Accurate Environmental Laboratories

August 28, 2019

Client: Perkins PWA

PO Box 9

Perkins, OK 74059

Requested By: Janet Noe

National Environmental Laboratory Accreditation Program
Kansas CERT # E-10219

Sample Project Name:	SDIWS Analysis Aug Yearly
Date Samples Received:	August 19, 2019 Time: 9:37 sample temp upon arrival at lab = 9°C - On Ice
Matrix:	Drinking Water
Lab Log Numbers:	**BH19004-01**
Work Order:	BH19004
Report #	BH19004-0828190944
EPA Lab ID#'s:	**Stillwater OK00092 Tulsa OK00983 OKC OK00129 ICR OK 001**
Oklahoma Certification:	Stillwater WasteWater, DEQ 8316/ Drinking Water, DEQ D9602 Tulsa WasteWater, DEQ 9905 / Drinking Water, DEQ D9901 Oklahoma City WasteWater DEQ 7202 / Drinking Water, DEQ D9937
Kansas Certification:	Stillwater NELAP CERT # E-10219 Oklahoma City NELAP CERT # E-10414
New Hampshire Cert.:	Oklahoma City Drinking Water NH ELAP Lab ID # 2072
Texas Certification:	Stillwater Drinking Water NELAP CERT # T105704533-14-1
Method Reference:	40 CFR 136, 141, and 261 Methods for Chemical Analysis of Water and Wastes EPA-600/4-79-020, March 1983. Test Methods for Evaluating Solid Wastes, SW-846, Final Update III. Standard Methods 1998 (20th Edition), Standard Methods 2005 (21st Edition) and Standard Methods 2011 (22nd Edition) for the Examination of Water and Wastewater.
Analysis Reference:	If qualifiers present in "Prep Info" or "Analysis Info", then analysis performed as follows: @= Tulsa Lab and * = OKC Lab. If no qualifiers present, then analysis performed at Stillwater Lab.

Accurate Environmental Laboratories certify that the test results performed at the Stillwater lab meet all requirements of NELAP. Any exceptions to this can be found in the report footer or Quality Control Section of the report.

This report is to only be replicated in its entirety.

Accurate Environmental sampling protocol was followed for any sampling performed by Accurate Field Services.

Sample: ***(HAA5_02) WWTF 125 S. Cimeron St*** **Location Code:** HAA5_02 **PWSID#:** OK2006012

Collection Type: Sample Time: 8/19/19 8:15 **Lab Log#** BH19004-01

Method/Parameter	Test	Result	Notes	PQL#	Prep Info	Analysis Info
THMs by EPA Method 524.3	Chloroform	BPQL ug/L		1.00	08/20/19 08:47 MMV	08/20/19 13:01 MMV
THMs by EPA Method 524.3	Bromodichloromethane	BPQL ug/L		1.00	08/20/19 08:47 MMV	08/20/19 13:01 MMV
THMs by EPA Method 524.3	Dibromochloromethane	2.60 ug/L		1.00	08/20/19 08:47 MMV	08/20/19 13:01 MMV
THMs by EPA Method 524.3	Bromoform	6.66 ug/L		1.00	08/20/19 08:47 MMV	08/20/19 13:01 MMV
THMs by EPA Method 524.3	Total THMs	9.26 ug/L		1.00	08/20/19 08:47 MMV	08/20/19 13:01 MMV
HAAs by EPA Method 552.2	Monochloroacetic acid	BPQL ug/L		2.00	08/21/19 08:51 AI	08/22/19 07:42 CHC
HAAs by EPA Method 552.2	Monobromoacetic acid	BPQL ug/L		1.00	08/21/19 08:51 AI	08/22/19 07:42 CHC
HAAs by EPA Method 552.2	Dichloroacetic acid	BPQL ug/L		1.00	08/21/19 08:51 AI	08/22/19 07:42 CHC
HAAs by EPA Method 552.2	Dibromoacetic acid	2.24 ug/L		1.00	08/21/19 08:51 AI	08/22/19 07:42 CHC
HAAs by EPA Method 552.2	Trichloroacetic acid	BPQL ug/L		1.00	08/21/19 08:51 AI	08/22/19 07:42 CHC
HAAs by EPA Method 552.2	Total HAAs	2.24 ug/L		1.00	08/21/19 08:51 AI	08/22/19 07:42 CHC

