Biological Assessment of

Millville Advanced Wastewater Treatment Facility

Bay County

NPDES #FL0170909

Sampled June 17, 2013

January 2014

Biology Section

Bureau of Laboratories

Division of Environmental Assessment and Restoration

2013 FDEP Bureau of Laboratories Quality Manual

NELAC Certification No. E31780

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Facility Overview

The Millville Advanced Wastewater Treatment Facility is an Advanced Domestic Wastewater Treatment (AWT) plant. The effluent is discharged into St. Andrew Bay, a Class III Marine Water (see map Appendix A). The permitted design flow of the wastewater system is 5.0 million gallons per day (MGD). The annual average effluent flow for June 2012 to May 2013 was 2.2 MGD. The facility discharges using sequential batch reactors. (Northwest District sampling staff).

Biological assessments are prepared by FDEP staff to provide information for review of NPDES permit renewal applications. Biological assessments, in conjunction with other information concerning the subject facility and its receiving-water body, are used to determine appropriate permit conditions.

See the Facility Summary (Appendix B) for a description of the facility, a summary of permit limits, and Administrative Order (AO) 075NW and discharge monitoring report (DMR) information.

Methods

The purpose of this investigation was to determine the discharger's effects on the biota of the receiving waters. Chemical and biological comparisons were made between a Test Site at the outfall and at a Control Site approximately 2 miles southwest of the outfall. The facility was not discharging to the bay when the effluent sampling was conducted. The facility began discharging to the bay at 11:15am for an unknown duration before the Test Site sampling was conducted at 12:30pm (Dan Crean, Northwest District). In St. Andrew Bay, where many facilities discharge effluent, it is difficult to attribute effluent effects detected at the Test Site to a particular facility's effluent discharge. This is the case with the Millville Advanced Wastewater Treatment Facility and its proximity to both the Lynn Haven Wastewater Treatment Facility outfall within 250 meters, and the Military Point Regional Advanced Wastewater Treatment Facility and Industrial Lagoon outfall within 1600 meters. The Control Site sampling was conducted the week prior to the effluent and Test Site sampling. Control Site samples were collected earlier to coincide with the sampling for other facilities that are nearby which could also use the same Control Site as background (see map Appendix A and Chain of Custody Appendix D). Sites were sampled on an outgoing tide (water flowing west). Effluent samples for all analyses were taken as grab and composite samples from monitoring location EFF-01.

All field and laboratory biological methods followed Bureau of Laboratories and Biology Section Standard Operating Procedures (see http://www.dep.state.fl.us/labs/library/lab_sops.htm and http://www.dep.state.fl.us/water/sas/sop/sops.htm for details) and met DEP quality assurance/quality control standards (see http://www.dep.state.fl.us/water/sas/qa/index.htm). Explanations of specific methods and measurements can be found in Appendix C.

The following were involved in this investigation: Nathan Mulkey and Rick Abad (DEP Northwest District) and FDEP Central Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Mike Tanski, Andrew Tintle, and Jennifer Weger).

Results

Organic Constituents - Water (See Table 1a and Appendix F)

- 1,4-dioxane was detected in the effluent grab sample and in both the Control and Test Site samples. These results could be invalidated because 1,4-dioxane was also detected in the field blank at a concentration similar to the field samples.
- Sucralose was detected in the effluent grab sample and at much lower levels in both the Control and Test Site samples. The detection of Sucralose at the Control Site may be indicative of the many facilities discharging into St. Andrew Bay.

Nutrients (See Table 1a and Appendix F)

- Total phosphorus and total nitrogen of the effluent composite sample complied with effluent permit limits.
- Ortho-phosphate and total phosphorus were detected in the effluent grab and composite samples at higher levels than found in both the Control and Test Site grab samples. The Control Site grab sample ortho-

phosphate and total phosphorus were at lower levels than the Test Site grab sample. The effluent may be contributing to phosphorus enrichment at the Test Site.
- Nitrogen levels were higher in the effluent grab and composite samples than they were in the Control Site and Test Site grab samples. Control Site grab sample nitrogen levels were higher than the levels found in the Test Site grab samples. There was no detectable nitrogen enrichment from the effluent at the Test Site.
- Nutrients were not detected in the field blank.

Physical and Chemical Parameters (See Table 1 and Appendices D and F)
- The shoreline was unaltered closest to the Control Site and mostly riprap and vertical seawalls at the Test Site. Both the Control and Test Sites had similar tidal fluctuations, flow, and wave action. The Control Site receives only natural runoff, whereas the Test Site receives a considerable amount of stormwater discharge from local roads and parking lots.
- Dissolved oxygen (mg/L) and pH (Standard Units) of the effluent and the receiving water complied with Class III Marine Water Quality Criteria (62-302.530, F.A.C) and effluent permit limits.
- Chlorophyll *a* was detected in the effluent grab sample at a higher level than in the grab samples from the receiving water sites. The chlorophyll *a* in the Control Site grab sample was slightly lower than in the Test Site grab sample.
- Total suspended solids (TSS; mg/L) and Carbonaceous Biochemical Oxygen Demand (CBOD; mg/L) were detected in the effluent grab and composite samples between the MDL and PQL and complied with effluent permit limits.
- Turbidity (NTU) and fluoride (mg/L) were detected in the effluent, Control Site, and Test Site grab samples in amounts that complied with Class III Marine Water Quality Criteria (62-302.530, F.A.C).

