



BOARD OF COUNTY COMMISSIONERS

John E. Manning
District One

Brian Bigelow
District Two

Ray Judah
District Three

Tammy Hall
District Four

Frank Mann
District Five

Karen B. Hawes
County Manager

Michael D. Hunt
County Attorney

Diana M. Parker
County Hearing Examiner

September 20, 2013

Mr. Albert D. McLaurin, PE
Director of District Management
Florida Department of Environmental Protection
P.O. Box 2549
Fort Myers, FL 33902-2549

**Re: Lee County Resource Recovery Facility, PA90-30H
Second Semi-Annual 2013 Water Quality Monitoring Report
WACS ID No. 93715**

Dear Mr. McLaurin:

Enclosed please find the Second Semi-Annual 2013 Water Quality Monitoring (WQM) Report for the Lee County Resource Recovery Facility (RRF). Flowers Chemical Laboratories, Inc. (FCL) sampled the six (6) shallow (water table aquifer) monitoring wells (WTE-1S, WTE-2S, WTE-3SR, WTE-4S, WTE-5S and WTE-6S) on August 7, 2013 in accordance with the approved Ground Water Monitoring Plan (GWMP) dated August 2010 and approved by the Department on October 19, 2010.

The laboratory analytical results from this WQM event were compared to the Department's water quality standards or maximum contaminant levels (MCL) established in Chapter 62-550, F.A.C., and are summarized below.

Ground Water Monitoring Data Discussion

Ground water from all six (6) shallow monitoring wells exceeded the secondary drinking water standard for Iron, which is 0.3 milligrams per liter (mg/L) as established by Rule 62-550, F.A.C. The Total Dissolved Solids (TDS) concentration of ground water from well WTE-2S exceeded 500 mg/L, which is the secondary drinking water standard for Total Dissolved Solids (TDS) established by Rule 62-550, F.A.C. The concentrations of Iron and TDS in the wells that exceeded the MCL as noted above are provided in Table 1.

Table 1 – Summary of Results for Monitoring Wells which Exceeded the Water Quality Standards Established in Chapter 62-550, F.A.C.

Parameter (units)	WTE-1S	WTE-2S	WTE-3SR	WTE-4S	WTE-5S	WTE-6S
Iron (mg/L)	3.01	2.59	3.09	1.68	2.1	2.29
TDS (mg/L)	BS	574	BS	BS	BS	BS

BS-Below Standard

Electronic Data Files

In accordance with the Department's electronic reporting requirements, this WQM Report includes the field and laboratory ADaPT files which are provided as separate electronic files prepared in the Department specified format.

Ground Water Elevations

The ground water elevations at the six (6) shallow (water table aquifer) and six (6) deep (sandstone aquifer) monitoring wells are provided in Table 2 below. The elevations were determined in accordance with the Department's Standard Operating Procedures for Field Activities, DEP-SOP-001/01, and specifically per FS2200, Ground Water Sampling. The data used to determine the ground water elevations, i.e., top of casing elevations and depth to ground water measurements, is provided in the Attachments to this WQM Report.

Table 2 – Ground Water Elevations (ft., NGVD) Measured August 7, 2013

WELL ID	Elevation (ft., NGVD)	WELL ID	Elevation (ft., NGVD)
WTE-1S	21.75	WTE-1D	15.93
WTE-2S	21.03	WTE-2D	20.33
WTE-3S	20.39	WTE-3D	19.27
WTE-4S	18.55	WTE-4D	17.00
WTE-5S	20.73	WTE-5D	19.69
WTE-6S	17.81	WTE-6D	17.35

Field Documentation and Report Certification

The attachments to this WQM Report include DEP Form #62-701.900(31), F.A.C., Water Quality Monitoring Certification, DEP Form FD 9000-24, Ground Water Sampling Log for each well sampled, field data sheets and sample chain of custody.

