BENCHMARK
EnviroAnalytical Inc.

FDOH Certification #E84167

Charlotte County Utilities
25550 Harbor View Rd., Unit 1
Port Charlotte, FL 33980

Sandra Lavoie

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

INORGANIC ANALYSIS
62-550.310 (1)

REPORT NUMBER: 16010862 - 001
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	TOTAL KJELDAHL NITROGEN	MG/L	1.05		351.2	0.05	01/29/2016	11:01	E84167
	TOTAL NITROGEN	MG/L	12.1		353+351	0.05	02/02/2016	14:57	E84167
1040	NITRATE NITROGEN	MG/L	11.0		353.2	0.004	01/26/2016	15:50	E84167
1041	NITRITE NITROGEN	MG/L	0.003	U	SM4500NO2B	0.003	01/26/2016	15:50	E84167
1038	NITRATE+NITRITE AS N	MG/L	11.0		353.2	0.004	02/02/2016	14:57	E84167
1005	ARSENIC	UG/L	1.11	I	SM3113B	0.689	01/28/2016	15:10	E84167
1010	BARIUM	UG/L	12.5		200.7	2	01/28/2016	17:10	E84167
1015	CADMIUM	UG/L	0.9	U	200.7	0.9	01/28/2016	17:10	E84167
1020	CHROMIUM	UG/L	2.50	I	200.7	2	01/28/2016	17:10	E84167
1025	FLUORIDE	MG/L	0.105	I	300.0	0.030	01/29/2016	12:41	E84167
1030	LEAD	UG/L	0.670	U	SM3113B	0.670	01/29/2016	17:49	E84167
1035	MERCURY	UG/L	0.198	U	245.1	0.198	01/28/2016	11:30	E84167
1036	NICKEL	UG/L	1.18	U	200.7	1.18	01/28/2016	17:10	E84167
1045	SELENIUM	UG/L	1.57	U	SM3113B	1.57	02/01/2016	11:31	E84167
1052	SODIUM	MG/L	125		200.7	0.034	01/28/2016	17:10	E84167
1074	ANTIMONY	UG/L	2.26	U	SM3113B	2.26	02/02/2016	18:18	E84167
1075	BERYLLIUM	UG/L	0.078	U	200.7	0.078	01/28/2016	17:10	E84167
1085	THALLIUM	UG/L	0.981	U	200.9	0.981	02/03/2016	12:18	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010862 - 001
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2005	ENDRIN	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2010	LINDANE (G-BHC)	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2015	METHOXYCHLOR	UG/L	0.0500	U	505	0.0500	01/29/2016		E83018
2020	TOXAPHENE	UG/L	0.500	U	505	0.500	01/29/2016		E83018
2031	DALAPON	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2032	DIQUAT	UG/L	0.400	U	549.2	0.400	02/02/2016		E83018
2033	ENDOTHALL	UG/L	9.00	U	548.1	9.00	02/06/2016		E83018
2034	GLYPHOSATE	UG/L	6.00	U	547	6.00	02/06/2016		E83018
2035	DI(2-ETHYLHEXYL)ADIPATE	UG/L	0.600	U	525.2	0.600	02/06/2016		E83018
2036	OXAMYL	UG/L	2.00	U	531.1	2.00	02/05/2016		E83018
2037	SIMAZINE	UG/L	0.0700	U	507	0.0700	02/08/2016		E83018
2039	DI(2-ETHYLHEXYL)PHTHALATE	UG/L	30.5	L	525.2	0.600	02/06/2016		E83018
2040	PICLORAM	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2041	DINOSEB	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2042	HEXACHLOROCYCLOPENTADIENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2046	CARBOFURAN	UG/L	0.900	U	531.1	0.900	02/05/2016		E83018
2050	ATRAZINE	UG/L	0.100	U	507	0.100	02/08/2016		E83018
2051	ALACHLOR (LASSO)	UG/L	.200	U	507	.200	02/08/2016		E83018
2063	2,3,7,8-TCDD	PG/L	1.38	U	1613B	1.38	02/03/2016		E87688
2065	HEPTACHLOR	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2067	HEPTACHLOR EPOXIDE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2105	2,4-D	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2110	2,4,5-TP (SILVEX)	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2274	HEXACHLOROBENZENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2306	BENZO(A)PYRENE	UG/L	0.200	U	525.2	0.200	02/06/2016		E83018
2326	PENTACHLOROPHENOL	UG/L	0.0400	U	515.4	0.0400	02/11/2016		E83018
2383	PCB	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2946	ETHYLENE DIBROMIDE	UG/L	0.01	U	504.1	0.01	01/29/2016	14:00	E84167
2959	CHLORDANE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018

RADIONUCLIDES

62-550.310 (6)

REPORT NUMBER: 16010862 - 001
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	RADIUM-226/228 COMBINED	PCI/L	1.1+/-0.2		903.1/Ra-05	0.9	02/11/2016	12:28	E83033
4000	GROSS ALPHA	PCI/L	2.1+/-0.7		900.0	1.0	02/05/2016	12:45	E83033
4020	RADIUM-226	PCI/L	1.1+/-0.2		903.1	0.2	02/11/2016	11:01	E83033
4030	RADIUM-228	PCI/L	0.9	U	Ra-05	0.9	02/11/2016	12:28	E83033

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010862 - 001
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	COLOR PH	UNITS	7.24		SM4500H+B		01/26/2016	16:54	E84167
1002	ALUMINUM	UG/L	48.0	I	200.7	23	01/28/2016	17:10	E84167
1017	CHLORIDE	MG/L	200		300.0	0.353	02/01/2016	14:08	E84167
1022	COPPER	UG/L	0.346	U	SM3113B	0.346	02/09/2016	12:14	E84167
1025	FLUORIDE.	MG/L	0.105	I	300.0	0.030	01/29/2016	12:41	E84167
1028	IRON	UG/L	51.5	I	200.7	29	01/28/2016	17:10	E84167
1032	MANGANESE	UG/L	9.80		200.7	0.98	01/28/2016	17:10	E84167
1050	SILVER	UG/L	0.600	I	200.7	0.5	01/28/2016	17:10	E84167
1055	SULFATE	MG/L	34.1		300.0	0.339	02/01/2016	14:08	E84167
1095	ZINC	UG/L	69.2		200.7	1.4	01/28/2016	17:10	E84167
1905	COLOR, APPARENT	PCU	10		SM2120B	2.5	01/26/2016	16:54	E84167
1930	TOTAL DISSOLVED SOLIDS	MG/L	592		SM2540C	7.26	01/28/2016	09:58	E84167
2905	SURFACTANTS	MG/L	0.198		SM5540C	0.03	01/27/2016	10:22	E84167

INORGANIC ANALYSIS

62-550.310 (1)

REPORT NUMBER: 16010862 - 002
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1024	CYANIDE	MG/L	0.005	U	335.4	0.005	01/27/2016	11:38	E84167

DISINFECTION BYPRODUCTS

62-550.310 (3)

REPORT NUMBER: 16010862 - 002
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2941	CHLOROFORM	UG/L	33.7		524.2	0.5	01/29/2016	17:00	E84167
2942	BROMOFORM	UG/L	2.89		524.2	0.5	01/29/2016	17:00	E84167
2943	BROMODICHLOROMETHANE	UG/L	42.1		524.2	0.5	01/29/2016	17:00	E84167
2944	DIBROMOCHLOROMETHANE	UG/L	17.8		524.2	0.5	01/29/2016	17:00	E84167
2950	TRIHALOMETHANES, TOTAL	UG/L	96.5		524.2	0.5	01/29/2016	17:00	E84167

VOLATILE ORGANICS

62-550.310 (4) (a)

REPORT NUMBER: 16010862 - 002
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2378	1,2,4-TRICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2380	CIS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2955	XYLENES	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2964	METHYLENE CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2968	O-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2969	PARA-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2976	VINYL CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2977	1,1-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2979	TRANS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2980	1,2-DICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2981	1,1,1-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2982	CARBON TETRACHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2983	1,2-DICHLOROPROPANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2984	TRICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2985	1,1,2-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2987	TETRACHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2989	MONOCHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2990	BENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2991	TOLUENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2992	ETHYLBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2996	STYRENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010862 - 002
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2931	1,2-DIBROMO-3-CHLOROPROPANE	UG/L	0.014	U	504.1	0.014	01/29/2016	14:00	E84167

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010862 - 002
SYSTEM NAME: BS-3 Pri/Sec & Ann Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1925	PH	UNITS	6.95	Q	SM4500H+B		01/26/2016	15:59	E84167

Dale D. Dixon / Laboratory Director — 02/22/2016 Date

Tülay Tanrisever / QC Officer

Deborah A. Murphy / Project Manager

DATA QUALIFIERS THAT MAY APPLY:

I = Reported value is between the laboratory MDL and the PQL. PQL = 4 x MDL.
J = Estimated value.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
Q = Sample held beyond accepted hold time.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate, and Spike values are within control limits. Reported data are usable.