Toxicity Whole Effluent Test (See Table 1a and Appendix F)
- Tests were performed June 18 through June 25, 2013.
- The effluent sample was not toxic to the fish, *Pimephales promelas,* or to the water flea, *Ceriodaphnia dubia,* during the chronic definitive bioassays and therefore, complied with effluent permit limits.
- For more information or to obtain a copy of the toxicity bench sheets, please call the Biology Laboratory at 850-245-8177.

Microbiology (See Table 1a and Appendix F)
- Enterococci were undetected in the effluent grab sample.
- Fecal coliforms were undetected in the effluent grab sample. Fecal coliforms in the Control and Test Site grab samples were detected at levels that complied with the Class III Marine Water Quality Criterion (62-302.530, F.A.C).

Metals - Water (See Table 2 and Appendix F)
- All metals detected in the effluent, Control Site, and Test Site samples were present at levels that complied with Class III Marine Water Quality Criteria (62-302.530, F.A.C).
- Metals were not detected in the field blank.

Algal Growth Potential (See Table 3 and Appendix F)
- Raschke and Shultz (1987) determined that AGP values above 10.0 mg dry weight/L, which represents a "problem" threshold for marine receiving waters, imply nutrient enrichment. The AGP of the salinity-adjusted effluent was above the problem threshold for the saltwater species *Dunaliella tertiolecta.* The ratio of total nitrogen to total phosphorus was calculated based on nitrate and nitrite and total phosphorus from the effluent composite sample and total Kjeldahl nitrogen from the effluent grab sample, but it suggests that the effluent is nitrogen limited.
- Raschke and Shultz (1987) determined that AGP values above 5.0 mg dry weight/L, which represents a "problem" threshold for fresh receiving waters, imply nutrient enrichment. The AGP of the freshwater effluent using the freshwater species *Pseudokirchneriella subcapitata* was approximately two times the problem threshold. The ratio of total nitrogen to total phosphorus was also calculated based on nitrate and nitrite and total phosphorus from the effluent composite sample and total Kjeldahl nitrogen from the effluent grab sample, but it suggests that the effluent is nitrogen limited.

- The AGP values of the Control and Test Site samples were below the detection limit for the saltwater species *Dunaliella tertiolecta*. The Control Site AGP sample is an estimated value (J-qualified) because it was held beyond the normal holding time (Q-qualified). The ratio of total nitrogen to total phosphorus suggests that the Control Site is phosphorus limited and the Test Site is co-limited by both nitrogen and phosphorus.

Sediments (See Table 4, Figures 1 and 2, and Appendix F)

- Sediment at the Control Site consisted of silt, clay, and fine to coarse sand particle sizes compared to that at the Test Site which was coarse and medium sand. Sediment percent organic content was higher at the Control Site than the Test Site.
- No organic constituents were detected at the Control Site. Organic constituents and pesticides analyses were not run on the Test site sediments.
- Sediment metals detected at both sites were below the Threshold Effects Level (TEL) for sediment metals (MacDonald, 1994). Higher sediment metal levels at the Control Site may be due to greater binding affinity of metals to smaller sediment particle sizes (Horowitz, 1985), which were in greater proportion at the Control Site compared to the Test Site.

Bioassessment

Macroinvertebrates (See Table 5)

- The Shannon-Weaver Diversity scores were similar at the Control and Test Sites. The Control Site was mostly amphipods (33.9%) followed by polychaetes (28.9%) and bivalves (19.3%), while the Test Site was dominated by polychaetes (72.6%). The Control Site had a higher percentage of browser-grazers, burrowing deposit feeders, predators, and scavengers, while the Test Site had a higher percentage of surface deposit feeders and suspension feeders.
- For more information or to obtain a copy of the taxa lists, please call the Biology Laboratory at 850-245-8177.

Conclusion

The nitrogen results and the AGP values do not reflect nutrient enrichment at the Test Site. It is not known whether the elevated phosphorus levels in the Test Site grab samples were due to the effluent as there are many facilities discharging into St. Andrew Bay, but the effluent does have the potential to contribute to phosphorus enrichment at the Test Site. While there was no difference between the Control and Test Site in Shannon-Weaver Diversity scores, there was a marked community shift at the Test Site with its abundance of polychaete taxa as compared to at the Control Site. These differences may be partially attributable to differences in the sediment grain size composition between the two sites.

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Table 1a. Effluent limits, Class III Criteria for predominantly marine waters and chemical, microbiological and toxicological data