Recommendations/Conclusions

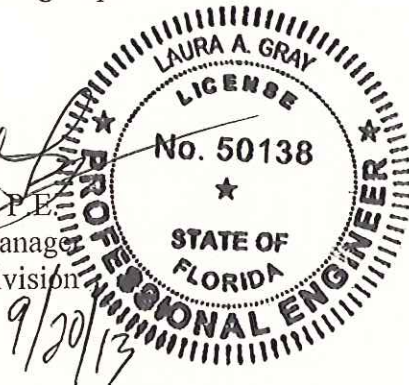
The monitoring results reported herein are consistent with prior monitoring results and background data for the RRF and are typical for ground water from this geographical region. Based on these monitoring results, no additional ground water monitoring is recommended. The RRF will continue to implement the approved ground water monitoring plan and will report the results to the Department as required.

Please call me at (239) 533-8930 if you have any questions pertaining to this Water Quality Monitoring Report.

Sincerely,


Laura A. Gray, P.E.
Engineering Manager
Solid Waste Division

Attachments



Cc: Bill Krumbholz, DEP
Jay Standiford, DEP
Lindsey J. Sampson, SWD
Keith Howard, SWD
Mike Duff, Covanta
Tyler Huffman, Covanta
File II E107

LIST OF ATTACHMENTS

Attachment A - Ground Water Monitoring Report Certification,
DEP Form # 62-701.900(31)

Attachment B - Ground Water Contour Maps (Shallow and Sandstone Wells) and
Supporting Data

Attachment C - Ground Water Monitoring Well Inspection Forms (Shallow and
Sandstone Wells)

Attachment D – Sampling Documentation (Shallow Wells)

Ground Water Sampling Logs, FD 9000-24
Field Data Sheets
Chain of Custody

*Lee County Resource Recovery Facility, PA90-30H
Construction & Demolition Debris Recycling Facility
WACS ID No. 93715
Second Semi-Annual 2013 Water Quality Monitoring Report*

Attachment A-Ground Water Monitoring Report Certification,
DEP Form # 62-701.900(31)



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(31), F.A.C.
Form Title: Water Quality Monitoring Certification
Effective Date: January 6, 2010
Incorporated in Rule 62-701.510(9), F.A.C.

WATER QUALITY MONITORING CERTIFICATION

PART I GENERAL INFORMATION

- (1) Facility Name Lee County Solid Waste Energy Recovery Facility
Address 10500 Buckingham Road
City Fort Myers Zip 33905 County Lee
Telephone Number (239) 533-8000
- (2) WACS Facility ID 93715
- (3) DEP Permit Number PA90-30H
- (4) Authorized Representative's Name Lindsey J. Sampson Title Director
Address 10500 Buckingham Road
City Fort Myers Zip 33907 County Lee
Telephone Number (239) 533-8000
Email address (if available) lsampson@leegov.com

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

9/19/13 (Date) Lindsey J. Sampson (Owner or Authorized Representative's Signature)

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Flowers Chemical Laboratories, Inc.
Analytical Lab NELAC / HRS Certification # E83018
Lab Name Flowers Chemical Laboratories, Inc
Address P.O. Box 150597, Altamonte Springs, FL 32715-0597
Phone Number (407) 339-5984
Email address (if available) _____

Northwest District
160 Government Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. 200 B
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-694-7555