NOTES:

ND = Not Detected at or above adjusted reporting limit.
MBAS calculated as LAS; molecular weight = 340
X = Value exceeds MCL.

L = Off-scale high; reported concentration exceeds the highest standard.
There were several exceedance is the Spikes for Bis(2-ethlyhexyl)phthalate and Simazine, however the LCS validates both of the analysis.

For questions and comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EnviroAnalytical, Inc.
1711 Twelfth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.Benchmarkea.com

Client: **Charlotte County Utilities**
25550 Harbor View Rd. Unit 1
Port Charlotte, FL 33980
Phone: 941-764-4593 Sandra Lavoie
Fax: 941-627-4603
Sandra.Lavoie@charlottefl.com

Chain of Custody Form: Burnt Store Primary & Secondary Analysis Annual Reclaimed (Jan.)
Method of Discharge: Sample Matrix[2]: WW

Laboratory Submission #: 1601866

Sample ID	Sample Type[1]	Sb, As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Na, Tl Al, Cu, Fe, Mn, Ag, Zn	Dioxin	Gross Alpha Rad 226 Rad 228 Radium 226/228 Combined	NO_3-NO_2 (353.2) NO_3 (Calc.) TKN TN	SOC's (Pesticides and PCB's) 507 548.1 547	Semi-volatiles 525.2	505	Diquat 549.2	531.1	Herbicides 515.4	EDB 504.1	MBAS (Foaming Agents)	Cl SO_4 TDS Color/pH Fluoride NO_2 (SM4500)	VOCs (21) THM's ***	pH ****	DBCP 504.1	CN	Lab ID #
		1:4 HNO_3 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	1:4 H_2SO_4 pH<2 ☐	$Na_2S_2O_3$	Na_2SO_3 1:1 HCl**	$Na_2S_2O_3$	$Na_2S_2O_3$	$Na_2S_2O_3$ MCAA	$Na_2S_2O_3$	NaS_2O_3	Plain	Plain	NaThio 1:1 HCl*	Plain	NaS_2O_3	NaOH pH>9 ☐	
		1 x 1 Quart Plastic	2 x 950mL Amber Glass	1 x 2 Quart Plastic	1 x ½ Pint Plastic	2 x 1 Lt. Amber Glass	1 x 1 Liter Glass	2 x 40mL Glass Vials	1 x 250mL Opaque Plastic	1 x 40mL Glass Vial	1 x 150mL Glass	2 x 40mL Glass Vials	1 x 1 Quart Plastic	1 x 1 Quart Plastic	3 x 40mL Glass Vials	1 x ½ Pint Plastic	2 x 40mL Glass Vials	1 x ½ Pint Plastic	
BS-3	24hr Comp.	Start Date & Time: 01/25/16 0730 End Date & Time: 01/26/16 0740																	1
	G														Date & Time: 1-26-16 0740				2

***Add 3 drops of HCl to each bottle.**
**** Add entire vial of HCl to sample bottle.**
***** Fill all 3 vials completely; there can be NO AIR BUBBLES.**
******pH received after 15 minute hold time, ok to run analysis.**

1 "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2 "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface warer (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3 "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4 Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).
Under "Preservative," list any preservatives that were added to the sample container.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form

Laboratory Sample Acceptability
pH<2 ☑ BEA Temperature:
BEAS Temperature: 1.8°C

1	Collector: Kevin Wagner Paul Suss	Date: 1-26-16	Time: 0830	Received By:	Date: 830	Time: 1/26/16
2	Received By:	Date: 1/26/16	Time: 917	Received By:	Date: 1/26/16	Time: 0917
3	Received By:	Date: 1/26/16	Time: 1105	Received By: Amy Haubein	Date: 1/26/16	Time: 1105
4	Received By: Amy Haubein	Date: 1/26/16	Time: 1415	Received By:	Date: 1/26/16	Time: 1415

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax

Office QC Check: _____
Bottle Check: _____

Date:	01/26/16		
# of Samples:	1	Total # of Bottles:	1
Method of Shipment:	Courier		
Subcontract Laboratory:	Florida Radiochemistry 5456 Hoffner Ave. #201 Orlando, Fl. 32812 Phone: 407-382-7733 Fax: 407-382-7744		
Page	1	of	1

10 BUSINESS DAY T.A.T. PLEASE

Laboratory Submission #	Collection		Sample Matrix*	Collection Method**	Preservative	Container			Parameters	Field Conductivity µs/cm
	Date	Time				Qty	Capacity	Type***		
16010862-1	01/26/16	0740	WW	24 Hr. Comp.	1:4 HNO_3	1	2 Qt	P	Gross Alpha, Radium 226 & 228	

* Sample Matrix abbreviations: Groundwater (GW), Surface Water (SW), Saline Surface Water (SSW), Fresh Surface Water(FSW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff).
** Sample Method abbreviations: Grab (G), Composite (C), 24 Hour Composite (24HR Comp.)
*** Container Type abbreviations: Plastic (P), Glass (G).

Relinquished By: (Benchmark)	Sign Name:		Date:		Received By:		Date: 2-3-16
	Print Name:	Annah Jensen	Time:			MIKE NAUMANN	Time: 11:50
Relinquished By:	Sign Name:		Date:		Received By:		Date:
	Print Name:		Time:				Time:

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto Fl 34221
941-723-9986

Flowers Chemical Laboratories, Inc.
481 Newburyport Ave.
Altamonte Springs Fl 32701
407-339-5984

Sampled By: Client

Matrix's:

GW- Ground water DW- Drinking water
SW- Surface water S- Soil/solid
SL- Sludge WW- Waste water

Project Name (Number): 16010862 (BS-3)	P.O.#
Client Contact: Annah Jensen / Dale Dixon	Email Report: Bettina Beilfuss / Deborah Murphy
FCL Project Manager: June Flowers / Shawn Parks	
Requested Due Date: 10 Day Standard or	Rush Charges May Apply
Pick-up Fee: $	Vehicle Surcharge $:

Item No	Sample ID	Date	Time	Matrix	(Lab Use Only) Lab. NO.	Preservatives						Analysis Request						Comments	Total # of Containers
						Methanol	1:4 H_2SO_4	1:4 HNO_3	1:1 HCl	$Na_2S_2O_3$	Na_2SO_3 + HCl	507/548.1 /547	525.2	505	Diquat 549	531.1	515.4		
1	16010862-1	01/26/16	0740	WW						X		X						24 Hr. Composite	2
2				WW							X		X						1
3				WW	288822uw1					X				X					2
4				WW						X					X				1
5				WW		X				X						X			1
6				WW						X							X		1
7																			
8																			
9																			
10																			

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Annah Jensen/BEA	01/27/16	0830								1/27/16	1438

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.Benchmarkea.com
Office QC Check: _____
Bottle Check: _____

Date:	01/26/16		
Station ID:	BS-3		
# of Samples:	1	Total # of Bottles:	2
Method of Shipment:	UPS – 2 Day Air		
Subcontract Laboratory:	Summit Environmental 3310 Win Street Cuyahoga Falls, Ohio. 44223 (330) 253-8211		
Page	1	of	1

Laboratory Submission #	Collection		Sample Matrix[1]	Collection Method[2]	Preservative	Container			Parameters	Comments
	Date	Time				Qty	Capacity	Type[3]		
16010862-1	01/26/16	0740	WW	24 Hr. Composite	Plain	2	950mL	G	Dioxin	

160116 20-001
CSL

1. "Sample Matrix" abbreviations: Groundwater (GW), Surface Water (SW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff)
2. "Sample Method" abbreviations: Grab (G), Composite (C)
3. "Container Type" abbreviations: Plastic (P), Glass (G)

Relinquished By: (Benchmark)	Sign Name:		Date: 01/26/16	Received By:	UPS	Date:	
	Print Name: Annah Jensen		Time: 1600			Time:	
Relinquished By:	Sign Name:		Date:	Received By:		Date: 1/27/16	
	Print Name:		Time:			Time: 102	

BENCHMARK
EnviroAnalytical Inc.