Notes and Definitions

MCL Analyte concentration may exceed Maximum Contaminant Limit (MCL) for EPA Primary or Secondary Drinking Water Regulations.

Analyte concentration may exceed regulatory limit.

PQL Practical Quantitation Limit - the method reporting limit (MRL) adjusted for any dilutions or other changes made to the sample to deal with interferences/matrix effects

BPQL Below Practical Quantitation Limit (if applicable).

The "Prep Date" of the QC analysis coincides with the characters of the appropriate QC Lab ID. (Example: 19 A 02 15 - BLK = 2019, Jan 2, Batch #15 - Blank)

Lab Manager

Quality Control Data

Blank Data

QC Lab #	Test Group	Test	Result	PQL	Flags
19H2001-BLK1	THMs by EPA Method 524.3	Chloroform	BPQL ug/L	1.00	
19H2001-BLK1	THMs by EPA Method 524.3	Bromodichloromethane	BPQL ug/L	1.00	
19H2001-BLK1	THMs by EPA Method 524.3	Dibromochloromethane	BPQL ug/L	1.00	
19H2001-BLK1	THMs by EPA Method 524.3	Bromoform	BPQL ug/L	1.00	
19H2001-BLK1	THMs by EPA Method 524.3	Total THMs	BPQL ug/L	1.00	
19H2107-BLK1	HAAs by EPA Method 552.2	Monochloroacetic acid	BPQL ug/L	2.00	
19H2107-BLK1	HAAs by EPA Method 552.2	Monobromoacetic acid	BPQL ug/L	1.00	
19H2107-BLK1	HAAs by EPA Method 552.2	Dichloroacetic acid	BPQL ug/L	1.00	
19H2107-BLK1	HAAs by EPA Method 552.2	Dibromoacetic acid	BPQL ug/L	1.00	
19H2107-BLK1	HAAs by EPA Method 552.2	Trichloroacetic acid	BPQL ug/L	1.00	
19H2107-BLK1	HAAs by EPA Method 552.2	Total HAAs	BPQL ug/L	1.00	

