

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase in water and wastewater rates in Alachua, Brevard, DeSoto, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc. DOCKET NO. DOCKET NO. 080121-WS FILED: DECEMBER 17, 2008

RECEIVED-FPSC  
08 DEC 17 PM 3:45  
COMMISSION  
CLERK

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Late-Filed Exhibit 205 of the Department of Environmental Protection (DEP), on behalf of the Florida Public Service Commission, has been furnished by U.S. Mail, this 17<sup>th</sup> day of December, 2008, to the following:

Aqua Utilities Florida, Inc.  
Ms. Kimberly A. Joyce  
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c/o The Florida Legislature  
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Cecilia Bradley  
The Capitol - PL01  
Tallahassee, FL 32399-1050



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FLORIDA PUBLIC SERVICE COMMISSION  
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DOCUMENT NUMBER-DATE

11665 DEC 17 08

FPSC-COMMISSION CLERK

DOCKET NO. 080121-WS

Application for increase in water and wastewater rates in Alachua, Brevard, DeSoto, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc.

LATE-FILED EXHIBIT 205  
RESPONSE TO COMMISSIONER QUESTIONS

DOCUMENT NUMBER-DATE

11665 DEC 17 8

REG. COMMISSION CLERK

In the two Oviedo Service hearings held on July 17, 2008, Commissioner Argenziano expressed several concerns, requested certain tests, and asked the Department of Environmental Protection (DEP) to respond to several questions. Each of these, with DEP's response is listed below:

1. On page 43, lines 9-14 (morning session), the Commissioner asked that the water at the elementary school be tested.

DEP Response: As requested during the service hearings, DEP organized and funded independent water sampling of potable water at Walker Elementary and at six locations throughout Aqua Utility's distribution lines.

On August 4, 2008, Seminole County Health Department sampled water from the cafeteria at Walker Elementary. The sample was analyzed for volatile organic contaminants. Total Trihalomethanes (TTHMs) was detected at 140 micrograms per liter (ug/l). above the regulatory limit of 80 ug/l. This was the only contaminant above the regulatory limit. Report is Attachment 1. Further, DEP followed up with the Seminole County School Board, as requested, to determine if TTHM notices are received and forwarded to parents. DEP was told by the school board that notices are posted in the school and sent to parents.

On August 5<sup>th</sup>, the Florida Rural Water Association and FDEP conducted sampling at 6 locations throughout the distribution system. The laboratory report is Attachment 2. There was no detection of nitrite, nitrate, e. coli, or total coliform, and heterotrophic plate counts contained no growth.

The results of these sampling events were communicated to representatives of the Chuluota community, Seminole County Public Schools, Representative Sandra Adams, Marshal Willis of the PSC, Cecilia Bradley with the Attorney General's Office, and the City of Oviedo.

2. On page 66 (last line) and page 67 (first two lines) of the morning session, the Commissioner asked if the annual and three-year tests for the "suites of chemicals" (Mr. Prather's terminology), included "chemicals that are not in use today."

DEP Response: Contaminants included in compliance monitoring are included in Attachment 3 (*MCL Tables from 62-550*) - primary inorganics (table 1), maximum residual disinfectant levels (table 2), disinfection byproducts (table 3), volatile organic contaminants (table 4), synthetic organic contaminants (table 5), secondaries (table 6). Chapters 62-555 and 62-560, F.A.C., adopt national primary and secondary drinking water standards of the Federal Government where possible, and otherwise create additional rules to fulfill state and federal requirements. I do not have a comprehensive list of "chemicals that are not in use today" with which to compare the list of regulated contaminants and cannot answer that question.

3. On page 135, the Commissioner asked that the tests on what was coming out of Chuluota's well cover the "gamut"(bacteria, chemicals, everything).

DEP Response: Independent sampling was conducted and water was analyzed for nitrites, nitrates, e. coli, total coliform, heterotrophic plate counts (non-coliform bacteria), and volatile organic compounds. Aqua Utilities is required to sample/analyze for contaminants as provided in response #2.

4. On page 157, lines 1-7 (morning session), the Commissioner asked:

- (a) If corrosive water could be harmful to the person drinking it?  
and
- (b) Whether something else other than hard water could be causing pitted faucets.

DEP Response:

(a) Some byproducts of corrosive water, such as lead and copper, can have health effects. The lead and copper tap sampling requirements rely on sampling at consumer taps and results for tap sampling are in compliance.

(b) Given the evidence that the raw water contains high levels of hydrogen sulfide, it is reasonable to believe this contributes to pitting.

5. On page 169, lines 17-22 (morning session), the Commissioner asked whether we were dealing with a hydrogen sulfide problem and whether the smell was for hydrogen sulfide or something other.

DEP Response: Results of water quality analyses provided by Dr. James Taylor confirm that sulfide levels in the raw water at Chuluota are high. Odor characterized as a "rotten egg smell" is associated with hydrogen sulfide.

6. On page 125, lines 20, through page 126, line 8, the residue on a Q-Tip provided by Michelle Arellano, from her neighbor, Ms. Cindy Russell, was discussed and the Q-Tip was given to Mr. Prather to see if he could determine what the substance on the Q-Tip was.