FDOH Certification #E84167

Charlotte County Utilities
25550 Harbor View Rd., Unit 1
Port Charlotte, FL 33980

Sandra Lavoie

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

INORGANIC ANALYSIS
62-550.310 (1)

REPORT NUMBER: 16010863 - 001
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1040	NITRATE NITROGEN	MG/L	3.41		353.2	0.004	01/26/2016	15:51	E84167
1041	NITRITE NITROGEN	MG/L	0.003	U	SM4500NO2B	0.003	01/26/2016	15:51	E84167
1038	NITRATE+NITRITE AS N	MG/L	3.41		353.2	0.004	02/02/2016	14:37	E84167
1005	ARSENIC	UG/L	0.916	I	SM3113B	0.689	01/28/2016	15:16	E84167
1010	BARIUM	UG/L	8.20		200.7	2	01/28/2016	17:15	E84167
1015	CADMIUM	UG/L	0.9	U	200.7	0.9	01/28/2016	17:15	E84167
1020	CHROMIUM	UG/L	2	U	200.7	2	01/28/2016	17:15	E84167
1025	FLUORIDE	MG/L	0.182		300.0	0.030	01/29/2016	13:20	E84167
1030	LEAD	UG/L	0.670	U	SM3113B	0.670	01/29/2016	17:54	E84167
1035	MERCURY	UG/L	0.198	U	245.1	0.198	01/28/2016	11:30	E84167
1036	NICKEL	UG/L	1.60	I	200.7	1.18	01/28/2016	17:15	E84167
1045	SELENIUM	UG/L	1.57	U	SM3113B	1.57	02/01/2016	11:37	E84167
1052	SODIUM	MG/L	106		200.7	0.034	01/28/2016	17:15	E84167
1074	ANTIMONY	UG/L	2.26	U	SM3113B	2.26	02/02/2016	18:28	E84167
1075	BERYLLIUM	UG/L	0.078	U	200.7	0.078	01/28/2016	17:15	E84167
1085	THALLIUM	UG/L	0.981	U	200.9	0.981	02/03/2016	13:04	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010863 - 001
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2005	ENDRIN	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2010	LINDANE (G-BHC)	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2015	METHOXYCHLOR	UG/L	0.0500	U	505	0.0500	01/29/2016		E83018
2020	TOXAPHENE	UG/L	0.500	U	505	0.500	01/29/2016		E83018
2031	DALAPON	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2032	DIQUAT	UG/L	0.400	U	549.2	0.400	02/02/2016		E83018
2033	ENDOTHALL	UG/L	9.00	U	548.1	9.00	02/06/2016		E83018
2034	GLYPHOSATE	UG/L	6.00	U	547	6.00	02/02/2016		E83018
2035	DI(2-ETHYLHEXYL)ADIPATE	UG/L	0.600	U	525.2	0.600	02/06/2016		E83018
2036	OXAMYL	UG/L	2.00	U	531.1	2.00	02/05/2016		E83018
2037	SIMAZINE	UG/L	0.0700	U	507	0.0700	02/08/2016		E83018
2039	DI(2-ETHYLHEXYL)PHTHALATE	UG/L	36.7	L	525.2	0.600	02/06/2016		E83018
2040	PICLORAM	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2041	DINOSEB	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2042	HEXACHLOROCYCLOPENTADIENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2046	CARBOFURAN	UG/L	0.900	U	531.1	0.900	02/05/2016		E83018
2050	ATRAZINE	UG/L	0.100	U	507	0.100	02/08/2016		E83018
2051	ALACHLOR (LASSO)	UG/L	0.200	U	507	0.200	02/08/2016		E83018
2063	2,3,7,8-TCDD	PG/L	1.38	U	1613B	1.38	02/03/2016		E87688
2065	HEPTACHLOR	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2067	HEPTACHLOR EPOXIDE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2105	2,4-D	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2110	2,4,5-TP (SILVEX)	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2274	HEXACHLOROBENZENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2306	BENZO(A)PYRENE	UG/L	0.0200	U	525.2	0.0200	02/06/2016		E83018
2326	PENTACHLOROPHENOL	UG/L	0.0400	U	515.4	0.0400	02/11/2016		E83018
2383	PCB	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2959	CHLORDANE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018

RADIONUCLIDES

62-550.310 (6)

REPORT NUMBER: 16010863 - 001
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	RADIUM-226/228 COMBINED	PCI/L	0.9	U	903.1/Ra-05	0.9	02/12/2016	10:54	E83033
4000	GROSS ALPHA	PCI/L	1.5	U	900.0	1.5	02/05/2016	14:56	E83033
4020	RADIUM-226	PCI/L	0.2+/-0.1		903.1	0.1	02/12/2016	10:54	E83033
4030	RADIUM-228	PCI/L	0.9	U	Ra-05	0.9	02/11/2016	13:29	E83033

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010863 - 001
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1002	ALUMINUM	UG/L	23	U	200.7	23	01/28/2016	17:15	E84167
1017	CHLORIDE	MG/L	129		300.0	0.353	02/01/2016	14:23	E84167
1022	COPPER	UG/L	0.346	U	SM3113B	0.346	02/09/2016	12:21	E84167
1025	FLUORIDE	MG/L	0.182		300.0	0.030	01/29/2016	13:20	E84167
1028	IRON	UG/L	44.4	I	200.7	29	01/28/2016	17:15	E84167
1032	MANGANESE	UG/L	0.98	U	200.7	0.98	01/28/2016	17:15	E84167
1050	SILVER	UG/L	0.700	I	200.7	0.5	01/28/2016	17:15	E84167
1055	SULFATE	MG/L	112		300.0	0.339	02/01/2016	14:23	E84167
1095	ZINC	UG/L	35.2		200.7	1.4	01/28/2016	17:15	E84167
1930	TOTAL DISSOLVED SOLIDS	MG/L	560		SM2540C	7.26	01/28/2016	09:58	E84167
2905	SURFACTANTS	MG/L	2.37		SM5540C	0.03	01/27/2016	10:22	E84167

INORGANIC ANALYSIS

62-550.310 (1)

REPORT NUMBER: 16010863 - 002
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1024	CYANIDE	MG/L	0.005	U	335.4	0.005	01/27/2016	12:22	E84167

DISINFECTION BYPRODUCTS

62-550.310 (3)

REPORT NUMBER: 16010863 - 002
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2941	CHLOROFORM	UG/L	27.0		624	0.5	01/29/2016	17:00	E84167
2942	BROMOFORM	UG/L	1.58	I	624	0.5	01/29/2016	17:00	E84167
2943	DICHLOROBROMOMETHANE	UG/L	15.2		624	0.5	01/29/2016	17:00	E84167
2944	DIBROMOCHLOROMETHANE	UG/L	3.67		624	0.5	01/29/2016	17:00	E84167
2950	TRIHALOMETHANES, TOTAL	UG/L	47.5		624	0.5	01/29/2016	17:00	E84167

VOLATILE ORGANICS

62-550.310 (4) (a)

REPORT NUMBER: 16010863 - 002
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2378	1,2,4-TRICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2380	CIS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2955	XYLENES	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2964	METHYLENE CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2968	O-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2969	PARA-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2976	VINYL CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2977	1,1-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2979	TRANS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2980	1,2-DICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2981	1,1,1-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2982	CARBON TETRACHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2983	1,2-DICHLOROPROPANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2984	TRICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2985	1,1,2-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2987	TETRACHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2989	MONOCHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2990	BENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2991	TOLUENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2992	ETHYLBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2996	STYRENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010863 - 002
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2931	1,2-DIBROMO-3-CHLOROPROPANE	UG/L	0.014	U	504.1	0.014	01/29/2016	14:00	E84167
2946	ETHYLENE DIBROMIDE	UG/L	0.01	U	504.1	0.01	01/29/2016	14:00	E84167

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010863 - 002
SYSTEM NAME: EP-32 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1925	PH	UNITS	7.34	Q	SM4500H+B		01/26/2016	15:59	E84167

02/22/2016
Dale D. Dixon / Laboratory Director — Date
Tülay Tanrisever / QC Officer
Deborah A. Murphy / Project Manager

DATA QUALIFIERS THAT MAY APPLY:

I = Reported value is between the laboratory MDL and the PQL. PQL = 4 x MDL.
J = Estimated value.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
Q = Sample hold beyond accepted hold time.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate, and Spike values are within control limits. Reported data are usable.