Laboratory Control Sample Data

Lab QC#	Test Group	Test Name	LCS Result	Spike Level	Units	% Rec.	Control Limits	Flags
19H2001-BS1	THMs by EPA Method 524.3	Chloroform	153	150.0	ug/L	102	85 - 115	
19H2001-BS1	THMs by EPA Method 524.3	Bromodichloromethane	145	150.0	ug/L	97	83.8 - 115	
19H2001-BS1	THMs by EPA Method 524.3	Dibromochloromethane	132	150.0	ug/L	88	85 - 115	
19H2001-BS1	THMs by EPA Method 524.3	Bromoform	128	150.0	ug/L	85	85 - 115	
19H2001-BS2	THMs by EPA Method 524.3	Chloroform	56.6	50.00	ug/L	113	85 - 115	
19H2001-BS2	THMs by EPA Method 524.3	Bromodichloromethane	52.7	50.00	ug/L	105	83.8 - 115	
19H2001-BS2	THMs by EPA Method 524.3	Dibromochloromethane	46.8	50.00	ug/L	94	85 - 115	
19H2001-BS2	THMs by EPA Method 524.3	Bromoform	46.6	50.00	ug/L	93	85 - 115	
19H2001-CCV1	THMs by EPA Method 524.3	Chloroform	1.02	1.000	ug/L	102	50 - 150	
19H2001-CCV1	THMs by EPA Method 524.3	Bromodichloromethane	0.910	1.000	ug/L	91	50 - 150	
19H2001-CCV1	THMs by EPA Method 524.3	Dibromochloromethane	0.780	1.000	ug/L	78	50 - 150	
19H2001-CCV1	THMs by EPA Method 524.3	Bromoform	0.620	1.000	ug/L	62	50 - 150	
19H2107-BS1	HAAs by EPA Method 552.2	Monochloroacetic acid	14.3	12.00	ug/L	119	85 - 125	
19H2107-BS1	HAAs by EPA Method 552.2	Monobromoacetic acid	8.96	8.000	ug/L	112	85 - 130	
19H2107-BS1	HAAs by EPA Method 552.2	Dichloroacetic acid	13.0	12.00	ug/L	109	83.4 - 130	
19H2107-BS1	HAAs by EPA Method 552.2	Dibromoacetic acid	4.35	4.000	ug/L	109	70 - 130	
19H2107-BS1	HAAs by EPA Method 552.2	Trichloroacetic acid	4.81	4.000	ug/L	120	73.9 - 130	
19H2107-MRL1	HAAs by EPA Method 552.2	Monochloroacetic acid	1.45	2.000	ug/L	72	50 - 150	
19H2107-MRL1	HAAs by EPA Method 552.2	Monobromoacetic acid	1.24	1.000	ug/L	124	50 - 150	
19H2107-MRL1	HAAs by EPA Method 552.2	Dichloroacetic acid	1.02	1.000	ug/L	102	50 - 150	
19H2107-MRL1	HAAs by EPA Method 552.2	Dibromoacetic acid	0.557	1.000	ug/L	56	50 - 150	
19H2107-MRL1	HAAs by EPA Method 552.2	Trichloroacetic acid	0.630	1.000	ug/L	63	50 - 150	

Quality Control Data

LCS Duplicate Data

QC Lab#	Test Group	Test Name	LCS % Rec.	LCS Dup % Rec.	Recovery Limits	RPD	RPD Limit	Flags
19H2107-BSD1	HAAs by EPA Method 552.2	Monochloroacetic acid	119	121	85 - 125	2	20	
19H2107-BSD1	HAAs by EPA Method 552.2	Monobromoacetic acid	112	114	85 - 130	2	20	
19H2107-BSD1	HAAs by EPA Method 552.2	Dichloroacetic acid	109	112	83.4 - 130	3	20	
19H2107-BSD1	HAAs by EPA Method 552.2	Dibromoacetic acid	109	108	70 - 130	0.7	20	
19H2107-BSD1	HAAs by EPA Method 552.2	Trichloroacetic acid	120	109	73.9 - 130	9	20	

Quality Control Data

Surrogate Recovery Data

QC Lab#	Test Group	Test Name	% Recovery	Recovery Limits	Flags
19H2001-BLK1	THMs by EPA Method 524.3	1,2-Dichlorobenzene-d4	99	85 - 115	
19H2001-BLK1	THMs by EPA Method 524.3	4-Bromofluorobenzene	94	85 - 115	
19H2001-BLK1	THMs by EPA Method 524.3	Methyl t-butyl ether-d3	99	78.5 - 115	
19H2001-BS1	THMs by EPA Method 524.3	1,2-Dichlorobenzene-d4	97	85 - 115	
19H2001-BS1	THMs by EPA Method 524.3	4-Bromofluorobenzene	102	85 - 115	
19H2001-BS1	THMs by EPA Method 524.3	Methyl t-butyl ether-d3	97	78.5 - 115	
19H2001-BS2	THMs by EPA Method 524.3	1,2-Dichlorobenzene-d4	98	85 - 115	
19H2001-BS2	THMs by EPA Method 524.3	4-Bromofluorobenzene	98	85 - 115	
19H2001-BS2	THMs by EPA Method 524.3	Methyl t-butyl ether-d3	99	78.5 - 115	
BH19004-01	THMs by EPA Method 524.3	1,2-Dichlorobenzene-d4	105	85 - 115	
BH19004-01	THMs by EPA Method 524.3	4-Bromofluorobenzene	89	85 - 115	
BH19004-01	THMs by EPA Method 524.3	Methyl t-butyl ether-d3	104	78.5 - 115	
19H2107-BLK1	HAAs by EPA Method 552.2	2,3-Dibromopropionic acid	94	70 - 130	
19H2107-BS1	HAAs by EPA Method 552.2	2,3-Dibromopropionic acid	117	70 - 130	
19H2107-BSD1	HAAs by EPA Method 552.2	2,3-Dibromopropionic acid	106	70 - 130	
BH19004-01	HAAs by EPA Method 552.2	2,3-Dibromopropionic acid	98	70 - 130	