Millville AWT Facility	Class III Criteria	Effluent Limits	Effluent (24-hour composite)	Effluent (Grab)	Control Site	Test Site	Field Blank
Organic Constituents (µg/L)							
1,4-Dioxane	-	-	-	0.46	0.33	0.27	0.4
Sucralose	-	-	-	21	0.12	0.12	-
Nutrients (mg/L)							
Ortho-phosphate	-	-	-	0.63	0.004 U	0.038	0.004 U
Total Phosphorus	-	≤ 4.0 p	0.80	-	0.016	0.028	-
Total Ammonia	-	-	-	0.052	0.004 IJ	0.003 I	0.002 U
Un-ionized Ammonia	-	-	-	< 0.02 c	< 0.02 c	< 0.02 c	-
Nitrate and Nitrite	-	-	0.45	-	0.010	0.004 I	-
Total Kjeldahl Nitrogen	-	-	0.81	0.67	0.40	0.32 I	-
Organic Nitrogen	-	-	-	0.62 c	0.4 c	0.3 c	-
Total Nitrogen	-	≤ 16.0 p	1.3 c	-	0.41 c	0.3 c	-
Total Organic Carbon	-	-	-	5.7	3.3	2.9	0.50 U
General Physical and Chemical Parameters							
Habitat Assessment	-	-	-	-	63	44	-
Total Residual Chlorine (mg/L)	≤ 0.01	-	< 0.03 UQ£€	-	-	-	-
Chlorophyll *a* (µg/L) - Corrected	-	-	-	8.7	1.3 I	1.9	-
Phaeophytin (µg/L)	-	-	-	0.40 U	0.40 U	0.40 U	-
Total Suspended Solids (mg/L)	-	≤ 20.0 p	-	3 I	3 U	3 U	-
Percent Solids (%)	-	-	-	-	60.8	80.4 A	-
Turbidity (NTU)	< 29 t	Report	-	0.55	0.70	0.60	0.10 U
Color (true, PCU)	-	-	-	20 A	5.4 I	3.3 I	2.5 U
Alkalinity (mg CaCO3/L)	-	-	-	75	110	102 A	0.65 U
CBOD, 5 day (mg/L), N - inhibited	-	≤ 20.0 p	1.5 I	-	1.1 I	0.88 I	-
Chloride (mg/L)	-	-	-	160	17,000	16,000	0.20 U
Fluoride (mg/L)	≤ 5.0	-	-	0.36	1.1	1.1	0.035 U
Sulfate (mg/L)	-	-	-	50	2,500	2,300	0.20 U
Flow (MGD)	-	≤ 5.0 a	-	No Flow	-	-	-
Hardness (mg $CaCO_3$/L)	-	-	-	120 c	5,750 c	5,400 c	0.4 c
Toxicity (Chronic Definitive, IC25, % effluent)							
Bioassay - Water flea *(Ceriodaphnia dubia)*	-	≥ 100 p	> 100	-	-	-	-
Bioassay - Fish *(Cyprinella leedsi)*	-	≥ 100 p	> 100	-	-	-	-
Microbiology (Number of colony forming units/100 mL)							
Enterococci [¥]	-	≤ 104 s	-	4 U	4 U	76 B	-
Fecal Coliforms [¥]	≤ 400s [#]	≤ 86 s	-	1 U	2	2	-

Table 1b. Effluent limits, Class III Criteria for predominantly marine waters and depth profile data

Millville AWT Facility	Class III Criteria	Effluent Limits	Effluent (24-hour composite)	Effluent (Grab)	Control Site	Test Site	Field Blank
General Physical and Chemical Parameters							
Pchem Measurement Depth (m) - top	-	-	-	-	0.2	0.1	-
Pchem Measurement Depth (m) - middle	-	-	-	-	3.5	2.3	-
Pchem Measurement Depth (m) - bottom	-	-	-	-	6.8	6.0	-
Dissolved Oxygen (mg/L) - top	≥ 4.0	≥ 6.0 s	-	7.7	6.8	6.8	-
Dissolved Oxygen (mg/L) - middle	≥ 4.0	-	-	-	6.4	6.7	-
Dissolved Oxygen (mg/L) - bottom	≥ 4.0	-	-	-	6.1	5.4	-
Dissolved Oxygen (% saturation) - top	-	-	-	-	105.7	105.4	
Dissolved Oxygen (% saturation) - middle	-	-	-	-	98.0	104.3	
Dissolved Oxygen (% saturation) - bottom	-	-	-	-	93.9	83.5	-
pH (SU) - top	6.5 - 8.5	6.5 - 8.5 s	-	7.3	8.1	8.1	-
pH (SU) - middle	6.5 - 8.5	-	-	-	8.0	8.0	-
pH (SU) - bottom	6.5 - 8.5	-	-	-	8.0	7.9	-
Conductivity (µmhos/cm) - top	-	-	-	812	48,241	45,632	-
Conductivity (µmhos/cm) - middle	-	-	-	-	50,901	45,651	-
Conductivity (µmhos/cm) - bottom	-	-	-	-	52,014	52,324	-
Temperature (°C) - top	-	-	-	29.9	29.5	30.0	-
Temperature (°C) - middle	-	-	-	-	28.0	30.0	-
Temperature (°C) - bottom	-	-	-	-	27.8	27.5	-
Salinity – calculated (ppt)	-	-	-	< 0.36 c	29 c	27 c	-
Sample Depth (m)	-	-	-	-	0.15	0.15	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
a - Annual average
c - Value is calculated
p - 24 hour flow proportioned composite
s - Single sample
t - Shall not exceed 29 NTUs above background
A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptance range
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
L - Actual value is known to be greater than value given (appears in Appendix F)
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
V - Analyte was detected in both sample and method blank (appears in Appendix F)
IC25 - 25 percent inhibition concentration
¥ - Fecal coliform analysis performed by The Water Spigot, Panama City lab E81105
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
£ - Measurement taken in the FDEP laboratory
€ - Measurement from the first and second toxicity bioassay sample. The third sample was measured at 0.07 mg/L TRC.

See the Physical and Chemical Parameters section on page 4 of the report for more information.