NOTES:

ND = Not Detected at or above adjusted reporting limit.
MBAS calculated as LAS; molecular weight = 340
X = Value exceeds MCL.

L = Off-scale high; reported concentration exceeds the highest standard.
There were several exceedance is the Spikes for Bis(2-ethlyhexyl)phthalate and Simazine, however the LCS validates both of the analysis.

For questions and comments regarding these results, please contact us at (941) 723-9986.
Results relate only to the samples.

Benchmark EnviroAnalytical, Inc.
1711 Twelfth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
www.benchmarkea.com

Client: Charlotte County Utilities
East Port Water Reclamation Facility
3100 Loveland Blvd.
Port Charlotte FL
Tel: 941-764-4595
Fax: 941-627-4603

Chain of Custody Form: East Port Primary & Secondary Analysis Annual Reclaimed Water (Jan.)
Sample Matrix[2]: WW

Laboratory Submission #: 1601063

Sample ID	Sample Type[1]	Sb, As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Na, Tl Al, Cu, Fe, Mn, Ag, Zn	Cl SO_4 TDS NO_2 (SM4500) Fluoride	Gross Alpha Rad 226 & 228 Radium 226/228 Combined	NO_3-NO_2, NO_3	MBAS	Dioxin	SOC's (Pesticides and PCB's)						EDB/DBCP 504	THM's VOCs 624 (21) ***	CN	pH ****	Lab ID#
								507 548.1 547	Semi-volatiles 525.2	505	Diquat 549.2	531.1	Herbicides 515.4					
		1:4 HNO_3 pH<2 ☑	Plain	1:4 HNO_3 pH<2 ☑	1:4 H_2SO_4 pH<2 ☑	Plain	Plain	$Na_2S_2O_3$	Na_2SO_3 1:1 HCl**	$Na_2S_2O_3$	$Na_2S_2O_3$	$Na_2S_2O_3$ MCAA	$Na_2S_2O_3$	NaThio	NaThio 1:1 HCl*	NaOH	Plain	
		1 x 1 Quart Plastic	1 x 1 Quart Plastic	1 x 2 Quart Plastic	1 x ½ pint Plastic	1 x 1 Quart Plastic	2 x 950mL Glass	2 x 1 Lt. Amber Glass	1 x 1 Liter Glass	2 x 40mL Glass Vials	1 x 250mL Opaque Plastic	1 x 40mL Glass Vial	1 x 150mL Glass	2 x 40mL Glass Vials	3 x 40mL Glass Vials	1 x 250mL Plastic	1 x ½ Pint Plastic	
EP-32	Comp.	Start Date & Time: 1-25-16 0645																1
		End Date & Time: 1-26-16 0615																
	Grab													Date & Time: 1-26-16 0615				2

***Add 3 drops of HCl to each bottle.**
****Add entire vial of HCl to each sample bottle.**
***** Fill all 3 vials completely; there can be NO AIR BUBBLES.**
******pH received after 15 minute hold time, ok to run analysis.**

Field pH: 7.1 **Field Turbidity:** .18

1 "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2 "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), soil, sediment (SDMNT), or sludge (SLDG).
3 "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4 **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
Under "Preservative," list any preservatives that were added to the sample container.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability:
pH <2 : ☑
BEA Temperature: 1.8°C

	Collector / Relinquished by:	Date:	Time:	Received By:	Date:	Time:
1	MM CW	1-26-16	0703		1-26-16	0703
2		1-26-16	1105	Amy Haubein	1/26/16	1105
3	Amy Haubein	1/26/16	1444		1/26/16	1444
4		1/26/16	1415		1/26/16	1415

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax

Office QC Check: _____
Bottle Check: _____

Date:	01/26/16		
# of Samples:	1	Total # of Bottles:	1
Method of Shipment:	Courier		
Subcontract Laboratory:	Florida Radiochemistry 5456 Hoffner Ave. #201 Orlando, Fl. 32812 Phone: 407-382-7733 Fax: 407-382-7744		
Page	1	of	1

10 BUSINESS DAY T.A.T. PLEASE

Laboratory Submission #	Collection		Sample Matrix*	Collection Method**	Preservative	Container			Parameters	Field Conductivity µs/cm
	Date	Time				Qty	Capacity	Type***		
16010863-1	01/26/16	0615	WW	24 Hr. Comp.	1:4 HNO_3	1	2 Qt	P	Gross Alpha, Radium 226 & 228	

* Sample Matrix abbreviations: Groundwater (GW), Surface Water (SW), Saline Surface Water (SSW), Fresh Surface Water(FSW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff).
** Sample Method abbreviations: Grab (G), Composite (C), 24 Hour Composite (24HR Comp.).
*** Container Type abbreviations: Plastic (P), Glass (G).

Relinquished By: (Benchmark)	Sign Name:		Date:		Received By:		Date: 2/3/16
	Print Name:	Annah Jensen	Time:			MIKE HARMON	Time: 11:50
Relinquished By:	Sign Name:		Date:		Received By:		Date:
	Print Name:		Time:				Time:

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto Fl 34221
941-723-9986

Flowers Chemical Laboratories, Inc.
481 Newburyport Ave.
Altamonte Springs Fl 32701
407-339-5984

Sampled By: Client

Matrix's:

GW- Ground water DW- Drinking water
SW- Surface water S- Soil/solid
SL- Sludge WW- Waste water

Project Name (Number): 16010863 (EP-32) | P.O.#
Client Contact: Annah Jensen / Dale Dixon | Email Report: Bettina Beilfuss / Deborah Murphy
FCL Project Manager: June Flowers / Shawn Parks
Requested Due Date: 10 Day Standard or | Rush Charges May Apply
Pick-up Fee: $ | Vehicle Surcharge $:

Item No.	Sample ID	Date	Time	Matrix	(Lab Use Only) Lab. NO.	Preservatives: Nonechlaid	1:4 H_2SO_4	1:4 HNO_3	1:1 HCl	$Na_2S_2O_3$	$Na_2S_2O_3$ - HCl	Analysis Request: 507/548.1 /547	525.2	505	Diquat 549	531.1	515.4	Comments	Total # of Containers
1	16010863-1	01/26/16	0615	WW						X		X						24 Hr. Composite 2.6 pH<2	2
2				WW							X		X						1
3				WW	288823ww1					X				X					2
4				WW						X					X				1
5				WW		X				X						X			1
6				WW						X							X		1
7																			
8																			
9																			
10																			

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Annah Jensen/BEA	01/27/16	0830								1/27/16	1438

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.Benchmarkea.com
Office QC Check: _____
Bottle Check: _____

160 11626-601 CSL

Date:	01/26/16		
Station ID:	BP-32		
# of Samples:	1	Total # of Bottles:	2
Method of Shipment:	UPS – 2 Day Air		
Subcontract Laboratory:	Summit Environmental 3310 Win Street Cuyahoga Falls, Ohio. 44223 (330) 253-8211		
Page	1	of	1

Laboratory Submission #	Collection Date	Collection Time	Sample Matrix[1]	Collection Method[2]	Preservative	Container Qty	Container Capacity	Container Type[3]	Parameters	Comments
16010863-1	01/26/16	0615	WW	24 Hr. Composite	Plain	1	950mL	G	Dioxin	

1. "Sample Matrix" abbreviations: Groundwater (GW), Surface Water (SW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff)
2. "Sample Method" abbreviations: Grab (G), Composite (C)
3. "Container Type" abbreviations: Plastic (P), Glass (G)

Relinquished By: (Benchmark)	Sign Name:		Date:	01/26/16	Received By:		Date:
	Print Name:	Annah Jensen	Time:	1600		UPS	Time:
Relinquished By:	Sign Name:		Date:		Received By:		Date: 12816
	Print Name:		Time:				Time: 1030

BENCHMARK
EnviroAnalytical Inc.