* Complete Entire COC to be in Compliance*

☐ RUSH Due Date _____

Chain of Custody

Accurate Environmental Labs

Client Name- **Perkins PWA**

Project Name- SDWIS Analysis Aug Yearly

Accurate Work Order #	Date Sample Taken	Time Sample Taken	Matrix or Source (Refer. below)	Grab (G) or Comp (C)	Client I.D. / Sample Location or DEQ / EPA Location Code	Field Results (pH, Temp, Chlorine, ...) (note analysis & units) Location Code	Chlorine (mg/L)		Sample Preserv. & Container → / # of Container ↓	Ice NH4CL 60 mL Vials — Analysis Requested → HAA	Ice Na2S2O3 40 mL Vials — THM	In Field — Total Chlorine				
BH19004 -01	8-19-19	0815	DW	G	WWTF- 125 S. Cimeron St. Perkins, OK	HAA5_02	.42		4	2	2	*				

On-Site Info Raw **Alkalinity** (TOC Raw)= _____ mg/L **Turbidity** (E.Coli)= _____ ntu

Matrix Codes **DW** = Drinking water ; **WW** = Wastewater ; **SL** = Sludge ; **O** = Other_____

E.Coli Source- **GWUDI-FS**= Groundwater under direct influence of Flowing Stream **GWUDI-RL**= Groundwater under direct influence of Reservoir/Lake

Field Instrument Calibration -

Meter Type	Standards	Final Read.	Date , Time	Initials
HACH	4-7-10	7.02	0730/8-19-19	LJN

Comments Please include chlorine result.

080618 tkw

-- All Glass containers provided by Accurate Labs have Teflon lined lids --

-- All samples are scheduled to be disposed of in 4 weeks of receipt at Accurate. --

-- Hazardous samples will be returned to client or will be disposed of for a fee --

Certification by Company Official: I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above facility. Signature: _____ Date/Time 8-19-19 0815

Sampled By: Janet Noe Company: City of Perkins Sample Method: Grab

Relinquished By:	Date/Time	Received By:	Date/Time
Janet Noe	8-19-19 0816	Steven Pitzl	8-19-19 0816
☒ Relinquished to Lab By: Steven Pitzl	Date/Time 08-19-19 9:37	Received at Lab By: Mackenzie Thompson	Rec'd °C 9.4 — Date/Time 8/19/2019 9:37
☐ Relq'd to Log-In Fridge By:			

Reporting Requirements (standard 10-15 working days)	Compliance Reporting?	Yes or No (DMR, PWS,)	Oklahoma PWS ID #	RUSH Request (if available)
			OK2006012	_____ (Working Days)

Mail Report To: Janet Noe
City of Perkins
Address: P.O. Box 9
Perkins, OK 74059

Phone #: 405-714-7859 Fax #: 405-547 - 5440
Email: jnoe@cityofperkins.net

Mail Invoice To: Accounts Payable
City of Perkins
Address: PO Box 9
Perkins, OK 74059

Bid # - _____
PO # - _____

Phone #: 405-547-2445 Fax #: 405-547-5440