

Case Nos. 1D98-0713 and 1D98-0727

Florida Water Services Corporation vs. Florida Public Service Commission ("PSC");
Sugarmill Woods Civic Association, Inc. vs. Southern States Utilities, Inc. and the
PSC

vs. Joseph J. DeRouin, et al.

PSC Docket No. 920199-WS

Charles L. Sweat

Late File Exhibit #98

Docket No. 920199-WS

Containing

**Deltona Lakes facilities - recheck of MCL
levels - 21 pages**

DOCUMENT NUMBER-DATE

13782 NOV 23 1992

FPSC-RECORDS/REPORTING



Deltona Office

255 Enterprise Rd.
Deltona, FL 32725

Business

[407] 574-6680

Customer Service

[407] 574-6608

June 1, 1990

Paul J. Morrison, Section Supervisor,
Drinking Water Compliance/Enforcement
FL Department of Environmental Regulation
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767

Dear Mr. Morrison:

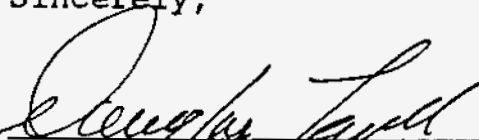
I am writing in response to your letter dated May 8, 1990,
regarding water sampling at Deltona Utilities.

We are presently in the process of taking new water samples
and testing for the contaminants that were out of compliance.

Please note the attached sample results from Flowers Chemical
Laboratories, Inc.

I want to apologize for the delay, I will forward final
results as soon as I receive them from the lab.

Sincerely,


Douglas Lovell, Director,
Utility Operations

DL:je

cc: Charles Sweat
Rafael Terrero
Jim Ragsdale



Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary
Alex Alexander, Deputy Assistant Secretary

May 8, 1990

Southern States Utilities Services
1000 Color Place
Apopka, Florida 32703

OCD-PW-90-0266

Attention: Rafael A. Terrero, P.E.

Volusia County - PW
Deltona Utilities
PWS ID Number 3640287

Dear Mr. Terrero:

This will confirm receipt of copies of chemical analysis results for samples collected on February 5, 1990 from the distribution system and performed by Orlando Laboratories, Incorporated.

The concentrations of the following parameters exceed the maximum contaminant levels (MCL):

HEAT-4 →
SHEET
1-3

Location	Parameter	Result	MCL	3 day Analysis		
				5-17-90	5-18-90	5-24
Unit 21	turbidity	1.5 n.t.u.	1.0 n.t.u.	1.6		
Unit 30	turbidity	17.0 n.t.u.	1.0 n.t.u.	.78	1.25	1.0
Unit 30	iron	0.789 mg/l	0.30 mg/l	.25	.35	.6
Unit 30	chloride	280.0 mg/l	250.0 mg/l	225.9	231.03	231
Unit 30	color	50 c.u.	15 c.u.	7.5	15	7.0
Unit 30	total dissolved solids (TDS)	710 mg/l	500 mg/l	608.1	472.5	688

In view of these results and pursuant to Rules 17-550.520(2), and 17-550.510(5)(d), Florida Administrative Code, you are required to initiate and complete three (3) additional analyses for iron, chloride, color and TDS and one (1) additional analysis for turbidity (collected from the same sampling points) within one month.

Mr. Rafael A. Terrero
OCD-PW-90-0266
May 8, 1990
Page Two

Samples shall be collected and submitted to an approved laboratory and this department notified of the date of submittal and laboratory name no later than fourteen (14) days from the date of this letter. You must submit a copy of the laboratory results to this office upon your receipt of such from the laboratory.

If you have any questions, please call Ms. Marie Carrasquillo at (407)894-7555.

Your continued cooperation in our drinking water program will be appreciated.