FDOH Certification #E84167

Charlotte County Utilities
25550 Harbor View Rd., Unit 1
Port Charlotte, FL 33980

Sandra Lavoie

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

INORGANIC ANALYSIS
62-550.310 (1)

REPORT NUMBER: 16010864 - 001
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1040	NITRATE NITROGEN	MG/L	11.5		353.2	0.004	01/26/2016	15:49	E84167
1041	NITRITE NITROGEN	MG/L	0.003	U	SM4500NO2B	0.003	01/26/2016	15:49	E84167
1038	NITRATE+NITRITE AS N	MG/L	11.5		353.2	0.004	02/02/2016	14:38	E84167
1005	ARSENIC	UG/L	1.08	I	SM3113B	0.689	01/28/2016	15:22	E84167
1010	BARIUM	UG/L	13.4		200.7	2	01/28/2016	17:19	E84167
1015	CADMIUM	UG/L	0.9	U	200.7	0.9	01/28/2016	17:19	E84167
1020	CHROMIUM	UG/L	2.40	I	200.7	2	01/28/2016	17:19	E84167
1025	FLUORIDE	MG/L	0.125		300.0	0.030	01/29/2016	14:00	E84167
1030	LEAD	UG/L	0.670	U	SM3113B	0.670	01/29/2016	18:00	E84167
1035	MERCURY	UG/L	0.198	U	245.1	0.198	01/28/2016	11:30	E84167
1036	NICKEL	UG/L	1.18	U	200.7	1.18	01/28/2016	17:19	E84167
1045	SELENIUM	UG/L	1.57	U	SM3113B	1.57	02/01/2016	11:42	E84167
1052	SODIUM	MG/L	100		200.7	0.034	01/28/2016	17:19	E84167
1074	ANTIMONY	UG/L	2.26	U	SM3113B	2.26	02/02/2016	18:39	E84167
1075	BERYLLIUM	UG/L	0.078	U	200.7	0.078	01/28/2016	17:19	E84167
1085	THALLIUM	UG/L	0.981	U	200.9	0.981	02/03/2016	13:11	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010864 - 001
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2005	ENDRIN	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2010	LINDANE (G-BHC)	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2015	METHOXYCHLOR	UG/L	0.0500	U	505	0.0500	01/29/2016		E83018
2020	TOXAPHENE	UG/L	0.500	U	505	0.500	01/29/2016		E83018
2031	DALAPON	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2032	DIQUAT	UG/L	0.400	U	549.2	0.400	02/02/2016		E83018
2033	ENDOTHALL	UG/L	9.00	U	548.1	9.00	02/06/2016		E83018
2034	GLYPHOSATE	UG/L	6.00	U	547	6.00	02/02/2016		E83018
2035	DI(2-ETHYLHEXYL)ADIPATE	UG/L	0.600	U	525.2	0.600	02/06/2016		E83018
2036	OXAMYL	UG/L	2.00	U	531.1	2.00	02/05/2016		E83018
2037	SIMAZINE	UG/L	0.0700	U	507	0.0700	02/08/2016		E83018
2039	DI(2-ETHYLHEXYL)PHTHALATE	UG/L	30.1	L	525.2	0.600	02/06/2016		E83018
2040	PICLORAM	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2041	DINOSEB	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2042	HEXACHLOROCYCLOPENTADIENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2046	CARBOFURAN	UG/L	0.900	U	531.1	0.900	02/05/2016		E83018
2050	ATRAZINE	UG/L	0.100	U	507	0.100	02/08/2016		E83018
2051	ALACHLOR (LASSO)	UG/L	0.200	U	507	0.200	02/08/2016		E83018
2063	2,3,7,8-TCDD	PG/L	1.37	U	1613B	1.37	02/03/2016		E87688
2065	HEPTACHLOR	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2067	HEPTACHLOR EPOXIDE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2105	2,4-D	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2110	2,4,5-TP (SILVEX)	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2274	HEXACHLOROBENZENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2306	BENZO(A)PYRENE	UG/L	0.0200	U	525.2	0.0200	02/06/2016		E83018
2326	PENTACHLOROPHENOL	UG/L	0.0400	U	515.4	0.0400	02/11/2016		E83018
2383	PCB	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2959	CHLORDANE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018

RADIONUCLIDES

62-550.310 (6)

REPORT NUMBER: 16010864 - 001
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	RADIUM-226/228 COMBINED	PCI/L	0.8	U	903.1/Ra-05	0.8	02/12/2016	10:54	E83033
4000	GROSS ALPHA	PCI/L	1.8	U	900.0	1.8	02/05/2016	14:56	E83033
4020	RADIUM-226	PCI/L	0.4+/-0.2		903.1	0.2	02/12/2016	10:54	E83033
4030	RADIUM-228	PCI/L	0.8	U	Ra-05	0.8	02/11/2016	14:37	E83033

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010864 - 001
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1002	ALUMINUM	UG/L	32.7	I	200.7	23	01/28/2016	17:19	E84167
1017	CHLORIDE	MG/L	140		300.0	0.353	02/01/2016	14:39	E84167
1022	COPPER	UG/L	4.18		SM3113B	0.346	02/09/2016	12:27	E84167
1025	FLUORIDE	MG/L	0.125		300.0	0.030	01/29/2016	14:00	E84167
1028	IRON	UG/L	68.5	I	200.7	29	01/28/2016	17:19	E84167
1032	MANGANESE	UG/L	4.30		200.7	0.98	01/28/2016	17:19	E84167
1050	SILVER	UG/L	0.800	I	200.7	0.5	01/28/2016	17:19	E84167
1055	SULFATE	MG/L	85.5		300.0	0.339	02/01/2016	14:39	E84167
1095	ZINC	UG/L	44.6		200.7	1.4	01/28/2016	17:19	E84167
1930	TOTAL DISSOLVED SOLIDS	MG/L	584		SM2540C	7.26	01/28/2016	09:58	E84167
2905	SURFACTANTS	MG/L	0.194		SM5540C	0.03	01/27/2016	10:22	E84167

INORGANIC ANALYSIS

62-550.310 (1)

REPORT NUMBER: 16010864 - 002
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1024	CYANIDE	MG/L	0.005	U	335.4	0.005	01/27/2016	11:45	E84167

DISINFECTION BYPRODUCTS

62-550.310 (3)

REPORT NUMBER: 16010864 - 002
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2941	CHLOROFORM	UG/L	90.0		624	0.5	01/29/2016	17:00	E84167
2942	BROMOFORM	UG/L	1.87	I	624	0.5	01/29/2016	17:00	E84167
2943	DICHLOROBROMOMETHANE	UG/L	53.5		624	0.5	01/29/2016	17:00	E84167
2944	DIBROMOCHLOROMETHANE	UG/L	14.0		624	0.5	01/29/2016	17:00	E84167
2950	TRIHALOMETHANES, TOTAL	UG/L	159		624	0.5	01/29/2016	17:00	E84167

VOLATILE ORGANICS

62-550.310 (4) (a)

REPORT NUMBER: 16010864 - 002
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2378	1,2,4-TRICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2380	CIS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2955	XYLENES	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2964	METHYLENE CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2968	O-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2969	PARA-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2976	VINYL CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2977	1,1-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2979	TRANS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2980	1,2-DICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2981	1,1,1-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2982	CARBON TETRACHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2983	1,2-DICHLOROPROPANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2984	TRICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2985	1,1,2-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2987	TETRACHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2989	MONOCHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2990	BENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2991	TOLUENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2992	ETHYLBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2996	STYRENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010864 - 002
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2931	1,2-DIBROMO-3-CHLOROPROPANE	UG/L	0.014	U	504.1	0.014	01/29/2016	14:00	E84167
2946	ETHYLENE DIBROMIDE	UG/L	0.01	U	504.1	0.01	01/29/2016	14:00	E84167

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010864 - 002
SYSTEM NAME: RP-8 Pri/Sec & Ann. Reclaimed
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1925	PH	UNITS	7.36	Q	SM4500H+B		01/26/2016	15:59	E84167

Dale D. Dixon / Laboratory Director — 02/22/2016 Date

Tülay Tanrisever / QC Officer

Deborah A. Murphy / Project Manager

DATA QUALIFIERS THAT MAY APPLY:

I = Reported value is between the laboratory MDL and the PQL. PQL = 4 x MDL.
J = Estimated value.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
Q = Sample held beyond accepted hold time.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate, and Spike values are within control limits. Reported data are usable.

NOTES:

ND = Not Detected at or above adjusted reporting limit.
MBAS calculated as LAS; molecular weight = 340
X = Value exceeds MCL.

L = Off-scale high; reported concentration exceeds the highest standard.
There were several exceedance is the Spikes for Bis(2-ethlyhexyl)phthalate and Simazine, however the LCS validates both of the analysis.