Table 2. Effluent limits, Class III Marine Criteria, and metals data

Millville AWT Facility	Class III Criteria	Effluent	Control Site	Test Site
Metals (µg/L unless otherwise noted)				
Aluminum	≤ 1500	16 I	180 U	25 I
Arsenic	≤ 50	0.90 I	1.6 I	1.4 I
Cadmium	≤ 8.8	0.059 I	0.15 U	0.15 U
Calcium (mg/L)	-	29.5	358	334
Chromium, total	≤ 50 ψ	0.30 U	0.90 U	0.90 U
Copper	≤ 3.7	1.30	1.5 U	1.5 U
Iron	≤ 300	45 I	90 U	90 U
Lead	≤ 8.5	0.21 I	0.60 U	0.60 U
Magnesium (mg/L)	-	11.2	1,180	1,110
Nickel	≤ 8.3	2.10	0.75 U	0.75 U
Potassium (mg/L)	-	9.9	349	320
Selenium	≤ 71	0.20 U	0.73 I	0.60 U
Silver	≤ 2.3	0.025 U	0.075 U	0.075 U
Sodium (mg/L)	-	106	9,490	8,880
Zinc	≤ 86	50	15 U	15 U

See Table 1 for calculated hardness.

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

U - Material analyzed for but not detected; value reported is the method detection limit

ψ - Class III Marine Water Quality Criterion (62-302.530(19)(b), F.A.C.) for chromium-VI

Table 3. Measured algal growth potential (AGP; mg dry weight/L) of the freshwater species *Pseudokirchneriella subcapitata*, salt adjusted AGP for the saltwater species *Dunaliella tertiolecta*, and ratios of nitrogen to phosphorus

Millville AWT Facility						
Location	Test Species	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent	Fresh	10.7	19.1 ± 3.8 ‡	42.6 ± 8.5 ‡	0.8 ‡	1.4 ‡
Effluent *	Marine	11.5	-	-	0.8 ‡	1.4 ‡
Control Site	Marine	3.00 UJQ	-	-	3.5	25.6
Test Site	Marine	3.00 U	-	-	0.2	11.6

A dash (-) indicates that the predicted AGP/ratio is not applicable.

Fresh - freshwater species *Pseudokirchneriella subcapitata*

Marine - saltwater species *Dunaliella tertiolecta*

* - sample salinity adjusted to 7.5 ppth

‡ - Based on nitrate and nitrite and total phosphorus from the effluent 24 hour flow proportioned composite sample

J - Estimated value

Q - Sample held beyond normal holding time

U - Material analyzed for but not detected; value reported is the method detection limit

Table 4. Sediment data for Millville AWT Facility

Millville AWT Facility	TEL†	PEL†	Control Site	Test Site
Particle Size Distribution (percent volume < 2mm)				
< 0.063 mm	-	-	36.2	3.94 A
0.063 - 0.125 mm	-	-	4.65	0.855 A
0.125 - 0.25 mm	-	-	16.3	7.44 A
0.25 - 0.5 mm	-	-	26.8	31.1 A
0.5 - 2.0 mm	-	-	16.1	56.7 A
> 2.0 mm (percent dry weight)	-	-	1.0 K	2.3
Organic Content				
Organic Content (percent dry weight)	-	-	3.7	1.0 K
Organic Constituents (ug/kg)				
None Detected	-	-	None Detected	
Metals (mg/kg)				
Aluminum	-	-	-	277
Arsenic	7.24	41.6	-	0.22 I
Cadmium	0.676	4.21	0.038 U	0.032 U
Calcium	-	-	-	909
Chromium, total	52.3	160	8.11	0.97
Copper	18.7	108	2.59	0.22 I
Iron	-	-	-	318
Lead	30.2	112	4.3	0.60 I
Manganese	-	-	-	10.5
Nickel	15.9	42.8	2.16	0.23 I
Selenium	-	-	-	0.096 U
Silver	0.733	1.77	0.019 I	0.0080 U
Zinc	124	271	10	1.3 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.

† - Sediment Quality Assessment Guidelines (MacDonald 1994): TEL = Threshold Effects Level; PEL = Probable Effects Level

A - Value reported is the mean of two or more determinations

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

K - Actual value is known to be less than value given

U - Material analyzed for but not detected; value reported is the method detection limit

Table 5. Macroinvertebrate petite ponar samples – quantitative

Millville AWT Facility	Control Site	Test Site
Summary Statistics		
Shannon-Weaver Diversity	3.95	4.04
Number of Taxa	48	58
Percent Dominant Taxon	30.5	24.4
Dominant Taxon Name	*Ampelisca* sp. (Amphipoda)	*Fabricinuda trilobata* (Sabellida)
Number of samples/site	6	6
Total Number of Individuals (counted)	357	442
Community Composition: Percent of total		
Amphipoda	33.9	7.5
Bivalvia	19.3	9.7
Cephalochordata	0.0	0.7
Cumacea	3.9	0.2
Decapoda	3.1	1.6
Gastropoda	1.4	2.0
Isopoda	0.0	1.6
Lingulida	0.0	0.5
Nemertea	5.6	0.0
Polychaeta	28.9	72.6
Sipuncula	1.4	0.5
Tanaidacea	2.0	2.5
Other	0.6	0.7
Functional Feeding Groups: Percent of total		
Browser-Grazers	18.8	3.3
Burrowing Deposit Feeders	11.2	3.0
Predators	19.2	6.8
Scavengers	17.6	3.8
Scrapers	1.0	0.7
Surface Deposit Feeders	3.7	14.3
Suspension Feeders	25.2	39.7
Unknown	3.4	28.5