DEP Response: During the service hearing on July 17<sup>th</sup>, a dirty Q-Tip was given to Jeff Prather, DEP, and requested to be "tested" by DEP. Proper sample preservation and "chain of custody" are two essential requirements for obtaining valid analytical results. DEP had no knowledge or assurance on how the sample was taken, no knowledge of how the sample was maintained and no information concerning the sample hold time. Lacking these critical elements, DEP concluded that analysis of this item would not provide any valid information regarding the quality of the community's water or the compliance status of the utility. During this time, the DEP continued to focus on organizing and funding independent sampling of Chuluota's water.\*

\*Staff is attempting to have the other Q-Tip tested, and plans to file any results as a supplement to Late-Filed Exhibit 205.

7. Finally, on page 1073 of Vol. 8, the transcript for the evening session on December 10, 2008, the Commissioner asked: "What are the two locations at 390 Lake Lenelle and 803 Mazurka that made them testing points or considered locations where the water resides the longest."

DEP Response: Based on the *Stage 2 Disinfectant/Disinfection Byproduct Rule Monitoring Plan*, 390 Lake Lenelle and 803 Mazurka are identified as the locations representing maximum residence time (MRT) in the distribution system because of the location in relation to the water treatment plant – most distant point from the water treatment plant.

ENVIRONMENTAL CHEMISTRY ANALYSIS REPORT FOR:

JOB ID: SEMINOLE-080716-025 JOB STATUS: A PROJECT ID: TOX-HSET

SEMINOLE CHD  
ENVIRONMENTAL HEALTH SECTION  
400 AIRPORT BLVD

SANFORD FL 32773

ABBREVIATIONS, TERMS, AND SYMBOLS USED:

? = ILLEGIBLE INFORMATION ON SUBMISSION FORM  
Kg = KILOGRAM  
mg = MILLIGRAM  
ug = MICROGRAM  
L = LITER  
mL = MILLILITER  
m3 = CUBIC METER  
in2 = SQUARE INCH  
ft2 = SQUARE FOOT  
ppmv = PARTS PER MILLION BY VOLUME  
% = PERCENT  
DOH = DEPARTMENT OF HEALTH  
QC = QUALITY CONTROL  
MCL = MAXIMUM CONTAMINANT LEVEL  
MDL = METHOD DETECTION LIMIT  
PQL = PRACTICAL QUANTITATION LIMIT

\*\*\* PLEASE NOTE THIS REPORT'S USE OF RESULT QUALIFIERS. \*\*\*

AN EXPLANATION OF EACH ONE USED FOR THE RESULTS OF ANALYSIS  
COMPONENTS WILL APPEAR AT THE BOTTOM OF EACH SAMPLE REPORT.

RESULT VALUES INDICATED AS APPROXIMATE BY RESULT QUALIFIERS  
SHOULD BE REGARDED AS SUSPECT AND USED ONLY WITH DISCRETION.

PLEASE DIRECT QUESTIONS OR COMMENTS TO:

FLORIDA DEPARTMENT OF HEALTH  
BUREAU OF LABORATORIES  
P.O. BOX 210  
JACKSONVILLE, FLORIDA 32231

ORIA L. SMITH  
ENVIRONMENTAL CHEMISTRY LABORATORY  
(904) 791-1788

FL LABORATORY ID: E12700  
NELAC LAB ID NO.: 11746 (NY) EPA ID NUMBER: FLOO024

AUTHORIZED BY: ORIA L. SMITH DATE: 18-AUG-2008  
QA OFFICER OR DESIGNEE

REPORT DATE: 19-AUG-2008 PAGE: 1 OF 8

REPORT DATE: 19-AUG-2008

PAGE: 2 OF 8

JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

SAMPLE ID: 313680 / 080716-128

Project ID . . . . . TOX-HSET  
Charge Code . . . . . NO CHARGE  
Matrix ID . . . . . WATER  
Sample Priority . . . . . 5  
Date/Time Received . . . . . 5-AUG-2008 13:54:00.00  
Cooler Temperature (C) . . . . . 2.7  
NIST Thermometer Number . . . . . 50109846  
Demographics Entered On . . . . . 6-AUG-2008 15:38:00.00  
Demographics Entered By . . . . . RSHEPARD  
Prepared By (TB) . . . . . R. SHEPARD  
Lot ID (TB) . . . . . 08JULY2008  
Relinquish Date . . . . . 4-AUG-2008 00:00:00.00  
Sample Types . . . . . TRIP BLANK  
Trip Blank Type (TB) . . . . . PURGEABLES - CHLORINATED (ASCORBIC ACID)  
County Name . . . . . SEMINOLE  
County Code . . . . . 59

RESULTS	UNITS	QUALIFIERS
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ANALYSIS: [Purgeable Organics / EPA 524.2]