Sincerely,



Paul J. Morrison, Section Supervisor
Drinking Water Compliance/Enforcement

PJM:mc/mg

cc: Volusia County Health Department

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From: Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: May 21 1990
PO Number: N/A
PO Number Deltona
FDHRS Lab# : 83139
FDER Lab# : E83018
NCDEHNR Lab# : 296
SCDHEC Lab# : 96019

Parameters: TDS TB COLOR FE CL
Date Received: May 17 1990

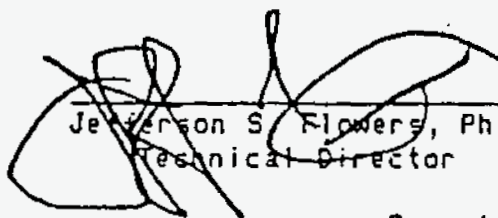
Lab Num: 8655-8655

REPORT OF ANALYSIS

Parameter	Unit	Method	%ACC	%PRC	ROCKHI
		Detection Limit			LL
Color	PCU	5	-	-	7.5
Chloride	mg/L	0.1	101	0.56	225.9
TDS	mg/L	2.5	103	2.53	608.1
Turbidity	NTU	0.05	93.8	3.61	0.78
Iron	mg/L	0.01	101	0.88	0.25

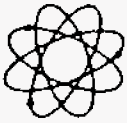
Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: May 23 1990

PO Number: Rockhill

PO Number Deltona

FDHRS Lab# : 83139

FDER Lab# : E83018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

Parameters: TDS TB CL COLOR FE

Date Received:

May 18 1990

Lab Num: 8710-8710


REPORT OF ANALYSIS

8710

Parameter	Unit	Method	%ACC	%PRC	ROCK HILL
	Detection Limit				
Color	PCU	5	-	-	15
Chloride	mg/L	.015	106	1.29	231.03
TDS	mg/L	2.5	95.0	2.5	42.5 472.5
Turbidity	NTU	0.05	93.8	3.61	1.25
Iron	mg/L	0.01	97.3	2.36	0.35

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director



**SSU
SERVICES**

Douglas Lovell

General Offices

1000 Color Place
Apopka, FL 32703
(407) 880-0058

December 14, 1990

Mr. Joseph M. McNamara, P.E.
Manager, Drinking Water Program
Florida Department of Environmental Regulation
3319 Maguire Blvd. Suite 232
Orlando, Florida 32803-3767

re: Volusia County - PW
Deltona Utilities
PWS ID Number 3640287

Dear Mr. McNamara:

This is to acknowledge your letter to Mr. Douglas Lovell dated July 6, 1990.

In order to correct the situation, I personally directed to change the flow pattern in the area where high turbidity, iron and TDS were found.

After changing the flow pattern, samples were taken and are shown in the laboratory analysis attached for your information. As it can be seen, these samples do not exceed the MCL.

It was concluded that corrective actions to modify the water treatment plant are not necessary at this time.

I trust that the results obtained will sooth your concerns, and if you have any questions, or need further information, please feel free to call us.

Very truly yours,

SSU SERVICES

Rafael A. Terrero
Rafael A. Terrero, P.E.
Chief Engineer
Planning and Engineering

*into attached file
Ralph 8/13/90*

c: Doug Lovell
Frank Sanderson
Charles L. Sweat

RECEIVED

DEC 18 1990

SSU SERVICES

Federal Express 9402278480

3. DAY RESAMPLE FOR TURBIDITY

SEE EXHIBIT #	DATED	RESULTS
#1	7-29-90	.8 NTU
#2	7-30-90	.9 NTU
#3	7-31-90	.9 NTU

3. DAY RESAMPLE FOR IRON

SEE EXHIBIT #	DATED	RESULTS
#4	6-7-90	0.16
#5	6-8-90	0.247
#6	6-9-90	0.254

3. DAY RESAMPLE FOR CHLORIDES

SEE EXHIBIT #	DATED	RESULTS
#7	4-3-90	223.6
#8	4-4-90	204.6
#9	4-6-90	172

3. DAY RESAMPLE FOR COLOR

SEE EXHIBIT #	DATED	RESULTS
#10	5-17-90	7.5
#11	5-18-90	15
#12	5-21-90	7.5

3. DAY RESAMPLE FOR TDS.

SEE EXHIBIT #	DATED	RESULTS
#13	7-17-90	492.5
	7-18-90	466.6
	7-19-90	493.1

DELTONA UTILITIES
P.O. BOX 6309
Deltona, Fla. 32728

IRS# 53319 -----Microbiology, Turbidity.