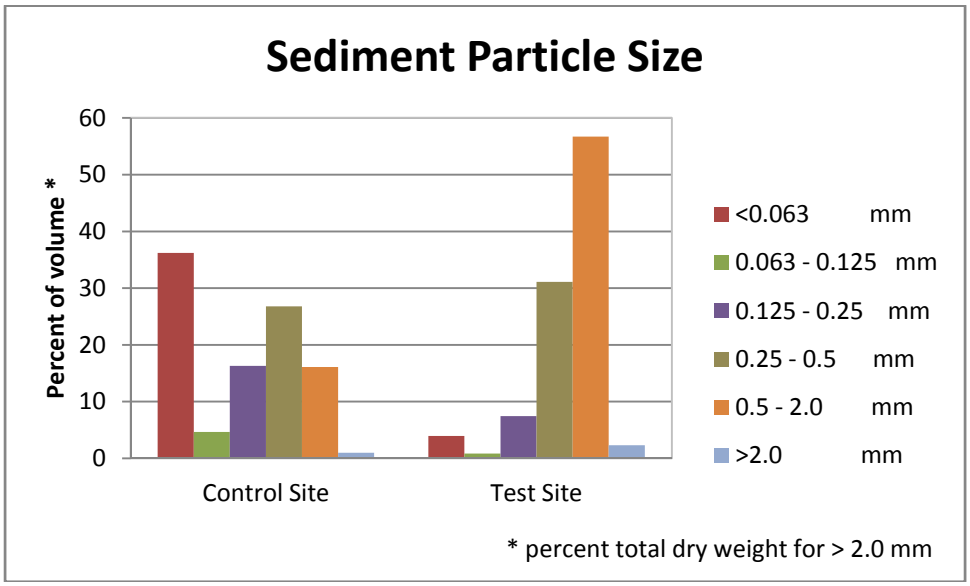


Figure 1. Sediment particle size for two sampling sites at Millville AWT Facility, June 17, 2013

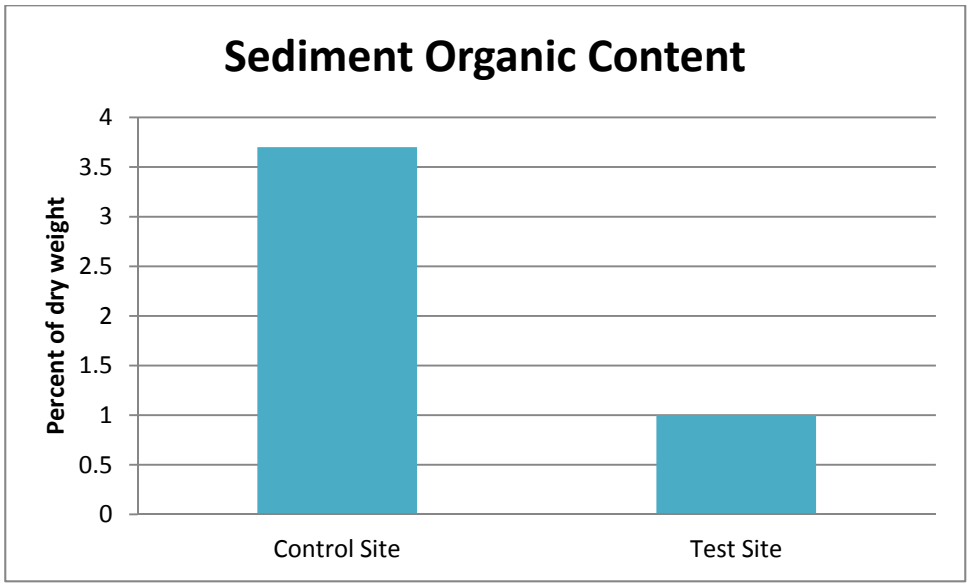
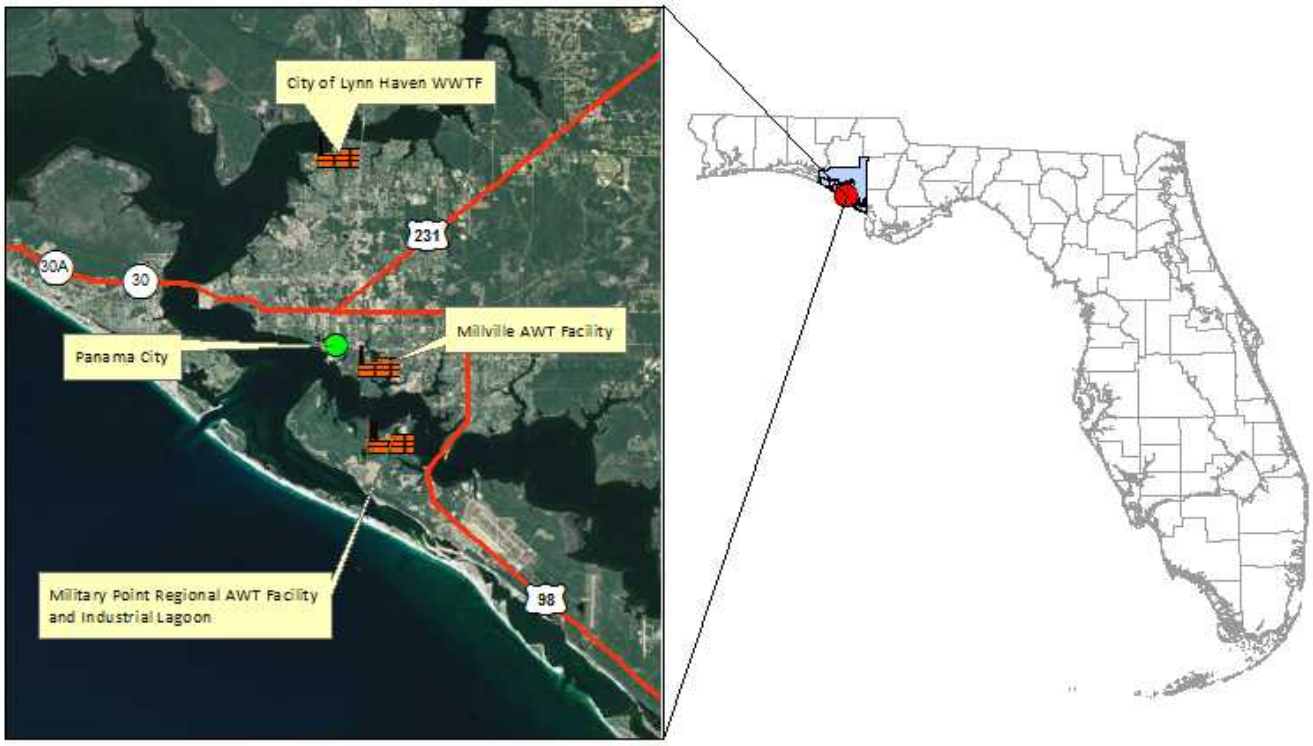