COMPONENTS: Bottle ID..... B			
Date and time analyzed..... 5-AUG-2008 15:42			
Analyst name..... L. CARLEY			
DICHLORODIFLUOROMETHANE.....	0.38	ug/L	U,J3
CHLOROMETHANE.....	0.30	ug/L	U
VINYL CHLORIDE.....	0.19	ug/L	U
BROMOMETHANE.....	0.30	ug/L	U
CHLOROETHANE.....	0.25	ug/L	U
TRICHLOROFLUOROMETHANE.....	0.17	ug/L	U
1,1-DICHLOROETHYLENE.....	0.28	ug/L	U
DICHLOROMETHANE (METHYLENE CHLOR)	0.29	ug/L	U
T-1,2-DICHLOROETHYLENE.....	0.34	ug/L	U
METHYL-TERT-BUTYL-ETHER (MTBE)..	0.31	ug/L	U
1,1-DICHLOROETHANE.....	0.29	ug/L	U
C-1,2-DICHLOROETHYLENE.....	0.30	ug/L	U
BROMOCHLOROMETHANE.....	0.32	ug/L	U
2,2-DICHLOROPROPANE.....	0.29	ug/L	U
1,2-DICHLOROETHANE.....	0.23	ug/L	U
1,1,1-TRICHLOROETHANE.....	0.20	ug/L	U
1,1-DICHLOROPROPENE.....	0.20	ug/L	U
CARBON TETRACHLORIDE.....	0.21	ug/L	U
BENZENE.....	0.17	ug/L	U
DIBROMOMETHANE.....	0.22	ug/L	U
1,2-DICHLOROPROPANE.....	0.16	ug/L	U
TRICHLOROETHYLENE.....	0.20	ug/L	U
C-1,3-DICHLOROPROPYLENE.....	0.19	ug/L	U
T-1,3-DICHLOROPROPYLENE.....	0.22	ug/L	U
1,1,2-TRICHLOROETHANE.....	0.19	ug/L	U
TOLUENE.....	0.20	ug/L	U
1,3-DICHLOROPROPANE.....	0.19	ug/L	U

REPORT DATE: 19-AUG-2008

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JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

SAMPLE ID: 313680 / 080716-128

ETHYLENE DIBROMIDE (EDB).....	0.25	ug/L	U
TETRACHLOROETHYLENE.....	0.26	ug/L	U
1,1,2-TETRACHLOROETHANE.....	0.19	ug/L	U
MONOCHLOROBENZENE.....	0.21	ug/L	U
ETHYLBENZENE.....	0.21	ug/L	U
STYRENE.....	0.21	ug/L	U
1,1,2-TETRACHLOROETHANE.....	0.36	ug/L	U
1,2,3-TRICHLOROPROPANE.....	0.26	ug/L	U
ISOPROPYLBENZENE (CUMENE).....	0.23	ug/L	U
BROMOBENZENE.....	0.21	ug/L	U
N-PROPYLBENZENE.....	0.25	ug/L	U
O-CHLOROTOLUENE.....	0.22	ug/L	U
P-CHLOROTOLUENE.....	0.21	ug/L	U
1,3,5-TRIMETHYLBENZENE.....	0.23	ug/L	U
TERT-BUTYLBENZENE.....	0.26	ug/L	U
1,2,4-TRIMETHYLBENZENE.....	0.22	ug/L	U
SEC-BUTYLBENZENE.....	0.25	ug/L	U
M-DICHLOROBENZENE.....	0.23	ug/L	U
P-DICHLOROBENZENE.....	0.24	ug/L	U
4-ISOPROPYLTOLUENE (P-CYMENE)...	0.28	ug/L	U
O-DICHLOROBENZENE.....	0.23	ug/L	U
N-BUTYLBENZENE.....	0.24	ug/L	U
DIBROMOCHLOROPROPANE (DBCP).....	0.38	ug/L	U
1,2,4-TRICHLOROBENZENE.....	0.32	ug/L	U
NAPHTHALENE.....	0.37	ug/L	U
HEXACHLOROBUTADIENE.....	0.34	ug/L	U
1,2,3-TRICHLOROBENZENE.....	0.31	ug/L	U
M,P-XYLENES.....	0.23	ug/L	U
O-XYLENE.....	0.20	ug/L	U
XYLENES (TOTAL).....	0.20	ug/L	U
CHLOROFORM (THM).....	0.27	ug/L	U
BROMODICHLOROMETHANE (THM).....	0.19	ug/L	U
DIBROMOCHLOROMETHANE (THM).....	0.23	ug/L	U
BROMOFORM (THM).....	0.26	ug/L	U
THMS (TOTAL).....	0.19	ug/L	U

Result Qualifier Key:

U - Indicates that the compound was analyzed for but not detected.  
J3 - The reported value failed to meet the established QC criteria.