Parameter	Unit	Lab#	Method	MDL	Analyst	Date
Turbidity	NTU	<u>53319</u>	<u>EPDA 1801</u>	<u>.05</u>	<u>RE</u>	<u>7-29-90</u>
Site or # of	Sample Received From	<u>Rac. Hill St.</u>				

Data Release Authorization:

Richard G. Foster

Richard G. Foster, Supervisor

Exhibit #1

DELTONA UTILITIES

P.O. BOX 5309

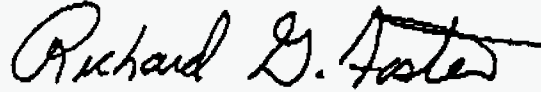
Deltona, Fla. 32728

HRS# 53319

-----Microbiology, Turbidity.

Parameter	Unit	Lab# <u>53319</u>	Method	MDL	Analyst	Date
Turbidity	NTU	<u>0.9</u>	<u>EPA 1801</u>	<u>05</u>	<u>RF</u>	<u>7-30-90</u>
Site or # of Sample Received From		<u>Rockwell St.</u>				

Data Release Authorization:



Richard G. Foster, Supervisor

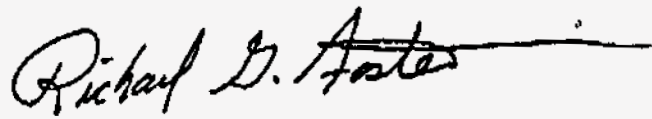
EXHIBIT
2

DELTONA UTILITIES
P.O. BOX 5309
Deltona, Fla. 32728

RS# 53319 -----Microbiology, Turbidity.

Parameter	Unit	Lab#	Method	MDL	Analyst	Date
Turbidity	NTU	<u>53319</u>	<u>EPO 1821</u>	<u>.05</u>	<u>RC</u>	<u>7-31-90</u>
Site or # of	Sample	Received From	<u>Franklin St.</u>			

Data Release Authorization:

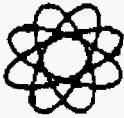


Richard G. Foster, Supervisor

Exhibit
#3

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:
Deltona Utilities
PO Box 5309
Deltona, FL 32726

Date Reported: Jun 14 1990
PO Number: N/A
PO Number Deltona
FOHRS Lab# : 83139
FDER Lab# : 883018
NCDEHNR Lab# : 296
SCDHEC Lab# : 94019

Sample Data

For: TDS Fe
Date Received:

Jun 7 1990

Lab Num: 9431-9431

REPORT OF ANALYSIS

	TDS	Iron
	mg/L	mg/L
Accuracy:	103	99.5
Precision:	3.38	0.70
Det. Limits:	2.5	0.01
Client ID		
Lab Number		

Water Sample		
9431	586.35	<u>0.16</u>

Data Release Authorization
Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.



Jefferson S. Flowers, Ph.D.
Technical Director

Exhibit # 4

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: Jun 14 1990

PO Number: N/A

PO Number Rock Hill

FDHRS Lab# : 83139

FDER Lab# : E83018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

Original TDS FE
Date Received:

Jun 11 1990

Lab Num: 9571-9572

REPORT OF ANALYSIS

	TDS mg/L	Iron mg/L
Accuracy:	103	99.9
Precision:	3.38	1.44
Det. Limits:	2.5	0.01
Client ID		
Lab Number		

5/8 ROCK HILL 9571	584.3	0.247
6/9 ROCK HILL 9572	585.7	0.254

→ Exhibit # 5 - Dated 6-8-9
Exhibit # 6 - Dated 6-9-9

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.

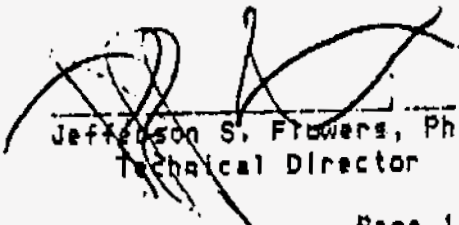

Jefferson S. Flowers, Ph.D.
Technical Director

Exhibit
#s 5 - 6

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Date Reported: April 1990

Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Proj Num Deltona
DIHS Lab# 1 83135
DER Lab# 1 E92010

for TDS COLOR CL TB
to Received:

