



January 3, 2018

E-Filing

Carlotta S. Stauffer, Commission Clerk  
Office of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0850

Re: Docket No. 20170166-WS- Application for limited proceeding rate increase in Orange County  
by Pluris Wedgefield, Inc.  
Our File No. 43085.20

Dear Ms. Stauffer:

At the customer meeting and in correspondence filed in this Docket some customers have expressed concerns over TTHM's in the water. Enclosed is a copy of the results of the fourth quarter water samples which shows TTHM's are undetectable.

Should you or Staff have any questions, please do not hesitate to give me a call.

Very truly yours,

*/s/ Martin S. Friedman*

MARTIN S. FRIEDMAN  
For the Firm

MSF/

cc: Maurice Gallarda (via e-mail)  
Joe Kuhns (via e-mail)  
Danijela Janjic, Esquire (via e-mail)  
Virginia Ponder, Esquire (via e-mail)  
Laura King (via e-mail)



# FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597  
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Phone: 772-343-8006 E86562 (South Lab)  
Phone: 850-973-6878 E82405 (North Lab)  
Phone: 305-743-8598 E35834 (Keys Lab)

Pluris-Wedgefield-DW Attn- Joe Kuhns  
1102 South Florida Ave  
Lakeland, FL 33803

PO #: GPFWW  
Client Project #: 3480149  
Date Sampled: Dec 21, 2017  
Jan 3, 2018; Invoice: 352769

### Report Summary

Date Received: Dec 21, 2017

FCL Project Manager: Robert J. Carpenter

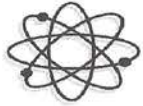
Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
352769DW1	19520 Glen Elm	EPA524.2	CLS	Main Lab	Drinking Water
		EPA552.3	CTH	Main Lab	
		FT2000	STP	Main Lab	
352769DW2	20719 Macon	X552	CTH	Main Lab	Drinking Water
		EPA524.2	CLS	Main Lab	
		EPA552.3	CTH	Main Lab	
		FT2000	STP	Main Lab	
		X552	CTH	Main Lab	

### Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAP Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.  
President/Technical Director



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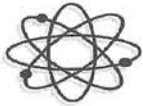
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## Analysis Report

Lab #:	Sampled:	Desc:	Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
352769DW1	12/21/17 10:37 AM	19520 Glen Elm	Disinfectant Residual	0.140	mg/L	1.00	0.0200	0.0200	10359735	FT2000		12/26/17
			Bromodichloromethane	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	75-27-4	12/27/17
			Bromoform	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	75-25-2	12/27/17
			Chloroform	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	67-66-3	12/27/17
			Dibromochloromethane	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	124-48-1	12/27/17
			Total THM	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	2950	12/27/17
			HAA_Extraction	40.0	ml	1.00			10360043	X552		12/29/17
			Bromoacetic acid	1.00 U	ug/L	1.00	1.00	2.00	10360284	EPA552.3	79-08-3	12/29/17
			Chloroacetic acid	2.83 I	ug/L	1.00	2.00	4.00	10360284	EPA552.3	79-11-8	12/29/17
			Dibromoacetic acid	5.88	ug/L	1.00	0.500	1.00	10360284	EPA552.3	631-64-1	12/29/17
			Dichloroacetic acid	6.01	ug/L	1.00	1.00	2.00	10360284	EPA552.3	79-43-6	12/29/17
			Total-HAA	16.1	ug/L	1.00	0.500	1.00	10360284	EPA552.3	2456	12/29/17
			Trichloroacetic acid	1.34	ug/L	1.00	0.500	1.00	10360284	EPA552.3	76-03-9	12/29/17

Lab #:	Sampled:	Desc:	Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
352769DW2	12/21/17 10:00 AM	20719 Macon	Disinfectant Residual	0.0700	mg/L	1.00	0.0200	0.0200	10359735	FT2000		12/26/17
			Bromodichloromethane	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	75-27-4	12/27/17
			Bromoform	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	75-25-2	12/27/17
			Chloroform	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	67-66-3	12/27/17
			Dibromochloromethane	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	124-48-1	12/27/17
			Total THM	0.500 U	ug/L	1.00	0.500	1.00	10359991	EPA524.2	2950	12/27/17
			HAA_Extraction	40.0	ml	1.00			10360043	X552		12/29/17
			Bromoacetic acid	1.45 I	ug/L	1.00	1.00	2.00	10360284	EPA552.3	79-08-3	12/29/17
			Chloroacetic acid	2.99 I	ug/L	1.00	2.00	4.00	10360284	EPA552.3	79-11-8	12/29/17
			Dibromoacetic acid	4.49	ug/L	1.00	0.500	1.00	10360284	EPA552.3	631-64-1	12/29/17
			Dichloroacetic acid	5.95	ug/L	1.00	1.00	2.00	10360284	EPA552.3	79-43-6	12/29/17