REPORT DATE: 19-AUG-2008

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JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

SAMPLE ID: 313679 / 080716-127

Project ID . . . . . TOX-HSET  
Charge Code . . . . . QUARTERLY INVOICE  
Matrix ID . . . . . WATER  
Sample Priority . . . . . 5  
Date/Time Received . . . . . 5-AUG-2008 13:54:00.00  
Demographics Entered On . . . . . 6-AUG-2008 15:38:00.00  
Demographics Entered By . . . . . RSHEPARD  
Laboratory Remarks . . . . . SAMPLE CONTAINER(S) RETURNED TO THE  
LABORATORY EMPTY  
Sample Types . . . . . NONE GIVEN  
County Name . . . . . SEMINOLE  
County Code . . . . . 59

RESULTS	UNITS	QUALIFIERS
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ANALYSIS: [Purgeable Organics / EPA 524.2]

\*\* NOTE \*\*: TEST REQUESTED. ALL SAMPLE BOTTLES RECEIVED EMPTY, ANALYSIS NOT PERFORMED



REPORT DATE: 19-AUG-2008

PAGE: 5 OF 8

JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

SAMPLE ID: 313678 / 080716-126

Project ID . . . . . TOX-HSET  
Charge Code . . . . . QUARTERLY INVOICE  
Matrix ID . . . . . WATER  
Sample Priority . . . . . 5  
Date/Time Received . . . . . 5-AUG-2008 13:54:00.00  
Demographics Entered On . . . . . 6-AUG-2008 15:38:00.00  
Demographics Entered By . . . . . RSHEPARD  
Laboratory Remarks . . . . . SAMPLE CONTAINER(S) RETURNED TO THE  
LABORATORY EMPTY  
Sample Types . . . . . NONE GIVEN  
County Name . . . . . SEMINOLE  
County Code . . . . . 59

RESULTS	UNITS	QUALIFIERS
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ANALYSIS: [Purgeable Organics / EPA 524.2]

\*\* NOTE \*\*: TEST REQUESTED. ALL SAMPLE BOTTLES RECEIVED EMPTY. ANALYSIS NOT PERFORMED

REPORT DATE: 19-AUG-2008

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JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

SAMPLE ID: 313677 / 080716-125

Project ID ..... TOX-HSET  
Charge Code ..... QUARTERLY INVOICE  
Matrix ID ..... WATER  
Sample Priority ..... 5  
Date/Time Received .... 5-AUG-2008 13:54:00.00  
Cooler Temperature (C)... 2.7  
NIST Thermometer Number . 50109846  
Demographics Entered On . 6-AUG-2008 15:38:00.00  
Demographics Entered By . RSHEPARD  
Collector ..... J BITTLE  
Collector Phone ..... 407-665-3611  
Date/Time Collected ... 4-AUG-2008 12:45:00.00  
Relinquish Date ..... 4-AUG-2008 00:00:00.00  
Comments/Description ... WALKER ELEMENTARY SCHOOL  
Sample Types ..... COMPLAINT (CITIZENS OR COUNTY INITIATIVE)  
Sample/System Street ... 3101 SNOW HILL RD  
Sample/System City .... CHULUOTA  
Sample/System State ... FL  
Sample/System Zip .... 32766  
County Name ..... SEMINOLE  
County Code ..... 59  
Florida Unique Well ID .. AAM0435  
Contact 1 Last Name ... JOAN WALKER ELEMENTARY SCHOOL  
Contact 1 Street ..... 3101 SNOW HILL RD  
Contact 1 City ..... CHULUOTA  
Contact 1 State ..... FL  
Contact 1 Zip ..... 32766

RESULTS	UNITS	QUALIFIERS
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ANALYSIS: [Purgeable Organics / EPA 524.2]

COMPONENTS: Bottle ID..... B

Date and time analyzed.....	5-AUG-2008 16:11		
Analyst name.....	L. CARLEY		
DICHLORODIFLUOROMETHANE.....	0.38	ug/L	U,J3
CHLOROMETHANE.....	0.30	ug/L	U
VINYL CHLORIDE.....	0.19	ug/L	U
BROMOMETHANE.....	0.30	ug/L	U
CHLOROETHANE.....	0.25	ug/L	U
TRICHLOROFLUOROMETHANE.....	0.17	ug/L	U
1,1-DICHLOROETHYLENE.....	0.28	ug/L	U
DICHLOROMETHANE (METHYLENE CHLOR)	0.29	ug/L	U
T-1,2-DICHLOROETHYLENE.....	0.34	ug/L	U
METHYL-TERT-BUTYL-ETHER (MTBE)..	0.31	ug/L	U
1,1-DICHLOROETHANE.....	0.29	ug/L	U
C-1,2-DICHLOROETHYLENE.....	0.30	ug/L	U
BROMOCHLOROMETHANE.....	0.32	ug/L	U
2,2-DICHLOROPROPANE.....	0.29	ug/L	U
1,2-DICHLOROETHANE.....	0.23	ug/L	U
1,1,1-TRICHLOROETHANE.....	0.20	ug/L	U

REPORT DATE: 19-AUG-2008

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JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