Apr 3 1990

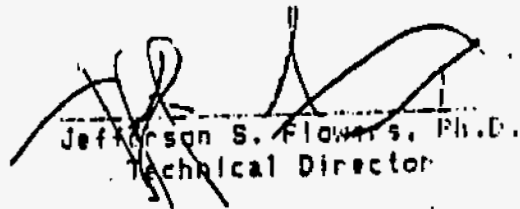
Lab Num: 13854-13855

REPORT OF ANALYSIS

	Color PCU	Chloride mg/L	TDS mg/L	Turbidity NTU
Accuracy:	-	104	97.3	105
Precision:	0	3.2	7.53	2.19
Stat. Limits:	5	0.015	2.5	0.05
Ident ID				
Lab Number				
WETNETTO CT, 13854	1			4.04
WICKHILL#2 13855	30	223.6	603	5.5

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

Page 1 of 1

Exhibit
2

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From: Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: April 1990
Proj Num Deltona
DHRS Lab# : 03139
DER Lab# : E83018

For: TDS COLOR CL TB
Date Received:

Apr 4 1990

Lab Num: 13856-13857

REPORT OF ANALYSIS

	Color PCU	Chloride mg/L	TDS mg/L	Turbidity NTU
Accuracy:	-	104	97.3	105
Precision:	0	3.2	7.53	2.19
Det. Limit:	5	0.015	2.5	0.05
Client ID				
Lab Number				
LORETTO CT. 13856	20	120.5	392	2.6
ROCKHILL#2 13857	20	204.6	574	1.6

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.

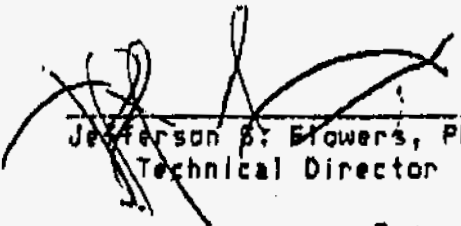

Jefferson S. Flowers, Ph.D.
Technical Director

Exhibit # 8

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5209
Deltona, FL 32738

Date Reported: April 17, 1990

Proj Num Deltona
DHRS Lab# 1 99199
DER Lab# 1 EP3019

For: TB CL COLOR
Date Received:

Apr 6 1990

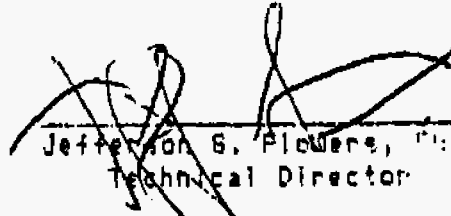
Lab Num: 13959-13960

REPORT OF ANALYSIS

	Color PCU	Chloride mg/L	Turbidity NTU
Accuracy:	-	192	103
Precision:	0.00	1.88	2.19
Det. Limits:	5	0.015	0.05
Client ID			
Lab Number			
ROCKHILL 13959	15	172	2.5
LORETTO CT. 13960	10	-	1.3

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL GA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

Page 1 of 1

Exhibit # 9

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util,
PO Box 5309
Deltona, FL 32738

Date Reported: May 21 1990

PO Number: N/A

PO Number Deltona

FDHRS Lab# : 83139

FDER Lab# : E83018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

For: TDS TB COLOR FE CL

Date Received:

May 17 1990

Lab Num: 8655-8655

REPORT OF ANALYSIS

Parameter	Unit	Method	%ACC	%PRC	ROCKHI	8655
		Detection				LL
		Limit				
Color	PCU	5	-	-	-	7.5
Chloride	mg/L	0.1	101	0.56	225.9	
TDS	mg/L	2.5	103	2.53	608.1	
Turbidity	NTU	0.05	93.8	3.61	0.78	
Iron	mg/L	0.01	101	0.88	0.25	

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

Page 1 of 1

Exhibit
10

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: May 23 1990

PO Number: DELTONA

PO Number

FDHRS Lab# : 83129

FDPR Lab# : E93018

NCDEHNR Lab# : 296

SCDHCC Lab# : 96019

For: TDS TB CL COLOR FE

Date Received: ~~EDT~~

May 18 1990

Lab Number: 8710-8710

REPORT OF ANALYSIS

Parameter	Unit	Method	%ACC	%PRD	ROCK HILL	8710
		Detection Limit				
Color	PCU	5	-	-	-	15
Chloride	mg/L	.015	106	1.29	231.03	
TDS	mg/L	2.5	95.0	2.5	123.5	
Turbidity	NTU	0.05	93.8	3.61	1.25	
Iron	mg/L	0.01	97.3	2.34	0.25	