Southwest District
13051 N. Telecom Pky.
Tempe Terrace, FL
813-632-7600

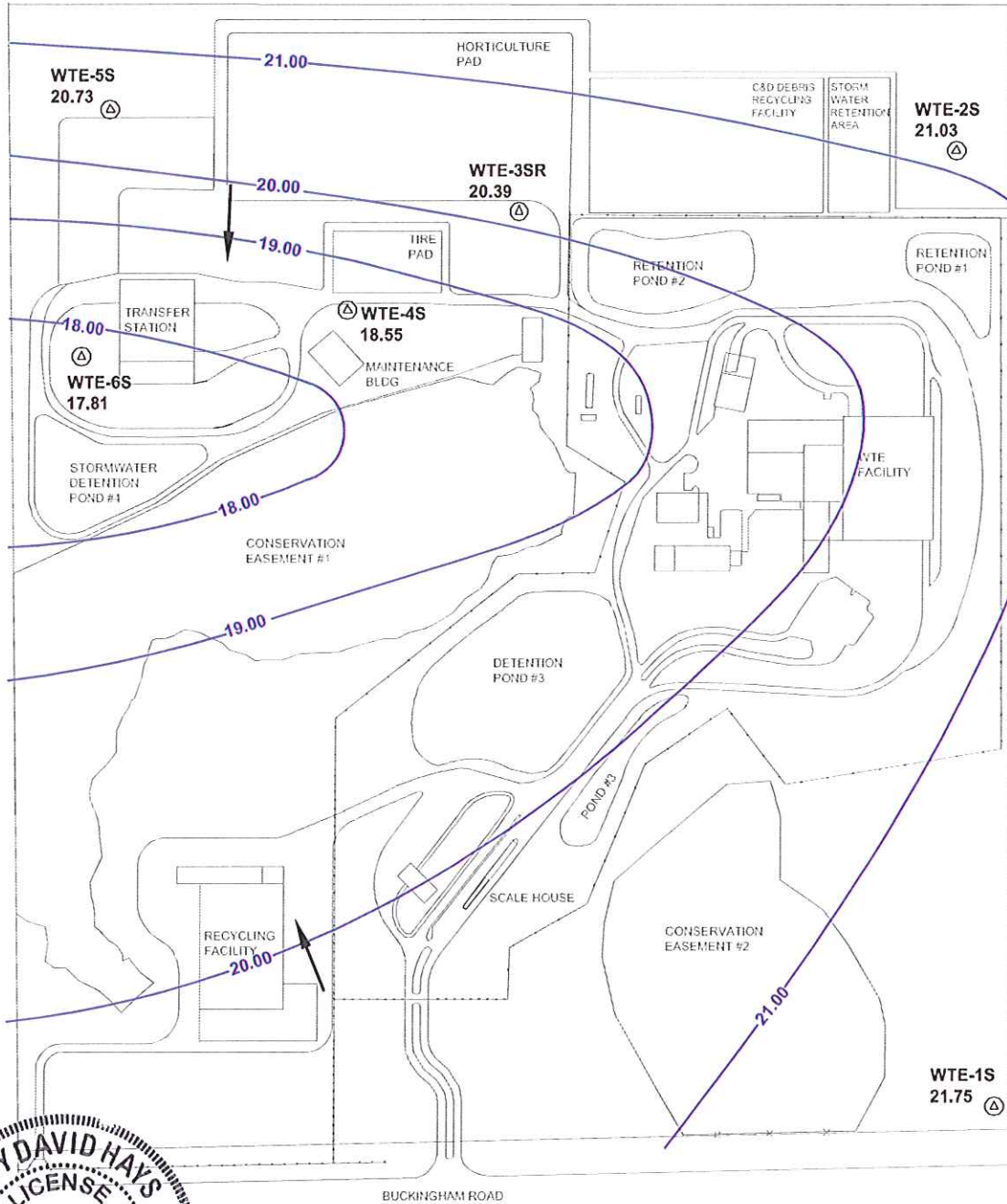
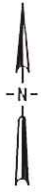
South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33902-2549
239-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

*Lee County Resource Recovery Facility, PA90-30H
Construction & Demolition Debris Recycling Facility
WACS ID No. 93715
Second Semi-Annual 2013 Water Quality Monitoring Report*

Attachment B –Ground Water Contour Maps (Shallow and Sandstone Wells) and Supporting Data

WELL	GW ELEVATION
WTE-1S	21.75 FT
WTE-2S	21.03 FT
WTE-3SR	20.39 FT
WTE-4S	18.55 FT
WTE-5S	20.73 FT
WTE-6S	17.81 FT



SHALLOW AQUIFER WELLS
 AUGUST 7, 2013
 SOLID WASTE ENERGY RECOVERY FACILITY
 LEE COUNTY SOLID WASTE DIVISION

WTE-1S
21.75

GROUNDWATER MONITORING WELL
WITH GROUNDWATER ELEVATION (ft)