For questions and comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EnviroAnalytical, Inc.
1711 Twelfth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.benchmarkea.com

Client: Charlotte County Utilities
Rotonda WWTP
3740 Kendall Rd
Rotonda, West FL 33947
Tel: 941-697-0269
Fax: 941-697-1622

Chain of Custody Form: Rotonda Primary & Secondary Analysis Annual Reclaimed Water (Jan.)
Sample Matrix[2]: WW

Laboratory Submission #: 1601086

Sample ID	Sample Type[1]	Sb, As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Na, Tl Al, Cu, Fe, Mn, Ag, Zn	Dioxin	Gross α, Radium-226 & 228 Radium 226/228 Combined	MBAS	NO_3-NO_2 NO_3	Cl⁻ SO_4 TDS NO_2 (SM4500) Fluoride	SOC's (Pesticides and PCB's)						CN⁻	THM's VOCs (21) 624 ***	EDB/DBCP 504	pH ****	Lab ID #
								Carabamates 531.1	507 548 547	Herbicides 515.3	Semi-Volatiles 525.2	Glyphosate 547	Diquat 549.2					
		1:4 HNO_3 pH<2	Plain	1:4 HNO_3 pH<2	Plain	1:4 H_2SO_4 pH<2	Plain	MCAA $Na_2S_2O_3$	$Na_2S_2O_3$	$Na_2S_2O_3$	$Na_2S_2O_3$ 1:1 HCl**	$Na_2S_2O_3$	$Na_2S_2O_3$	NaOH pH>9	NaThio 1:1 HCl*	$Na_2S_2O_3$	Plain	
		1 x 1 Quart Plastic	2 x 1 Quart Glass	1 x 2 Quart Plastic	1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 1 Quart Plastic	1 x 40mL Glass Vials	2 x 1 Liter Glass	1 x 215mL Glass	2 x 1 Liter Glass	2 x 40mL Glass Vials	1 x 250mL Opaque Plastic	1 x 250mL Plastic	3 x 40mL Glass Vials***	2 x 40mL Glass Vials	1 x ½ Pint Plastic	
RP-8	Comp.	Start Date & Time: 1/25/16 0800 End Date & Time: 1/26/16 0800																1
	Grab													Date & Time: 1/26/16 0800				2

Add 3 drops of HCl to each bottle.** ** Fill all 3 vials completely; there can be NO AIR BUBBLES.**
****Add entire vial of HCl to sample bottle.**
*****pH received after 15 minute hold time, ok to run analysis.**

Field pH: 6.89 **Field Turbidity:** 0.08

1 "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2 "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), soil, sediment (SDMNT), or sludge (SLDG).
3 "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4 **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
Under "Preservative," list any preservatives that were added to the sample container.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability:
pH <2 : ☐
BEA Temperature: 1.8°C

1	Collector:	Date: 1/26/16	Time: 0820	Received By: Ed Cannet	Date: 1-26-16	Time: 0825
2	Relinquished by: Ed Cannet	Date: 1-26-16	Time: 0918	Received By:	Date: 1/26/16	Time: 0918
3	Relinquished by:	Date: 1/26/16	Time: 1105	Received By: Amy Haubein	Date: 1/26/16	Time: 1105
4	Relinquished by: Amy Haubein	Date: 1/26/16 1/26/16	Time: 1415	Received For Lab By:	Date: 1/26/16 1/26/16	Time: 1415 1915

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax

Office QC Check: _____
Bottle Check: _____

Date:	01/26/16		
# of Samples:	1	Total # of Bottles:	1
Method of Shipment:	Courier		
Subcontract Laboratory:	Florida Radiochemistry 5456 Hoffner Ave. #201 Orlando, Fl. 32812 Phone: 407-382-7733 Fax: 407-382-7744		
Page	1	of	1

10 BUSINESS DAY T.A.T. PLEASE

Laboratory Submission #	Collection		Sample Matrix*	Collection Method**	Preservative	Container			Parameters	Field Conductivity µs/cm
	Date	Time				Qty	Capacity	Type***		
16010864-1	01/26/16	0800	WW	24 Hr. Comp.	1:4 HNO_3	1	2 Qt	P	Gross Alpha, Radium 226 & 228	

* Sample Matrix abbreviations: Groundwater (GW), Surface Water (SW), Saline Surface Water (SSW), Fresh Surface Water(FSW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff).
** Sample Method abbreviations: Grab (G), Composite (C), 24 Hour Composite (24HR Comp.).
*** Container Type abbreviations: Plastic (P), Glass (G).

Relinquished By: (Benchmark)	Sign Name:	Annah Jensen	Date:		Received By:	[signature]	Date: 2-3-16
	Print Name:		Time:			MIKE [illegible]	Time: 11:50
Relinquished By:	Sign Name:		Date:		Received By:		Date:
	Print Name:		Time:				Time:

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto Fl 34221
941-723-9986

Flowers Chemical Laboratories, Inc.
481 Newburyport Ave.
Altamonte Springs Fl 32701
407-339-5984

Sampled By: Client

Matrix's:

GW- Ground water DW- Drinking water
SW- Surface water S- Soil/solid
SL- Sludge WW- Waste water

Project Name (Number): 16010864 (RP-8) | P.O.#
Client Contact: Annah Jensen / Dale Dixon | Email Report: Bettina Beilfuss / Deborah Murphy
FCL Project Manager: June Flowers / Shawn Parks
Requested Due Date: 10 Day Standard or | Rush Charges May Apply
Pick-up Fee: $ | Vehicle Surcharge $:

Item No.	Sample ID	Date	Time	Matrix	(Lab Use Only) Lab. NO.	Preservatives: Monoclacid	1:4 H_2SO_4	1:4 HNO_3	1:1 HCl	$Na_2S_2O_3$	Na_2SO_3 + HCl	Analysis Request: 507/548.1 /547	525.2	505	Diquat 549	531.1	515.4	Comments	Total # of Containers
1	16010864-1	01/26/16	0800	WW						X		X						2.6° pH<2	
2				WW							X		X						2
3				WW	288824ww1					X				X					1
4				WW						X					X			24 Hr. Composite	2
5				WW		X				X						X			1
6				WW						X							X		1
7																			1
8																			
9																			
10																			

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Annah Jensen/BEA	01/27/16	0830								1/27/16	1438

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.Benchmarkea.com
Office QC Check: _____
Bottle Check: _____

Date:	01/26/16		
Station ID:	RP-8		
# of Samples:	1	Total # of Bottles:	2
Method of Shipment:	UPS – 2 Day Air		
Subcontract Laboratory:	Summit Environmental 3310 Win Street Cuyahoga Falls, Ohio. 44223 (330) 253-8211		
Page	1	of	1

Laboratory Submission #	Collection		Sample Matrix[1]	Collection Method[2]	Preservative	Container			Parameters	Comments
	Date	Time				Qty	Capacity	Type[3]		
16010864-1	01/26/16	0800	WW	24 Hr. Composite	Plain	2	950mL	G	Dioxin	

160116 23-001
CG

1. "Sample Matrix" abbreviations: Groundwater (GW), Surface Water (SW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff)
2. "Sample Method" abbreviations: Grab (G), Composite (C)
3. "Container Type" abbreviations: Plastic (P), Glass (G)

Relinquished By: (Benchmark)	Sign Name:		Date:	01/26/16	Received By:		Date:	
	Print Name:	Annah Jensen	Time:	1600		UPS	Time:	
Relinquished By:	Sign Name:		Date:		Received By:		Date:	1/26/16
	Print Name:		Time:				Time:	1074

BENCHMARK
EnviroAnalytical Inc.