SAMPLE ID: 313677 / 080716-125

1,1-DICHLOROPROPENE.....	0.20	ug/L	U
CARBON TETRACHLORIDE.....	0.21	ug/L	U
BENZENE.....	0.17	ug/L	U
DIBROMOMETHANE.....	0.22	ug/L	U
1,2-DICHLOROPROPANE.....	0.24	ug/L	I
TRICHLOROETHYLENE.....	0.20	ug/L	U
C-1,3-DICHLOROPROPYLENE.....	0.19	ug/L	U
T-1,3-DICHLOROPROPYLENE.....	0.22	ug/L	U
1,1,2-TRICHLOROETHANE.....	0.19	ug/L	U
TOLUENE.....	0.20	ug/L	U
1,3-DICHLOROPROPANE.....	0.19	ug/L	U
ETHYLENE DIBROMIDE (EDB).....	0.25	ug/L	U
TETRACHLOROETHYLENE.....	0.26	ug/L	U
1,1,1,2-TETRACHLOROETHANE.....	0.19	ug/L	U
MONOCHLOROBENZENE.....	0.21	ug/L	U
ETHYLBENZENE.....	0.21	ug/L	U
STYRENE.....	0.21	ug/L	U
1,1,2,2-TETRACHLOROETHANE.....	0.36	ug/L	U
1,2,3-TRICHLOROPROPANE.....	0.26	ug/L	U
ISOPROPYLBENZENE (CUMENE).....	0.23	ug/L	U
BROMOBENZENE.....	0.21	ug/L	U
N-PROPYLBENZENE.....	0.25	ug/L	U
O-CHLOROTOLUENE.....	0.22	ug/L	U
P-CHLOROTOLUENE.....	0.21	ug/L	U
1,3,5-TRIMETHYLBENZENE.....	0.23	ug/L	U
TERT-BUTYLBENZENE.....	0.26	ug/L	U
1,2,4-TRIMETHYLBENZENE.....	0.22	ug/L	U
SEC-BUTYLBENZENE.....	0.25	ug/L	U
M-DICHLOROBENZENE.....	0.23	ug/L	U
P-DICHLOROBENZENE.....	0.24	ug/L	U
4-ISOPROPYLTOLUENE (P-CYMENE)...	0.28	ug/L	U
O-DICHLOROBENZENE.....	0.23	ug/L	U
N-BUTYLBENZENE.....	0.24	ug/L	U
DIBROMOCHLOROPROPANE (DBCP).....	0.38	ug/L	U
1,2,4-TRICHLOROBENZENE.....	0.32	ug/L	U
NAPHTHALENE.....	0.37	ug/L	U
HEXACHLOROBUTADIENE.....	0.34	ug/L	U
1,2,3-TRICHLOROBENZENE.....	0.31	ug/L	U
M,P-XYLENES.....	0.25	ug/L	I
O-XYLENE.....	0.20	ug/L	U
XYLENES (TOTAL).....	0.25	ug/L	I
CHLOROFORM (THM).....	24	ug/L	
BROMODICHLOROMETHANE (THM).....	34	ug/L	
DIBROMOCHLOROMETHANE (THM).....	57	ug/L	
BROMOFORM (THM).....	27	ug/L	
THMS (TOTAL).....	140	ug/L	C

## Result Qualifier Key:

U - Indicates that the compound was analyzed for but not detected.  
 J3 - The reported value failed to meet the established QC criteria.

REPORT DATE: 19-AUG-2008

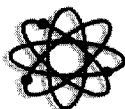
PAGE: 8 OF 8

JOB ID: SEMINOLE-080716-025 FOR SEMINOLE CHD

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SAMPLE ID: 313677 / 080716-125

I - The reported value is between the laboratory MDL and the laboratory PQL.  
C - Result exceeds maximum contaminant level as in Chapter 62-550 or 520: F.A.C.



**FLOWERS CHEMICAL LABORATORIES INC.**

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407-339-5984 Fax 407-260-6110 www.flowerslabs.com  
 8253 South U.S. Highway 1, Port St. Lucie FL 34952-2860 Phone 772-343-8006 Fax 772-343-8089  
 P.O. Box 1200, Madison FL 32341 Phone 850-973-6878 Fax 850-973-6878

Florida Rural Water Association  
 2970 Wellington Circle W. Suite 101  
 Tallahassee, FL 32309-6885

PO #: 3590186  
 Client Project #: Chuluota Water System  
 Date Sampled: Aug 4, 2008  
 Aug 7, 2008; Invoice: 72650

**Report Summary**

Date Received: Aug 4, 2008

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
72650DW1	1- Walker Elem.	COLITAG	TRB	Main Lab	Drinking Water
		EPA300.0	YGS	Main Lab	
		SM9215 B	TRB	Main Lab	
72650DW2	2 - 174 Velveteen	COLITAG	TRB	Main Lab	Drinking Water
		EPA300.0	YGS	Main Lab	
		SM9215 B	TRB	Main Lab	
72650DW3	3 - 315 Velveteen	COLITAG	TRB	Main Lab	Drinking Water
		EPA300.0	YGS	Main Lab	
		SM9215 B	TRB	Main Lab	
72650DW4	4 - 425 Live Oak	COLITAG	TRB	Main Lab	Drinking Water
		EPA300.0	YGS	Main Lab	
		SM9215 B	TRB	Main Lab	
72650DW5	5 - 1005 E.10th St.	COLITAG	TRB	Main Lab	Drinking Water
		EPA300.0	YGS	Main Lab	
		SM9215 B	TRB	Main Lab	
72650DW6	6 - 115 W 6th St.	COLITAG	TRB	Main Lab	Drinking Water
		EPA300.0	YGS	Main Lab	
		SM9215 B	TRB	Main Lab	