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

Page 1 of 1

EXHIBIT
11

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: May 23 1990

PO Number: Rock Hill

PO Number: Deltona

FDHRS Lab# : 83129

FDER Lab# : E83018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

Parameters: TDS TB CL COLOR FE
Date Received: May 21 1990

Lab Num: 8725-8725

REPORT OF ANALYSIS

Parameter	Unit	Method	%ACC	%PRC	ROCK HILL	8725
		Detection Limit				
Color	PCU	5	-	-	7.5	
Chloride	mg/L	.015	106	1.29	237.1	
TDS	mg/L	2.5	95	2.50	585	
Turbidity	NTU	0.05	-	-	1.03	
Iron	mg/L	0.01	101	1.18	0.24	

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology.

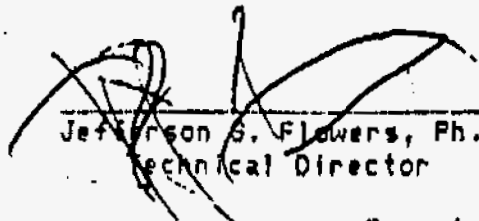

Jefferson S. Flowers, Ph.D.
Technical Director

Exhibit
12

Jefferson L. Flowers, Ph.D.

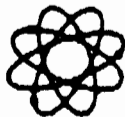
Ph. (407) 339-5984

Jefferson S. Flowers, Ph.D.

Fax (407) 260-6110

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: July 18 1990

PO Number: Deltona

PO Number

FDHRS Lab# : 03139

FOER Lab# : E83018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

Re: TDS

Date Received:

July 17 1990

Lab Numbers: 10971-10974

REPORT OF ANALYSIS

	TDS
	mg/L
Accuracy:	98
Precision:	2.52
Stat. Limits:	2.5
Ident ID	
Lab Number	
-LW6 10971	437.2
-LW8 10972	515
LL 27 10973	352.5
CKHILL RD. 10974	492.5

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology.

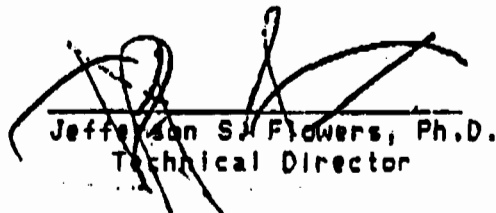
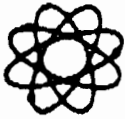

Jefferson S. Flowers, Ph.D.
Technical Director

Exhibit
13

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
PO Box 5309
Deltona, FL 32738

Date Reported: Jul 24 1990

PO Number: 111A

PO Number Deltona

FDHRS Lab# : 82136

FDER Lab# : E82018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

For: TDS

Date Received:

Jul 18 1990

Lab Num: 11018-11021

REPORT OF ANALYSIS

	TDS
	mg/L
Accuracy:	98.9
Precision:	0.49
Det. Limit:	2.5
Client ID	
Lab Number	

#6
11018 443.5

#8
11019 508.8

#27
11020 397.6

ROCKHILL ST.
11021 466.6

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

EXHIBIT
#14

FLOWERS CHEMICAL LABORATORIES, INC.

ANALYTICAL & CONSULTING CHEMISTS



Received From:

Deltona Util.
399 Fisher Dr.
Deltona, FL 32728

Date Reported: Jul 26 1990

PO Number: N/A

PO Number Deltona

FDHRS Lab# : 83139

FDER Lab# : E83018

NCDEHNR Lab# : 296

SCDHEC Lab# : 96019

For: TDS

Date Received:

Jul 19 1990

Lab Num: 11103-11103

REPORT OF ANALYSIS

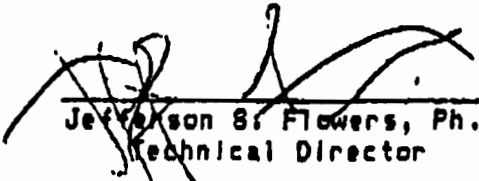
	TDS
	mg/L
Accuracy:	98.0
Precision:	1.44
Det. Limits:	2.5
Client ID	
Lab Number	

ROCKHILL RD.
11103

493.1

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis.
Methods of analysis in accordance with FCL QA and EPA approved methodology.


Jefferson S. Flowers, Ph.D.
Technical Director

Page 1 of 1

Exhibit
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