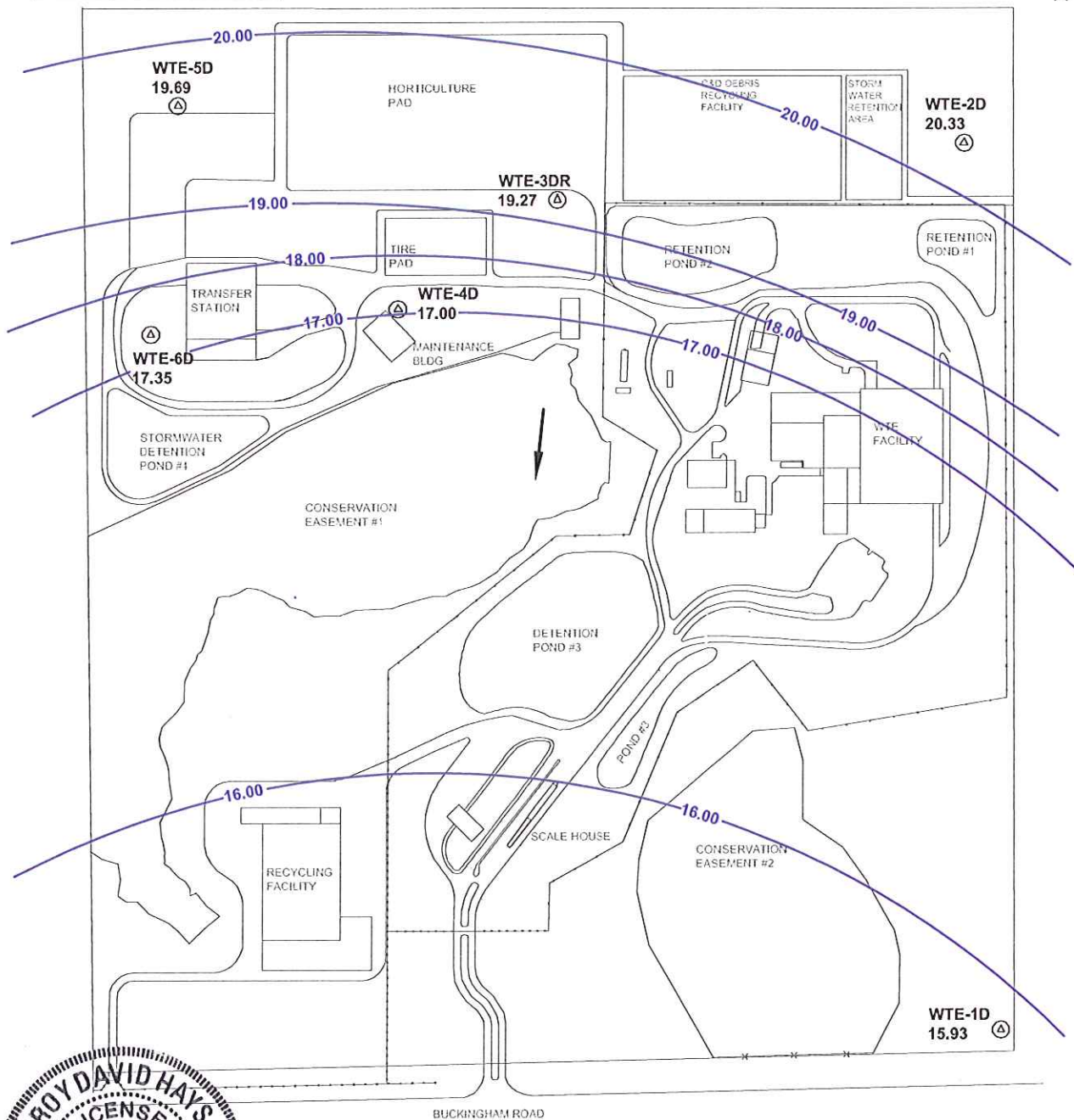
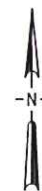
GROUNDWATER ELEVATION
CONTOUR