**Certificate of Results**

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC 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



**FLOWERS CHEMICAL LABORATORIES INC.**

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Florida Rural Water Association  
 2970 Wellington Circle W. Suite 101  
 Tallahassee, FL 32309-6885

PO #: 3590186  
 Client Project #: Chuluota Water System  
 Date Sampled: Aug 4, 2008  
 Aug 7, 2008; Invoice: 72650

**Analysis Report**

Lab #	Sampled	Desc	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analized
<b>Lab #: 72650DW1 Sampled: 08/04/08 09:45 AM Desc: 1 - Walker Elem.</b>											
Parameter											
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109274	EPA300.0	14797-65-0			08/05/08 12:30 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109276	EPA300.0	14797-55-8			08/05/08 12:30 PM
E. Coli	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG				08/02/08
Total Coliform	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG	E761700			08/02/08 01:00 PM
HPC_2day@35	1.00 U	cfu/ml	1.00	1.00	3.00	10109404	SMS215 B				08/04/08
<b>Lab #: 72650DW2 Sampled: 08/04/08 09:50 AM Desc: 2 - 174 Velveten</b>											
Parameter											
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109274	EPA300.0	14797-65-0			08/05/08 12:30 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109276	EPA300.0	14797-55-8			08/05/08 12:30 PM
E. Coli	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG				08/02/08
Total Coliform	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG	E761700			08/02/08 01:00 PM
HPC_2day@35	1.00 U	cfu/ml	1.00	1.00	3.00	10109404	SMS215 B				08/04/08
<b>Lab #: 72650DW3 Sampled: 08/04/08 10:05 AM Desc: 3 - 315 Velveten</b>											
Parameter											
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109274	EPA300.0	14797-65-0			08/05/08 12:30 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109276	EPA300.0	14797-55-8			08/05/08 12:30 PM
E. Coli	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG				08/02/08
Total Coliform	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG	E761700			08/02/08 01:00 PM
HPC_2day@35	1.00 U	cfu/ml	1.00	1.00	3.00	10109404	SMS215 B				08/04/08
<b>Lab #: 72650DW4 Sampled: 08/04/08 10:25 AM Desc: 4 - 425 Live Oak</b>											
Parameter											
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109274	EPA300.0	14797-65-0			08/05/08 12:30 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10109276	EPA300.0	14797-55-8			08/05/08 12:30 PM
E. Coli	1.00 A	P/A	1.00	1.00	1.00	10109294	COLITAG				08/02/08



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 Tallahassee, FL 32309-6885

PO #: 3550186  
 Client Project #: Chuluota Water System  
 Date Sampled: Aug 4, 2008  
 Aug 7, 2008; Invoice: 72650

Lab #:	Sampled:	Desc:	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
72650DW4	08/04/08 10:25 AM	4 - 425 Live Oak									
Parameter											
Total Coliform	1.00 A	P/A	1.00	1.00	1.00	1.00	1.00	10109294	COLITAG	E761700	08/02/08 01:00 PM
HPC_2day@35	1.00 U	ctu/ml	1.00	1.00	1.00	1.00	3.00	10109404	SM9215 B		08/04/08
72650DW5	08/04/08 10:40 AM	5 - 1005 E. 10th St.									
Parameter											
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	0.100	0.100	10109274	EPA300.0	14797-65-0	08/05/08 12:30 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	0.100	0.100	10109276	EPA300.0	14797-55-8	08/05/08 12:30 PM
E. Coli	1.00 A	P/A	1.00	1.00	1.00	1.00	1.00	10109294	COLITAG		08/02/08
Total Coliform	1.00 A	P/A	1.00	1.00	1.00	1.00	1.00	10109294	COLITAG	E761700	08/02/08 01:00 PM
HPC_2day@35	1.00 U	ctu/ml	1.00	1.00	1.00	1.00	3.00	10109404	SM9215 B		08/04/08
72650DW6	08/04/08 10:50 AM	6 - 115 W 6th St.									
Parameter											
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	0.100	0.100	10109274	EPA300.0	14797-65-0	08/05/08 12:30 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	0.100	0.100	10109276	EPA300.0	14797-55-8	08/05/08 12:30 PM
E. Coli	1.00 A	P/A	1.00	1.00	1.00	1.00	1.00	10109294	COLITAG		08/02/08
Total Coliform	1.00 A	P/A	1.00	1.00	1.00	1.00	1.00	10109294	COLITAG	E761700	08/02/08 01:00 PM
HPC_2day@35	1.00 U	ctu/ml	1.00	1.00	1.00	1.00	3.00	10109404	SM9215 B		08/04/08



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PO #: 3590186  
 Client Project #: Chuluota Water System  
 Date Sampled: Aug 4, 2008  
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**Quality Report**