Figure 2. Sediment organic content for two sampling sites at Millville AWT Facility, June 17, 2013

Appendix A
Military Point Regional AWT Facility and Industrial Lagoon/Millville AWT Facility
Fifth Year Bioassessment Sampling Locations





Appendix B

Facility Summary

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event		
Prepared By: Daniel J. Crean and Josie Penton		**Contact Number:** (850)767-0054
Facility Name (as it appears on permit): Millville AWT Facility`		**Former Names:**
NPDES Permit Number: **FL0170909**	**Permit Expiration Date:** **January 5, 2015**	
Physical Address: 1800 E 3rd St., Panama City, florida 32401-4800		
District: NWD	**County:** Bay County	
Function of Facility: Municipal Wastewater Treatment Plant		
Facility Type: Sequential Batch Reactors (SBR)	**Permitted Capacity (MGD):** 5.0 MGD	
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): **2.3 MGD 08/01/2012 to 08/31/2013**		
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months):		
Description of type of Discharge: ☐ Continuous X Intermittent ☐ Seasonal ☐ Rainfall Dependent ☐ Other, please specify		

Actual permit designation of permitted sampling point(s):

Monitoring Site Description of Monitoring Site
FLW-01 In-Line Flow Meter on Effluent Discharge Line at Effluent Pump Station
EFF-01 Sampler at Discharge Weir at UV Basin
EFF-02 Tap on Effluent Discharge Line at Effluent Pump Station
EFF-03 Meter at Discharge Weir at Reaeration Basin
CAL-01 Calculated Value

Description of Permitted Outfall(s):
An existing 5.0 MGD annual average daily flow (AADF) discharge to St. Andrew Bay, a Class III Marine water, (WBID 1061D); a 36-inch discharge pipe extends approximately 1610 feet from shore and discharges via a 60 foot long diffuser with seven 10-inch risers spaced every 10 feet at a depth of approximately 19 feet. The point of discharge is west of US 98 and is located approximately at latitude 30°7'56.2" N, longitude 85°37'9.2" W.

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility):
An existing 5.0 MGD annual average daily flow (AADF), activated sludge, advanced wastewater treatment facility. Treatment consists of influent screening, grit removal, sequential batch reactors, post equalization, filtration, reaeration, and ultraviolet disinfection. Pretreatment facilities include two (2) automatic mechanical screens, two (2) bar screens, two (2) cyclonic pista type degritters and a chemical scrubber system for odor control. Biological treatment consists three (3), 2.0 MG Sequential Batch Reactor (SBR) units followed by two (2) 225,000-gallon post equalization tanks. Treated effluent is pumped from the tanks to five (5), 1.0 MG sand media filters, then to two (2), 113,000-gallon aeration tanks and to a three (3) channel, Infilco Degremont, Aquaray 40, Ultra Violet (UV) disinfection system. Each channel of the UV system has six (6) UV modules with forty (40) low-pressure, mercury arc lamps per module for a total of 720 lamps. Following disinfection, reclaimed water is pumped by an effluent pumping station to St. Andrew Bay via an outfall located west of East US 98. Facilities also include a 2.3 MG lined, effluent reject storage pond. Residuals are aerobically digested through two (2) primary, 400,000-gallon and two (2) secondary 211,000-gallon, aerobic digesters, then dewatered in a belt filter press and transported by truck for land application at agricultural facilities.

PART I: Continued

List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

		Limitations			Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site	Notes
Flow, to Surface Waters	MGD	Max Max	5.0 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-01	See I.A.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	10.0 10.0 15.0 20.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFF-01	
Solids, Total Suspended	mg/L	Max Max Max Max	10.0 10.0 15.0 20.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFF-01	
Nitrogen, Total	mg/L	Max Max Max Max	8.0 8.0 12.0 16.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFF-01	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	2.0 2.0 3.0 4.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFF-01	
pH	s.u.	Min Max	6.5 8.5	Single Sample Single Sample	Continuous	Automatic Sampler	EFF-02	See I.A.3
Turbidity	NTU	Max	Report	See Condition I.A.8	Continuous	Meter	EFF-02	
Ultraviolet Light Dosage	mW-s/sqcm	Min	42.7	See Condition I.A.8	Continuous	Calculated	CAL-01	
Coliform, Fecal	#/100mL	Max Max Max	14 14 86	Annual Average Monthly Median Single Sample	5 Days/Week	Grab	EFF-01	See I.A.5
Enterococci	#/100mL	Max Max	35 104	Monthly Geo. Mean Single Sample	5/Month	Grab	EFF-01	See I.A.6