FDOH Certification #E84167

Charlotte County Utilities
25550 Harbor View Rd., Unit 1
Port Charlotte, FL 33980

Sandra Lavoie

ANALYTICAL TEST REPORT
THESE RESULTS MEET NELAC STANDARDS

INORGANIC ANALYSIS
62-550.310 (1)

REPORT NUMBER: 16010865 - 001
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1040	NITRATE NITROGEN	MG/L	10.8		353.2	0.004	01/26/2016	16:08	E84167
1041	NITRITE NITROGEN	MG/L	0.515		SM4500NO2B	0.003	01/26/2016	16:08	E84167
1038	NITRATE+NITRITE AS N	MG/L	11.3		353.2	0.004	02/02/2016	14:46	E84167
1005	ARSENIC	UG/L	0.981	I	SM3113B	0.689	01/28/2016	14:51	E84167
1010	BARIUM	UG/L	11.3		200.7	2	01/28/2016	17:01	E84167
1015	CADMIUM	UG/L	0.9	U	200.7	0.9	01/28/2016	17:01	E84167
1020	CHROMIUM	UG/L	2	U	200.7	2	01/28/2016	17:01	E84167
1025	FLUORIDE	MG/L	0.126		300.0	0.030	01/29/2016	14:20	E84167
1030	LEAD	UG/L	0.670	U	SM3113B	0.670	01/29/2016	17:33	E84167
1035	MERCURY	UG/L	0.198	U	245.1	0.198	01/28/2016	11:30	E84167
1036	NICKEL	UG/L	1.70	I	200.7	1.18	01/28/2016	17:01	E84167
1045	SELENIUM	UG/L	1.57	U	SM3113B	1.57	02/01/2016	11:15	E84167
1052	SODIUM	MG/L	91.9		200.7	0.034	01/28/2016	17:01	E84167
1074	ANTIMONY	UG/L	2.26	U	SM3113B	2.26	02/02/2016	17:47	E84167
1075	BERYLLIUM	UG/L	0.078	U	200.7	0.078	01/28/2016	17:01	E84167
1085	THALLIUM	UG/L	0.981	U	200.9	0.981	02/03/2016	11:55	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010865 - 001
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2005	ENDRIN	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2010	LINDANE (G-BHC)	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2015	METHOXYCHLOR	UG/L	0.0500	U	505	0.0500	01/29/2016		E83018
2020	TOXAPHENE	UG/L	0.500	U	505	0.500	01/29/2016		E83018
2031	DALAPON	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2032	DIQUAT	UG/L	0.400	U	549.2	0.400	02/02/2016		E83018
2033	ENDOTHALL	UG/L	9.00	U	548.1	9.00	02/06/2016		E83018
2034	GLYPHOSATE	UG/L	6.00	U	547	6.00	02/02/2016		E83018
2035	DI(2-ETHYLHEXYL)ADIPATE	UG/L	0.600	U	525.2	0.600	02/06/2016		E83018
2036	OXAMYL	UG/L	2.00	U	531.1	2.00	02/05/2016		E83018
2037	SIMAZINE	UG/L	0.0700	U	507	0.0700	02/08/2016		E83018
2039	DI(2-ETHYLHEXYL)PHTHALATE	UG/L	1.96		525.2	0.600	02/06/2016		E83018
2040	PICLORAM	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2041	DINOSEB	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2042	HEXACHLOROCYCLOPENTADIENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2046	CARBOFURAN	UG/L	0.900	U	531.1	0.900	02/05/2016		E83018
2050	ATRAZINE	UG/L	0.100	U	507	0.100	02/08/2016		E83018
2051	ALACHLOR (LASSO)	UG/L	0.200	U	507	0.200	02/08/2016		E83018
2063	2,3,7,8-TCDD	PG/L	1.34	U	1613B	1.34	02/03/2016		E87688
2065	HEPTACHLOR	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2067	HEPTACHLOR EPOXIDE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2105	2,4-D	UG/L	0.100	U	515.4	0.100	02/11/2016		E83018
2110	2,4,5-TP (SILVEX)	UG/L	0.200	U	515.4	0.200	02/11/2016		E83018
2274	HEXACHLOROBENZENE	UG/L	0.100	U	505	0.100	01/29/2016		E83018
2306	BENZO(A)PYRENE	UG/L	0.0200	U	525.2	0.0200	02/06/2016		E83018
2326	PENTACHLOROPHENOL	UG/L	0.0400	U	515.4	0.0400	02/11/2016		E83018
2383	PCB	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018
2959	CHLORDANE	UG/L	0.0100	U	505	0.0100	01/29/2016		E83018

RADIONUCLIDES

62-550.310 (6)

REPORT NUMBER: 16010865 - 001
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	RADIUM-226/228 COMBINED	PCI/L	0.8	U	903.1/Ra-05	0.8	02/12/2016	10:54	E83033
4000	GROSS ALPHA	PCI/L	1.6	U	900.0	1.6	02/05/2016	14:56	E83033
4020	RADIUM-226	PCI/L	0.2+/-0.2		903.1	0.2	02/12/2016	10:54	E83033
4030	RADIUM-228	PCI/L	0.8	U	Ra-05	0.8	02/11/2016	14:37	E83033

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010865 - 001
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
	COLOR PH	UNITS	7.18		SM4500H+B		01/26/2016	16:54	E84167
1002	ALUMINUM	UG/L	26.3	I	200.7	23	01/28/2016	17:01	E84167
1017	CHLORIDE	MG/L	96.9		300.0	0.353	02/01/2016	17:13	E84167
1022	COPPER	UG/L	0.660	I	SM3113B	0.346	02/09/2016	12:34	E84167
1025	FLUORIDE.	MG/L	0.126		300.0	0.030	01/29/2016	14:20	E84167
1028	IRON	UG/L	52.4	I	200.7	29	01/28/2016	17:01	E84167
1032	MANGANESE	UG/L	14.9		200.7	0.98	01/28/2016	17:01	E84167
1050	SILVER	UG/L	0.600	I	200.7	0.5	01/28/2016	17:01	E84167
1055	SULFATE	MG/L	97.2		300.0	0.339	02/01/2016	17:13	E84167
1095	ZINC	UG/L	44.6		200.7	1.4	01/28/2016	17:01	E84167
1905	COLOR, APPARENT	PCU	40		SM2120B	2.5	01/26/2016	16:54	E84167
1930	TOTAL DISSOLVED SOLIDS	MG/L	532		SM2540C	7.26	01/28/2016	09:58	E84167
2905	SURFACTANTS	MG/L	0.185		SM5540C	0.03	01/27/2016	10:22	E84167

INORGANIC ANALYSIS

62-550.310 (1)

REPORT NUMBER: 16010865 - 002
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1024	CYANIDE	MG/L	0.005	U	335.4	0.005	01/27/2016	11:47	E84167

DISINFECTION BYPRODUCTS

62-550.310 (3)

REPORT NUMBER: 16010865 - 002
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2941	CHLOROFORM	UG/L	0.630	I	624	0.5	01/29/2016	17:00	E84167
2942	BROMOFORM	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2943	DICHLOROBROMOMETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2944	DIBROMOCHLOROMETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2950	TRIHALOMETHANES, TOTAL	UG/L	0.630	I	624	0.5	01/29/2016	17:00	E84167

VOLATILE ORGANICS

62-550.310 (4) (a)

REPORT NUMBER: 16010865 - 002
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2378	1,2,4-TRICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2380	CIS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2955	XYLENES	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2964	METHYLENE CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2968	O-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2969	PARA-DICHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2976	VINYL CHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2977	1,1-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2979	TRANS-1,2-DICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2980	1,2-DICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2981	1,1,1-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2982	CARBON TETRACHLORIDE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2983	1,2-DICHLOROPROPANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2984	TRICHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2985	1,1,2-TRICHLOROETHANE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2987	TETRACHLOROETHENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2989	MONOCHLOROBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2990	BENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2991	TOLUENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2992	ETHYLBENZENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167
2996	STYRENE	UG/L	0.5	U	624	0.5	01/29/2016	17:00	E84167

SYNTHETIC ORGANICS

62-550.310 (4) (b)

REPORT NUMBER: 16010865 - 002
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
2931	1,2-DIBROMO-3-CHLOROPROPANE	UG/L	0.014	U	504.1	0.014	01/29/2016	14:00	E84167
2946	ETHYLENE DIBROMIDE	UG/L	0.01	U	504.1	0.01	01/29/2016	14:00	E84167

SECONDARY CONTAMINANTS

62-550.320

REPORT NUMBER: 16010865 - 002
SYSTEM NAME: WP-14 Pri/Sec Annual
SYSTEM ID:

PARAMETER ID	PARAMETER NAME	UNITS	ANALYSIS RESULT	QUALIFIER	ANALYTICAL METHOD	MDL	ANALYSIS DATE	ANALYSIS TIME	LAB ID
1925	PH	UNITS	7.19	Q	SM4500H+B		01/26/2016	15:59	E84167

Dale D. Dixon / Laboratory Director — 02/19/2016 Date

Tülay Tanrisever / QC Officer

Deborah A. Murphy / Project Manager

DATA QUALIFIERS THAT MAY APPLY:

I = Reported value is between the laboratory MDL and the PQL. PQL = 4 x MDL.
J = Estimated value.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
Q = Sample held beyond accepted hold time.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate, and Spike values are within control limits. Reported data are usable.