<b>Quality Control Batch: 10109274</b>		<b>Analyst: YGS</b>							
<b>Blank</b>	<b>Result</b>	<b>Units</b>							
Nitrite(as N)	0.0500U	mg/L							
<b>Laboratory Control Sample</b>	<b>Result</b>	<b>Units</b>	<b>Spike</b>	<b>%REC</b>	<b>%REC Lim</b>				
Nitrite(as N)	2.17	mg/L	2.00	108.75	79.13-118.50				
<b>Matrix Spike</b>	<b>Result</b>	<b>Units</b>	<b>Spike</b>	<b>%REC</b>	<b>%REC Lim</b>	<b>Sample</b>			
Nitrite(as N)	2.96	mg/L	2.00	147.97	35.24-158.76	-0.00270			
<b>Matrix Spike Duplicate</b>	<b>Result</b>	<b>Units</b>	<b>Spike</b>	<b>%REC</b>	<b>%REC Lim</b>	<b>Sample</b>	<b>RPD</b>	<b>RPD Lim</b>	
Nitrite(as N)	2.98	mg/L	2.00	149.26	35.24-158.76	-0.00270	0.87	18.15	
<b>Quality Control Batch: 10109276</b>		<b>Analyst: YGS</b>							
<b>Blank</b>	<b>Result</b>	<b>Units</b>							
Nitrate(as N)	0.0500U	mg/L							
<b>Laboratory Control Sample</b>	<b>Result</b>	<b>Units</b>	<b>Spike</b>	<b>%REC</b>	<b>%REC Lim</b>				
Nitrate(as N)	2.19	mg/L	2.00	109.61	79.67-117.37				
<b>Matrix Spike</b>	<b>Result</b>	<b>Units</b>	<b>Spike</b>	<b>%REC</b>	<b>%REC Lim</b>	<b>Sample</b>			
Nitrate(as N)	2.36	mg/L	2.00	113.48	50.51-145.48	0.0887			
<b>Matrix Spike Duplicate</b>	<b>Result</b>	<b>Units</b>	<b>Spike</b>	<b>%REC</b>	<b>%REC Lim</b>	<b>Sample</b>	<b>RPD</b>	<b>RPD Lim</b>	
Nitrate(as N)	2.26	mg/L	2.00	108.66	50.51-145.48	0.0887	4.18	25.04	
<b>Quality Control Batch: 10109294</b>		<b>Analyst: TRB</b>							
<b>Blank</b>	<b>Result</b>	<b>Units</b>							
E. Coli	1.00	PIA							





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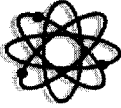
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<b>Quality Control Batch:</b> 10109294	<b>Analyst:</b> TRB
<b>Blank</b>	<b>Result</b> <b>Units</b>
Total Coliform	1.00      P/A

<b>Quality Control Batch:</b> 10109404	<b>Analyst:</b> TRB
<b>Blank</b>	<b>Result</b> <b>Units</b>
HPC_2day@35	1.00U      cfu/ml



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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. Sample results reported as dissolved were field filtered.

#### 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	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
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.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
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.

**TABLE 1  
MAXIMUM CONTAMINANT LEVELS FOR INORGANIC COMPOUNDS**

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT	MCL (mg/L)
1074	Antimony	0.006
1005	Arsenic	0.05 through 12/31/2004 0.010 on and after 01/01/2005
1094	Asbestos	7 MFL
1010	Barium	2
1075	Beryllium	0.004
1015	Cadmium	0.005
1020	Chromium	0.1
1024	Cyanide (as free Cyanide)	0.2
1025	Fluoride	4.0
1030	Lead	0.015
1035	Mercury	0.002
1036	Nickel	0.1
1040	Nitrate	10 (as N)
1041	Nitrite	1 (as N)
	Total Nitrate and Nitrite	10 (as N)
1045	Selenium	0.05
1052	Sodium	160
1085	Thallium	0.002

Abbreviations Used: MCL = maximum contaminant level;  
MFL = million fibers per liter (longer than 10 micrometers);  
mg/L = milligrams per liter.

**TABLE 2  
MAXIMUM RESIDUAL DISINFECTANT LEVELS**

FEDERAL CONTAMINANT ID NUMBER	DISINFECTANT RESIDUAL	MRDL (mg/L)
1012	Chlorine	4.0 (as Cl <sub>2</sub> )
1006	Chloramines	4.0 (as Cl <sub>2</sub> )
1008	Chlorine Dioxide	0.8 (as ClO <sub>2</sub> )

Abbreviations Used: mg/L = milligrams per liter;  
MRDL = maximum residual disinfectant level.

**TABLE 3  
STAGE 1 MAXIMUM CONTAMINANT LEVELS FOR DISINFECTION BYPRODUCTS**

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT	MCL (mg/L)
2950	Total Trihalomethanes (TTHM)	0.080
2456	Haloacetic Acids (Five) (HAA5)	0.060
1011	Bromate	0.010
1009	Chlorite	1.0

Abbreviations Used: MCL = maximum contaminant level;  
mg/L = milligrams per liter.