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Lab #:	Sampled:	Desc:	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
352769DW2	12/21/17 10:00 AM	20719 Macon							
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Total-HAA	14.9	ug/L	1.00	0.500	1.00	10360284	EPA552.3	2456	12/29/17
Trichloroacetic acid	0.500 U	ug/L	1.00	0.500	1.00	10360284	EPA552.3	76-03-9	12/29/17



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## Quality Report

Quality Control Batch: 10359991

Analyst: CLS

Blank	Result	Units
Bromodichloromethane	0.500U	ug/L
Bromoform	0.500U	ug/L
Chloroform	0.500U	ug/L
Dibromochloromethane	0.500U	ug/L
Total THM	0.500U	ug/L

Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Bromodichloromethane	46.6	ug/L	40.0	116.40	50.00-170.00
Bromoform	44.9	ug/L	40.0	112.28	50.00-170.00
Chloroform	38.3	ug/L	40.0	95.80	50.00-170.00
Dibromochloromethane	48.7	ug/L	40.0	121.65	50.00-170.00
Total THM	178	ug/L	160	111.53	50.00-170.00

Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample
Bromodichloromethane	23.1	ug/L	20.0	115.30	50.00-170.00	0.500U
Bromoform	23.0	ug/L	20.0	115.00	50.00-170.00	0.500U
Chloroform	18.5	ug/L	20.0	92.70	50.00-170.00	0.500U
Dibromochloromethane	24.4	ug/L	20.0	121.80	50.00-170.00	0.500U
Total THM	89.0	ug/L	80.0	111.20	50.00-170.00	0.500U

Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Bromodichloromethane	26.1	ug/L	20.0	130.35	50.00-170.00	0.500U	12.25	30.00
Bromoform	25.8	ug/L	20.0	129.20	50.00-170.00	0.500U	11.63	30.00
Chloroform	20.5	ug/L	20.0	102.70	50.00-170.00	0.500U	10.24	30.00
Dibromochloromethane	27.9	ug/L	20.0	139.45	50.00-170.00	0.500U	13.51	30.00
Total THM	100	ug/L	80.0	125.42	50.00-170.00	0.500U	12.02	30.00



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Quality Control Batch: 10360284

Analyst: CTH

**Blank**

	Result	Units
Bromoacetic acid	1.00U	ug/L
Chloroacetic acid	2.00U	ug/L
Dibromoacetic acid	0.500U	ug/L
Dichloroacetic acid	1.00U	ug/L
Total-HAA	0.500U	ug/L
Trichloroacetic acid	0.500U	ug/L

**Laboratory Control Sample**

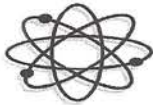
	Result	Units	Spike	%REC	%REC Lim
Bromoacetic acid	45.7	ug/L	50.0	91.36	50.00-170.00
Chloroacetic acid	45.3	ug/L	50.0	90.53	50.00-170.00
Dibromoacetic acid	49.4	ug/L	50.0	98.85	50.00-170.00
Dichloroacetic acid	48.0	ug/L	50.0	95.95	50.00-170.00
Trichloroacetic acid	63.8	ug/L	50.0	127.59	50.00-170.00

**Matrix Spike**

	Result	Units	Spike	%REC	%REC Lim	Sample
Bromoacetic acid	45.8	ug/L	50.0	91.68	50.00-170.00	1.00U
Chloroacetic acid	37.0	ug/L	50.0	74.10	50.00-170.00	2.00U
Dibromoacetic acid	45.9	ug/L	50.0	91.78	50.00-170.00	0.500U
Dichloroacetic acid	44.6	ug/L	50.0	89.20	50.00-170.00	1.00U
Trichloroacetic acid	46.8	ug/L	50.0	93.63	50.00-170.00	0.500U

**Matrix Spike Duplicate**

	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Bromoacetic acid	45.9	ug/L	50.0	91.84	50.00-170.00	1.00U	0.17	30.00
Chloroacetic acid	36.9	ug/L	50.0	73.82	50.00-170.00	2.00U	0.37	30.00
Dibromoacetic acid	46.2	ug/L	50.0	92.44	50.00-170.00	0.500U	0.72	30.00
Dichloroacetic acid	44.4	ug/L	50.0	88.82	50.00-170.00	1.00U	0.43	30.00
Trichloroacetic acid	53.2	ug/L	50.0	106.37	50.00-170.00	0.500U	12.74	30.00



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## Narrative Report

### Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted.

### Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

### Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.