GROUNDWATER FLOW
DIRECTION

NOTE: NOT TO SCALE



WELL	GW ELEVATION
WTE-1D	15.93 FT
WTE-2D	20.33 FT
WTE-3DR	19.27 FT
WTE-4D	17.00 FT
WTE-5D	19.69 FT
WTE-6D	17.35 FT



DEEP AQUIFER WELLS
AUGUST 7, 2013
SOLID WASTE ENERGY RECOVERY FACILITY
LEE COUNTY SOLID WASTE DIVISION

WTE-1D
15.93

GROUNDWATER MONITORING WELL
WITH GROUNDWATER ELEVATION (ft)

GROUNDWATER ELEVATION
CONTOUR

GROUNDWATER FLOW
DIRECTION

NOTE: NOT TO SCALE

Lee County Resource Recovery Facility
Ground Water Elevations for August 7, 2013

Well ID	GW Elevation (ft, NGVD)	Well ID	GW Elevation (ft, NGVD)
WTE-1S	21.75	WTE-1D	15.93
WTE-2S	21.03	WTE-2D	20.33
WTE-3SR	20.39	WTE-3DR	19.27
WTE-4S	18.55	WTE-4D	17
WTE-5S	20.73	WTE-5D	19.69
WTE-6S	17.81	WTE-6D	17.35

All deep wells are 4 inch diameter and all shallow well are 2 inches diameter

Well No.	Elev. TOC, NGVD	Depth to Water, ft.	Water Elevation, Ft., NGVD	Total Depth (ft)
WTE-1S	21.91	0.16	21.75	14.6
WTE-1D	22.96	7.03	15.93	93.55
WTE-2S	24.18	3.15	21.03	12
WTE-2D	23.52	3.19	20.33	93
WTE-3SR	23.98	3.59	20.39	16.95
WTE-3DR	23.91	4.64	19.27	92
WTE-4S	22.48	3.93	18.55	13.4
WTE-4D	23.81	6.81	17	96
WTE-5S	23.81	3.08	20.73	17.41
WTE-5D	24.5	4.81	19.69	94
WTE-6S	23.66	5.85	17.81	19.98
WTE-6D	22.91	5.56	17.35	96

Note: WTE-3SR and WTE-3DR were installed on 9/15/10 and 10/11/10, respectively, to replace WTE-3S and WTE-3D which were relocated due to development of area for the C&D recycling facility. The Department approved the relocation of WTE-3S (to WTE-3SR) and WTE-3D (to WTE-3DR) on June 18, 2010 in letter which approved the C&D facility & its' GWM network. The C&D Facility's GWM network consists of WTE-2S (upgradient), WTE-3SR and WTE-4S (both downgradient)

*Lee County Resource Recovery Facility, PA90-30H
Construction & Demolition Debris Recycling Facility
WACS ID No. 93715
Second Semi-Annual 2013 Water Quality Monitoring Report*

**Attachment C – Ground Water Monitoring Well Inspection Forms
(Shallow and Sandstone Wells)**



FLOWERS CHEMICAL LABORATORIES INC.

P.O. BOX 150587, ALTAMONTE SPRINGS FL 32715-0587 PHONE (407) 339-5884 FAX (407) 260-6110 www.flowerslabs.com

FCL/LCSWD Monitoring Well Inspection Form

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 1S ☒ Shallow ☐ Deep WELL DIAMETER: 2.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 21.91' TOTAL WELL DEPTH: 14.60' STATIC DEPTH TO WATER 0.16'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 21.75'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.

Well surrounded by water.

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 1D ☐ Shallow ☒ Deep WELL DIAMETER: 4.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 22.96' TOTAL WELL DEPTH: 93.55' STATIC DEPTH TO WATER 7.03'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 15.93'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.

Well was surrounded by water.



FLOWERS CHEMICAL LABORATORIES INC.

P.O. BOX 150587, ALTAMONTE SPRINGS FL 32715-0587 PHONE (407) 339-5884 FAX (407) 260-6110 www.flowerslabs.com

FCL/LCSWD Monitoring Well Inspection Form

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 2S ☒ Shallow ☐ Deep WELL DIAMETER: 2.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 24.18' TOTAL WELL DEPTH: 12.00' STATIC DEPTH TO WATER 3.15'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 21.03'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.

Well Surrounded by water.