**TABLE 4**  
**MAXIMUM CONTAMINANT LEVELS FOR VOLATILE ORGANIC CONTAMINANTS**

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT & (CAS NUMBER)	MCL (mg/L)
2977	1,1-Dichloroethylene (75-35-4)	0.007
2981	1,1,1-Trichloroethane (71-55-6)	0.2
2985	1,1,2-Trichloroethane (79-00-5)	0.005
2980	1,2-Dichloroethane (107-06-2)	0.003
2983	1,2-Dichloropropane (78-87-5)	0.005
2378	1,2,4-Trichlorobenzene (120-82-1)	0.07
2990	Benzene (71-43-2)	0.001
2982	Carbon tetrachloride (56-23-5)	0.003
2380	cis-1,2-Dichloroethylene (156-59-2)	0.07
2964	Dichloromethane (75-09-2)	0.005
2992	Ethylbenzene (100-41-4)	0.7
2989	Monochlorobenzene (108-90-7)	0.1
2968	o-Dichlorobenzene (95-50-1)	0.6
2969	para-Dichlorobenzene (106-46-7)	0.075
2996	Styrene (100-42-5)	0.1
2987	Tetrachloroethylene (127-18-4)	0.003
2991	Toluene (108-88-3)	1
2979	trans-1,2-Dichloroethylene (156-60-5)	0.1
2984	Trichloroethylene (79-01-6)	0.003
2976	Vinyl chloride (75-01-4)	0.001
2955	Xylenes (total) (1330-20-7)	10

Abbreviations used: CAS Number = Chemical Abstract System Number;  
MCL = maximum contaminant level;  
mg/L = milligrams per liter.

**TABLE 5**  
**MAXIMUM CONTAMINANT LEVELS FOR SYNTHETIC ORGANIC CONTAMINANTS**

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT & (CAS NUMBER)	MCL (mg/L)	Regulatory Detection Limit (mg/L)
2063	2,3,7,8-TCDD (Dioxin) (1746-01-6)	3 X 10 <sup>-8</sup>	5 x 10 <sup>-9</sup>
2105	2,4-D (94-75-7)	0.07	0.0001
2110	2,4,5-TP (Silvex) (93-72-1)	0.05	0.0002
2051	Alachlor (15972-60-8)	0.002	0.0002
2050	Atrazine (1912-24-9)	0.003	0.0001
2306	Benzo(a)pyrene (50-32-8)	0.0002	0.00002
2046	Carbofuran (1563-66-2)	0.04	0.0009
2959	Chlordane (57-74-9)	0.002	0.0002
2031	Dalapon (75-99-0)	0.2	0.001
2035	Di(2-ethylhexyl)adipate (103-23-1)	0.4	0.0006
2039	Di(2-ethylhexyl)phthalate (117-81-7)	0.006	0.0006
2931	Dibromochloropropane (DBCP) (96-	0.0002	0.00002
2041	Dinoseb (88-85-7)	0.007	0.0002
2032	Diquat (85-00-7)	0.02	0.0004
2033	Endothall (145-73-3)	0.1	0.009
2005	Endrin (72-20-8)	0.002	0.00001
2946	Ethylene dibromide (EDB) (106-93-	0.00002	0.00001
2034	Glyphosate (1071-83-6)	0.7	0.006
2065	Heptachlor (76-44-8)	0.0004	0.00004
2067	Heptachlor epoxide (1024-57-3)	0.0002	0.00002
2274	Hexachlorobenzene (118-74-1)	0.001	0.0001
2042	Hexachlorocyclopentadiene (77-47-	0.05	0.0001
2010	Lindane (58-89-9)	0.0002	0.00002
2015	Methoxychlor (72-43-5)	0.04	0.0001
2036	Oxamyl (vydate) (23135-22-0)	0.2	0.002
2326	Pentachlorophenol (87-86-5)	0.001	0.00004
2040	Picloram (1918-02-1)	0.5	0.0001
2383	Polychlorinated biphenyls (PCBs)	0.0005	0.0001

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT & (CAS NUMBER)	MCL (mg/L)	Regulatory Detection Limit (mg/L)
2037	Simazine (122-34-9)	0.004	0.00007
2020	Toxaphene (8001-35-2)	0.003	0.001

Abbreviations used: CAS Number = Chemical Abstract System Number;  
MCL = maximum contaminant level;  
mg/L = milligrams per liter.

NOTE: The Detection Limits listed in this table become effective January 22, 2004.

**TABLE 6  
SECONDARY DRINKING WATER STANDARDS**

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT	SMCL (mg/L)*
1002	Aluminum	0.2
1017	Chloride	250
1022	Copper	1
1025	Fluoride	2.0
1028	Iron	0.3
1032	Manganese	0.05
1050	Silver	0.1
1055	Sulfate	250
1095	Zinc	5
1905	Color	15 color units
1920	Odor**	3 (threshold odor number)
1925	pH	6.5 - 8.5
1930	Total Dissolved Solids	500
2905	Foaming Agents	0.5

Abbreviations Used:

SMCL = maximum contaminant level;  
mg/L = milligrams per liter.

\* Except color, odor, and pH.

\*\* For purpose of compliance with ground water quality secondary standards, as referenced in Chapter 62-520, F.A.C., levels of ethylbenzene exceeding 30 micrograms per liter, toluene exceeding 40 micrograms per liter, or xylenes exceeding 20 micrograms per liter shall be considered equivalent to exceeding the drinking water secondary standard for odor.