Oxygen, Dissolved (DO)	mg/L	Min	6.0	Single Sample	Daily; 24 hours	Probe	EFF-03	
Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr FPC	EFF-01	See I.A.7
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr FPC	EFF-01	See I.A.7

PART I: Continued

Receiving Waters:	Classification (indicate whether fresh or marine):
St. Andrews Bay	Marine

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):

Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia) percent Min 100%
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas) percent Min 100%

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.):

DEP Permit No. FL0170909-004-DW1P/NR issued on January 6, 2010 was accompanied by Administrative Order No. AO075NW to allow the City reasonable amount of time to comply with the new requirement for Enterococci monitoring. Enterococci have been added as a monitoring requirement and have effluent limits of 35 #/100 mL monthly geometric mean and 104 #/100 mL single sample maximum in Specific Condition I.A.1 of the permit.

The City of Panama City has since completed the requirements of the AO075NW and was closed February 25, 2011.

Facility Mixing Zone Details (if applicable):

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year:

Date	Parameter and Units	Limit	Result
February 28, 2013	**Fecal Coliform #/100mL**	**86/100mL**	**220/100mL**

Describe previous FYI and WQBEL study: Previous FYI conducted in 2/12 (report issued 7/12).
Describe previous or current Enforcement Actions (including WLs):
Describe any violations or problems noted in previous inspection: **Same as above**
Discuss whether DMR trends within previous five years are improving or declining:
Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):

PART II: Sampling Event Information

Date(s) sample collected: **6/17/13**	**Sampler(s):** **Nathan Mulkey**
Temperature (Deg C): **29.91**	**pH (SU):** **7.25**
Dissolved Oxygen (mg/L): **7.72**	**Conductivity (umhos/cm):** **812**

Total Residual Chlorine (mg/L):	**Total Residual Chlorine - after Disinfection (mg/L):**
Method of Chlorination:	**Method of De-chlorination:**
Flow During Sample Collection for each outfall(MGD): **No flow during sampling (SBR)**	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day):	
Describe Discharge during Sampling Event: **☐ Continuous ☒ Intermittent ☐ Seasonal ☐ Rainfall Dependent ☐ Other, please specify**	

Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here:

Appendix C

Explanation of Measurements

(1) Quality Assurance and Quality Control

FDEP's quality assurance requirements for analytical laboratories and field activities are codified in Chapter 62-160, , F.A.C, Quality Assurance (QA Rule) and in internal Standard Operating Procedures (FDEP SOPs). Methods for all analyses are on file at the FDEP Central Laboratory in Tallahassee and may be viewed on the web at http://www.dep.state.fl.us/labs/library/lab_sops.htm and/or http://www.dep.state.fl.us/water/sas/sop/sops.htm .

(2) Chemical Analyses

The effluent and water from sampling stations were analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides. The results from these analyses were compared with Water Quality Criteria (62-302, F.A.C) and facility permit limits. Exceedances of Water Quality Criteria may constitute violations of specific provisions of Chapter 62-302 (F.A.C.) and/ or facility permit limits.

(3) Toxicity Bioassays

Greater than 50% mortality in an acute toxicity test may constitute an exceedance of 62-302.500(1)a and/or a violation of facility permit limits. A 25% inhibition concentration (IC25) is the effluent concentration causing a 25% reduction in a biological response such as biomass or reproduction when compared to a control population. An IC25 of less than 100% in a chronic test may constitute exceedances of 62-302.530(20), 62-302.530(61) and/or a violation of facility permit limits. A no observed effect concentration (NOEC) less than 100% effluent in a chronic test may constitute an exceedance of 62-302.530(61) and/or a violation of facility permit limits. Standard reference toxicant (SRT) tests are conducted monthly to ensure quality in toxicity testing.

(4) Bacteriological Testing

High levels of fecal coliform bacteria may constitute an exceedance of 62-302.530(6) and/or a violation of facility permit limits. Fecal coliform and enterococci results often are based on colony counts outside the acceptable range (B-qualifier). The dilutions performed on the sample did not yield results within the method acceptable range of 20- 60 colony forming units per plate. The B-qualifier does not affect data quality.

(5) Chlorophyll *a* Content

Chlorophyll *a* content is an estimate algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may constitute exceedances of 62-302.530(46), F.A.C, 62-302.530(47)(a) , F.A.C and/or 62-302.530(47)(b), F.A.C.

(6) Algal Growth Potential (AGP)

The algal growth potential (AGP) value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. Raschke and Shultz (1987) found that an AGP above 10.0 mg dry weight/L represents a “problem” threshold for marine receiving waters, implying nutrient enrichment. High AGP values may constitute exceedances of 62-302.530(46) , F.A.C, 62-302.530(47)(a) , F.A.C and/or 62-302.530(47)(b), F.A.C.

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP in a low salinity sample under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller et al. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of $\pm$ 20%. When the ratio of nitrogen to phosphorus (N:P) is less than 10:1, nitrogen limitation of algal production is likely. When the N:P ratio is 20:1 or greater, phosphorus limitation is likely (EPA-822-B-00-002). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic

compounds present in the water sample tested and may constitute an exceedance of 62-302.530(61) , F.A.C Expected AGP is not calculated for marine samples incubated with *Dunaliella*.