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 2D ☐ Shallow ☒ Deep WELL DIAMETER: 4.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 23.52' TOTAL WELL DEPTH: 93.00' STATIC DEPTH TO WATER 3.19'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 20.33'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.

Well surrounded by water.



FLOWERS CHEMICAL LABORATORIES INC.

P.O. BOX 150597, ALTAMONTE SPRINGS FL 32715-0597 PHONE (407) 339-5984 FAX (407) 260-6110 www.flowerslabs.com

FCL/LCSWD Monitoring Well Inspection Form

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 3S ☒ Shallow ☐ Deep WELL DIAMETER: 2.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 23.98' TOTAL WELL DEPTH: 16.15' STATIC DEPTH TO WATER 3.59'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 20.39'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 3D ☐ Shallow ☒ Deep WELL DIAMETER: 4.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

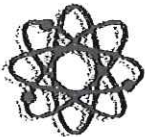
WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 23.91' TOTAL WELL DEPTH: 82.00' STATIC DEPTH TO WATER 4.64'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 19.27'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.



FLOWERS CHEMICAL LABORATORIES INC.

P.O. BOX 150527, ALTAMONTE SPRINGS, FL 32715-0527 PHONE (407) 339-5984 FAX (407) 260-6110 www.flowerslabs.com

FCL/LCSWD Monitoring Well Inspection Form

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 4S ☒ Shallow ☐ Deep WELL DIAMETER: 2.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 22.48' TOTAL WELL DEPTH: 13.40' STATIC DEPTH TO WATER 3.93'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 18.55'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 4D ☐ Shallow ☒ Deep WELL DIAMETER: 4.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

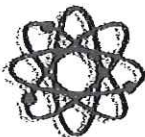
WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 23.81' TOTAL WELL DEPTH: 96.00' STATIC DEPTH TO WATER 6.81'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 17.00'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was inspected, everything was O.K.



FLOWERS CHEMICAL LABORATORIES INC.

P.O. BOX 150597, ALTAMONTE SPRINGS FL 32715-0597 PHONE (407) 339-5984 FAX (407) 260-6110 www.flowerslabs.com

FCL/LCSWD Monitoring Well Inspection Form

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 5S ☒ Shallow ☐ Deep WELL DIAMETER: 2.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 23.81' TOTAL WELL DEPTH: 17.45' STATIC DEPTH TO WATER 3.08'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 20.73'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):
Everything was inspected, everything was O.K.

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 5D ☐ Shallow ☒ Deep WELL DIAMETER: 4.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 24.50' TOTAL WELL DEPTH: 94.00' STATIC DEPTH TO WATER 4.81'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 19.69'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):
Everything was inspected, everything was O.K.



FLOWERS CHEMICAL LABORATORIES INC.

P.O. BOX 150587, ALTAMONTE SPRINGS FL 32715-0587 PHONE (407) 339-5884 FAX (407) 260-6110 www.flowerslabs.com

FCL/LCSWD Monitoring Well Inspection Form

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 6S ☒ Shallow ☐ Deep WELL DIAMETER: 2.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 23.66' TOTAL WELL DEPTH: 19.98' STATIC DEPTH TO WATER 5.85'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 17.81

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):
Everything was inspected, everything was O.K.

DATE: 8/7/13

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 6D ☐ Shallow ☒ Deep WELL DIAMETER: 4.00"

LOCATION: ☐ Landfill ☐ Percolation Pond ☐ O&M Building ☒ WTE Site

WELL TYPE: ☒ Background ☐ Detection ☐ Compliance

TOC Elevation: 22.91' TOTAL WELL DEPTH: 96.00' STATIC DEPTH TO WATER 5.56'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 17.35'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):
Everything was inspected, everything was O.K.