NOTES:

ND = Not Detected at or above adjusted reporting limit.
MBAS calculated as LAS; molecular weight = 340
X = Value exceeds MCL.

There were several exceedance is the Spikes for Bis(2-ethlyhexyl)phthalate and Simazine, however the LCS validates both of the analysis.

For questions and comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EnviroAnalytical, Inc.
1711 Twelfth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.Benchmarkea.com

Client: **Charlotte County Utilities**
West Port WWTP
15005 Cattle Dock Rd.
Port Charlotte Fl 33981
(941) 697-4888
(941)627-1210

Chain of Custody Form: Annual West Port Primary & Secondary Analysis (Jan.)
Method of Discharge: Wastewater Sample Matrix[2]: WW

Laboratory Submission #: 1601865

Sample ID	SampleType[1]:	Sb, As, Ba, Be, Cd, Cr, Pb, Hg, Ni, Se, Na, Tl Al, Cu, Fe, Mn, Ag, Zn	Cl, SO_4, TDS, NO_2, Fluoride Color/pH	Gross α, Radium-226 & 228 Radium 226/228 Combined	NO_3-NO_2 NO_3	MBAS (Foaming Agents)	Dioxin	SOC's (Pesticides and PCB's) 507 548.1 547	SOC's Semi-volatiles 525.2	SOC's 505	SOC's Diquat 549.2	SOC's 531.1	SOC's Herbicides 515.4	504.1 EDB/DBCP	THM's VOCs (21) (624) ***	pH ****	CN	Lab ID #
		1: 4 HNO_3 pH<2 ☐	Plain	1:4 HNO_3 pH<2 ☐	1:4 H_2SO_4 pH<2 ☐	Plain	Plain	$Na_2S_2O_3$	Na_2SO_3 1:1 HCl**	$Na_2S_2O_3$	$Na_2S_2O_3$	$Na_2S_2O_3$ MCAA	$Na_2S_2O_3$	NaS_2O_3	NaS_2O_3 1:1 HCl*	Plain	NaOH pH>9 ☐	
		1 x 1 Quart Plastic	1 x 1 Qt. Plastic	1 x 2 Quart Plastic	1 x ½ Pint Plastic	1 x 1 Qt. Plastic	2 x 1 Lt. Amber Glass	2 x 1 Lt. Amber Glass	1 x 1 Liter Glass	2 x 40mL Glass Vials	1 x 250mL Opaque Plastic	1 x 40mL Glass Vial	1 x 150mL Glass	2 x 40mL Glass Vials	3 x 40mL Glass Vials	1 x ½ Pt. Plastic	1 x 250mL Plastic	
WP-14	24hr Comp	Start Date & Time: 1-25-16 0700 End Date & Time: 1-26-16 0700																1
	Grab													Date & Time: 1-26-16 0710				2

***Add 3 drops of HCl to each bottle.**
****Add entire vial of HCl to sample bottle.**
***** Fill all 3 vials completely; there can be NO AIR BUBBLES.**
******pH received after 15 minute hold time, ok to run analysis.**

Field pH: _____ **Field Turbidity:** _____

1 "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2 "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), soil, sediment (SDMNT), or sludge (SLDG).
3 "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4 Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F). Under "Preservative," list any preservatives that were added to the sample container.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
3. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability:
pH <2 ☐
BEAS Temperature:
BEA Temperature: 1.8°C

1	Collector: Tarbal Bloom	Date: 1-26-16	Time: 0710	Received By: Ed Earnest	Date: 1-26-16	Time: 0800
2	Relinquished by: Ed Earnest	Date: 1-26-16	Time: 0918	Received By:	Date: 1/26/16	Time: 0918
3	Relinquished by:	Date: 1-26-16	Time: 1105	Received By: Amy Haubein	Date: 1/26/16	Time: 1105
4	Relinquished by: Amy Haubein	Date: 1/26/16	Time: 1147	Received For Lab By:	Date: 1/26/16	Time: 1147

1/26/16 1415 1/26/16 1415

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax

Office QC Check: _____
Bottle Check: _____

Date:	01/26/16		
# of Samples:	1	Total # of Bottles:	1
Method of Shipment:	Courier		
Subcontract Laboratory:	Florida Radiochemistry 5456 Hoffner Ave. #201 Orlando, Fl. 32812 Phone: 407-382-7733 Fax: 407-382-7744		
Page	1	of	1

10 BUSINESS DAY T.A.T. PLEASE

Laboratory Submission #	Collection		Sample Matrix*	Collection Method**	Preservative	Container			Parameters	Field Conductivity µs/cm
	Date	Time				Qty	Capacity	Type***		
16010865-1	01/26/16	0700	WW	24 Hr. Comp.	1:4 HNO_3	1	2 Qt	P	Gross Alpha, Radium 226 & 228	

* Sample Matrix abbreviations: Groundwater (GW), Surface Water (SW), Saline Surface Water (SSW), Fresh Surface Water(FSW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff).
** Sample Method abbreviations: Grab (G), Composite (C), 24-Hour Composite (24HR Comp.).
*** Container Type abbreviations: Plastic (P), Glass (G).

Relinquished By: (Benchmark)	Sign Name:		Date:		Received By:		Date: 2-3-14
	Print Name:	Annah Jensen	Time:			MIKE NAMAYOU	Time: 11:50
Relinquished By:	Sign Name:		Date:		Received By:		Date:
	Print Name:		Time:				Time:

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto Fl 34221
941-723-9986

Flowers Chemical Laboratories, Inc.
481 Newburyport Ave.
Altamonte Springs Fl 32701
407-339-5984

Sampled By: Client

Matrix's:

GW- Ground water DW- Drinking water
SW- Surface water S- Soil/solid
SL- Sludge WW- Waste water

Project Name (Number): 16010865 (WP-14) | P.O.#

Client Contact: Annah Jensen / Dale Dixon | Email Report: Bettina Beilfuss / Deborah Murphy

FCL Project Manager: June Flowers / Shawn Parks

Requested Due Date: 10 Day Standard or | Rush Charges May Apply

Pick-up Fee: $ | Vehicle Surcharge $:

Item No.	Sample ID	Date	Time	Matrix	(Lab Use Only) Lab. NO.	Preservatives: Monoclacid	1:4 H_2SO_4	1:4 HNO_3	1:1 HCl	$Na_2S_2O_3$	Na_2SO_3 + HCl	Analysis Request: 507/548.1 /547	525.2	505	Diquat 549	531.1	515.4	Comments	Total # of Containers
1	16010865-1	01/26/16	0700	WW						X		X						2.6°C pH<2	2
2				WW							X		X						1
3				WW	288825 WW1					X				X				24 Hr. Composite	2
4				WW						X					X				1
5				WW		X				X						X			1
6				WW						X							X		1
7																			
8																			
9																			
10																			

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Annah Jensen/BEA	01/27/16	0830								1/27/16	1438

INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc.
1711 12th Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
WWW.Benchmarkea.com
Office QC Check: _____
Bottle Check: _____

16011624 -001 CSL

Date:	01/26/16		
Station ID:	WP-14		
# of Samples:	1	Total # of Bottles:	2
Method of Shipment:	UPS – 2 Day Air		
Subcontract Laboratory:	Summit Environmental 3310 Win Street Cuyahoga Falls, Ohio. 44223 (330) 253-8211		
Page	1	of	1

Laboratory Submission #	Collection		Sample Matrix[1]	Collection Method[2]	Preservative	Container			Parameters	Comments
	Date	Time				Qty	Capacity	Type[3]		
16010865-1	01/26/16	0700	WW	24 Hr. Composite	Plain	2	950mL	G	Dioxin	

1. "Sample Matrix" abbreviations: Groundwater (GW), Surface Water (SW), Drinking Water (DW), Sludge (Sldg), Solid (Sol), Soil (Soil), Domestic Effluent (Dom Eff), Industrial Effluent (Ind Eff)
2. "Sample Method" abbreviations: Grab (G), Composite (C)
3. "Container Type" abbreviations: Plastic (P), Glass (G)

Relinquished By: (Benchmark)	Sign Name:		Date:	01/26/16	Received By:		Date:
	Print Name:	Annah Jensen	Time:	1600		UPS	Time:
Relinquished By:	Sign Name:		Date:		Received By:		Date: 1/28/16
	Print Name:		Time:				Time: 1030