Attachment D – Sampling Documentation (Shallow Wells)

- Ground Water (GW) Sampling Logs, FD 9000-24
- Field Data Sheet
- Chain of Custody

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: WTE		SITE LOCATION: Lee County	
WELL NO: WTE - 1S		DATE: 8/7/13	

PURGING DATA

[illegible]

SAMPLING DATA

[illegible]

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: WTE		SITE LOCATION: Lee County	
WELL NO: WTE - 2S		SAMPLE ID: WTE - 2S	DATE: 8/7/13

PURGING DATA

[illegible]

SAMPLING DATA

[illegible]

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME WTE		SITE LOCATION Lee County	
WELL NO WTE – 3SR		SAMPLE ID WTE – 3SR	DATE 8/7/13

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Tommy Cross/ FCL				SAMPLER(S) SIGNATURE(S)			DUPPLICATE: Y <input checked="" type="checkbox"/>		SAMPLING INITIATED AT 1251		SAMPLING ENDED AT 1256	
PUMP OR TUBING DEPTH IN WELL (feet). 10.00				TUBING MATERIAL CODE: S + PE			FIELD-FILTERED Y <input checked="" type="checkbox"/> <small>Filtration Equipment Type</small>		FILTER SIZE: ____ µm			
FIELD DECONTAMINATION PUMP Y <input checked="" type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> (replaced)								
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)			
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS: No shoen observed.												
MATERIAL CODES AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump, B = Baller, BP = Bladder Pump, ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), O = Other (Specify)												

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) Turbidity: all readings < 20 NTU; optionally $+5$ NTU or $+10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME WTE		SITE LOCATION Lee County	
WELL NO. WTE - 4S		SAMPLE ID WTE - 4S	DATE 8/7/13

PURGING DATA

[illegible]

SAMPLING DATA

[illegible]

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally $+5$ NTU or $+10\%$ (whichever is greater)

Revision Date: February 12, 2009

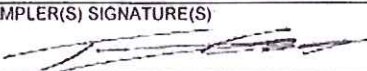
Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: WTE		SITE LOCATION Lee County	
WELL NO WTE - 5S		SAMPLE ID: WTE - 5S	DATE 8/7/13

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION Tommy Cross/ FCL				SAMPLER(S) SIGNATURE(S) 			SAMPLING INITIATED AT: 1150		SAMPLING ENDED AT: 1155	
PUMP OR TUBING DEPTH IN WELL (feet): 10.00				TUBING MATERIAL CODE S + PE			FIELD-FILTERED Y <input checked="" type="checkbox"/> Filtration Equipment Type:		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced)							DUPLICATE Y <input checked="" type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
REMARKS No sheen observed.										
MATERIAL CODES AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump. RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, $+0.2$ mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings < 20 NTU; optionally $+5$ NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: WTE		SITE LOCATION: Lee County	
WELL NO WTE - 6S		SAMPLE ID. WTE - 6S	DATE 8/7/13

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION Tommy Cross/ FCL				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT 1123		SAMPLING ENDED AT 1128	
PUMP OR TUBING DEPTH IN WELL (feet) 10.00				TUBING MATERIAL CODE S + PE			FIELD-FILTERED Y <input checked="" type="checkbox"/> Filtration Equipment Type:		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION PUMP Y <input checked="" type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> (replaced)			DUPLICATE Y <input checked="" type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
REMARKS										
No shoen observed.										
MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene; S = Silicone, T = Teflon, O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor, BP = Bladder Pump. ESP = Electric Submersible Pump, RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally $+5$ NTU or $+10\%$ (whichever is greater)

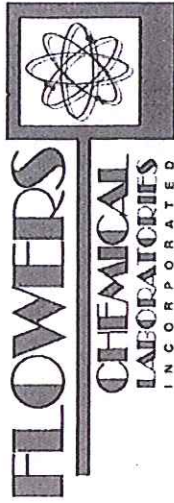
Revision Date: February 12, 2009

481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598



DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

Client	Lee Co.	Project Name	WTE Wells - 5/14	P.O. #
Address		Client Contact		FAX

<p><i>Philip Loucks</i></p> <p>FCL Project Manager</p> <p><i>Phil Loucks</i></p>	E-MAIL
--	--------

Phone										
Sampled By (PRINT):	Tommy Cross									
Requested Due Date	OR									
10 Day Standard										
Pick-Up Fee	\$									
Vehicle Surcharge	\$									
Sampling Fee	\$									
<p>Rush Charges May Apply</p> <p><i>Adriestee Co. - WTF new permit</i></p> <p><i>76</i></p>										

Sample Number	Preservatives	Analyses Requested	Comments
1	Date Sampled 8/17/13		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			

GW - ground water		DW - drinking water		WW - wastewater		Total # Contaminants
SW - surface water	SO - soil/solid	SL - sludge	HW - waste			
ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	
1	WTF-15	8/7/13	0951	GW	2122956w1	6
2	WTF-25		1023		2	
3	WTF-45		1048		3	
4	WTF-65		1123		4	
5	WTF-55		1150		5	
6	WTF-35R		1257		6	
7	Trip Blank		-	DT	7	2
8						
9						
10						

← 6^{ac}
pH^h

APR 26 2013
H₂SO₄
H₂O₂
HCl
HNO₃
Na₂S₂O₃

APR 26 2013
H₂SO₄
H₂O₂
HCl
HNO₃
Na₂S₂O₃

Relinquished By / Affiliation

Accepted By / Affiliation

Date

Time

Relinquished By / Affiliation

Accepted By / Affiliation

Date

Time

~~FINANCE CHARGES APPLIED TO PAST DUE INVOICES~~

• WHITE - Lab Copy - To Be Scanned

• YELLOW - Client Copy

Rev 04-08

212295

FIELD DATA SHEET



Sampler(s) Tommy Cross

Date 8/7/13

Page 1 of 7

Project Name Lee County: WTE Semi-Annual MW's

Sample Type	WW	SW	GW	DW	Reag. Wtr.	Sludge	Sediment	Soil	Other
-------------	----	----	----	----	------------	--------	----------	------	-------

Sample Site Identification WTE-1S, WTE-2S, WTE-4S, WTE-6S, WTE-5S, Wte-3SR

Sampling Method	Grab <input type="checkbox"/>	Composite <input type="checkbox"/>	Monitoring Well <input checked="" type="checkbox"/>	Batter <input type="checkbox"/>	Pump <input checked="" type="checkbox"/>
-----------------	-------------------------------	------------------------------------	---	---------------------------------	--

Sampling Equipment peristaltic pump, polyethylene and silicon tubing

Site & Weather Conditions Clear and hot

Field Instrument Beginning Calibration

Slope

pH Meter	YES	X	NO		Buffer	4.0	4.01	7.0	6.98	10.0	10.03
Conductivity Meter	YES	X	NO		Buffer			1413	1414		
Turbidity Meter	YES	X	NO		Buffer			10.00	10.12		
DO Meter	YES	X	NO		Buffer	100.2%	saturation				

Field Filtered ☐ YES ☒ NODuplicate ☐ YES ☒ NOField Decontamination ☒ YES ☐ NO

Parameter	Sample Containers	pH Check
<input checked="" type="checkbox"/> Nutrient	Plastic - H ₂ SO ₄	< 2
<input checked="" type="checkbox"/> Metals	Plastic - HNO ₃	< 2
<input type="checkbox"/> Sulfide	Plastic - NaOH / Zn Acetate	< 12
<input type="checkbox"/> Cyanide	Plastic - NaOH / Zn (No sulfide)/Ascorbic Acid	> 12
<input type="checkbox"/> Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res)	
<input type="checkbox"/> Oil & Grease	Glass - HCl	< 2
<input type="checkbox"/> TOC	Plastic - HCl	< 2
<input checked="" type="checkbox"/> VOA	Glass - HCl	< 2
<input type="checkbox"/> SVOC	Glass - HCl (DW NO Chlorine Res)	
<input type="checkbox"/> Phenols	Glass - H ₂ SO ₄	< 2
<input checked="" type="checkbox"/> Other	Unpreserved	

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

Field Instrument Ending Calibration

pH Meter	YES	X	NO		Buffer	4.0		7.0	7.04	10.0	
Conductivity Meter	YES	X	NO		Buffer			1413	1389		
Turbidity Meter	YES	X	NO		Buffer			10.00	10.00		
DO Meter	YES	X	NO		Buffer	100.1%	saturation				

General Site Information / Comments