(7) Sediment Sampling

Sediments were collected using a petite ponar dredge at all sampling stations. Sediment samples were analyzed for metals, organic constituents, pesticides, organic content and sediment grain size. The results from these analyses were compared with sediment quality assessment guidelines applicable to Florida coastal waters (Table 4. in MacDonald 1994). The range of sediment contaminant concentrations that fall below the threshold effects level (TEL) are not likely to be associated with adverse biological effects on aquatic organisms. The range of sediment contaminant concentrations that fall above the probable effects level (PEL) are usually or always associated with adverse biological effects. Within the range of concentrations delineated by the TEL (lower limit) and the PEL (upper limit), adverse biological effects are possible but it is difficult to predict the occurrence, nature, and/or severity of these effects (MacDonald 1994).

(8) Benthic Macroinvertebrate Assemblages

Benthic macroinvertebrates were collected using a petite ponar dredge at all sampling stations. Five replicate ponar samples were collected at each station and sieved through a 500 μm mesh. Benthic macroinvertebrates were sorted and identified to the lowest practical taxonomic level, usually species.

Taxa richness: Taxa richness is the number of distinct macroinvertebrate taxa present in a sample. Decreases in taxa richness related to a facility's effluent may constitute exceedances of 62-302.530(46) , F.A.C, 62-302.530(47)(a) , F.A.C, 62-302.530(47)(b) , F.A.C and/or 62-302.530(61) , F.A.C.

Percent Contribution of Dominant Taxon: Percent contribution of the dominant taxon is calculated by dividing the number of individuals in the most abundant taxa by the total number of individuals counted. Percent contribution of the dominant taxon tends to increase with increasing perturbation (Plafkin *et al*., 1989). Increases in the percent contribution of the dominant taxon related to a facility's effluent may constitute exceedances of 62-302.530(46) , F.A.C, 62-302.530(47)(a) , F.A.C and/or 62-302.530(47)(b) , F.A.C.

Community Composition: Shifts in proportions of major groups of organisms downstream of a point source, compared to upstream, control conditions, may indicate negative effects of a discharge (Karr and Chu 1998). Shifts in community composition related to a facility's effluent may constitute exceedances of 62-302.530(46) , F.A.C, 62-302.530(47)(a) , F.A.C, 62-302.530(47)(b) , F.A.C and/or 62-302.530(61) , F.A.C.

Functional Feeding Groups: Environmental degradation may differentially affect groups of invertebrates based on how the group feeds (e.g. predators, deposit feeders, etc.). Changes in the proportions of functional feeding groups related to a facility's effluent may constitute exceedances of 62-302.530(46) , F.A.C, 62-302.530(47)(a) , F.A.C, 62-302.530(47)(b) , F.A.C and/or 62-302.530(61) , F.A.C.

Shannon-Weaver Diversity Index: This index is specified in the Florida Administrative Code 62-302 as a measure of biological integrity. Low diversity scores are undesirable. Where diversity is low, only a few taxa are abundant as compared to an area where many taxa are present in equitable abundance among taxa (Magurran 1988). A difference of 25% in Shannon-Weaver diversity between samples at test and control sites constitutes exceedances of 62-302.530(10) , F.A.C.

(9) Definition of Qualifiers

A - Value reported is the mean of two or more determinations

B - Results based on colony counts outside the acceptable range.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J - Estimated value

K - Actual value is known to be less than value given

L - Actual value is known to be greater than value given

N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate
Z - Colonies were too numerous to count (TNTC)

Appendix D

Chain of Custody

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-06-10-24
FYI Military Point Industrial Lagoon Sampling Inspection

Requester: Michelle Fish
Field Report Prepared By: N. Malloy
Collected By: Nathan Malloy / Rick Abuch
Send Final Report To: Kim Allen
Sampling Agency: FDEP

Customer: NW-DIST
Project ID: FYI5
PMAS: 1143

Lab ID *	Location	Field ID	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Latitude	Longitude	Collection (comp begin or grab)	Composite end	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	Sample Depth	Salinity (PPTh) / Sp Conductance (umho/cm)	NPDES Number	Comments	Bottle Group(s)**
	Military Point Industrial Lagoon	Effluent Lagoon						☐ Comp ☑ Grab Date 6/12/13 Time 1100 Eastern Central	Date Time Eastern Central				☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)			A
	Military Point Industrial Lagoon	TOX 2 Lagoon						☑ Comp ☐ Grab Date 6/11/13 Time 0800 Eastern Central	Date 6/12/13 Time 0800 Eastern Central				☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		24 hr composite	B
	St. Andrew Bay off Palmetto Point	Control	Salt, Fresh, etc	29.45	8.07	30.12693 ☑ dd ☐ dms	85.64887 ☑ dd ☐ dms	☐ Comp ☑ Grab Date 6/12/13 Time 1330 Eastern Central	Date Time Eastern Central		6.76		1.5 ☑ m ☐ ft	48241 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm)		Total Hg ID T3	
	St. Andrew Bay @ Military Pt Discharge	Test	Salt, Fresh, etc	29.46	8.10	☑ dd ☐ dms	☑ dd ☐ dms	☐ Comp ☑ Grab Date 6/12/13 Time 1230 Eastern Central	Date Time Eastern Central		6.79		1.5 ☑ m ☐ ft	☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm)		Total Hg ID T2	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	6/12/13 1630	FedEx						6/13/13, 10:32a

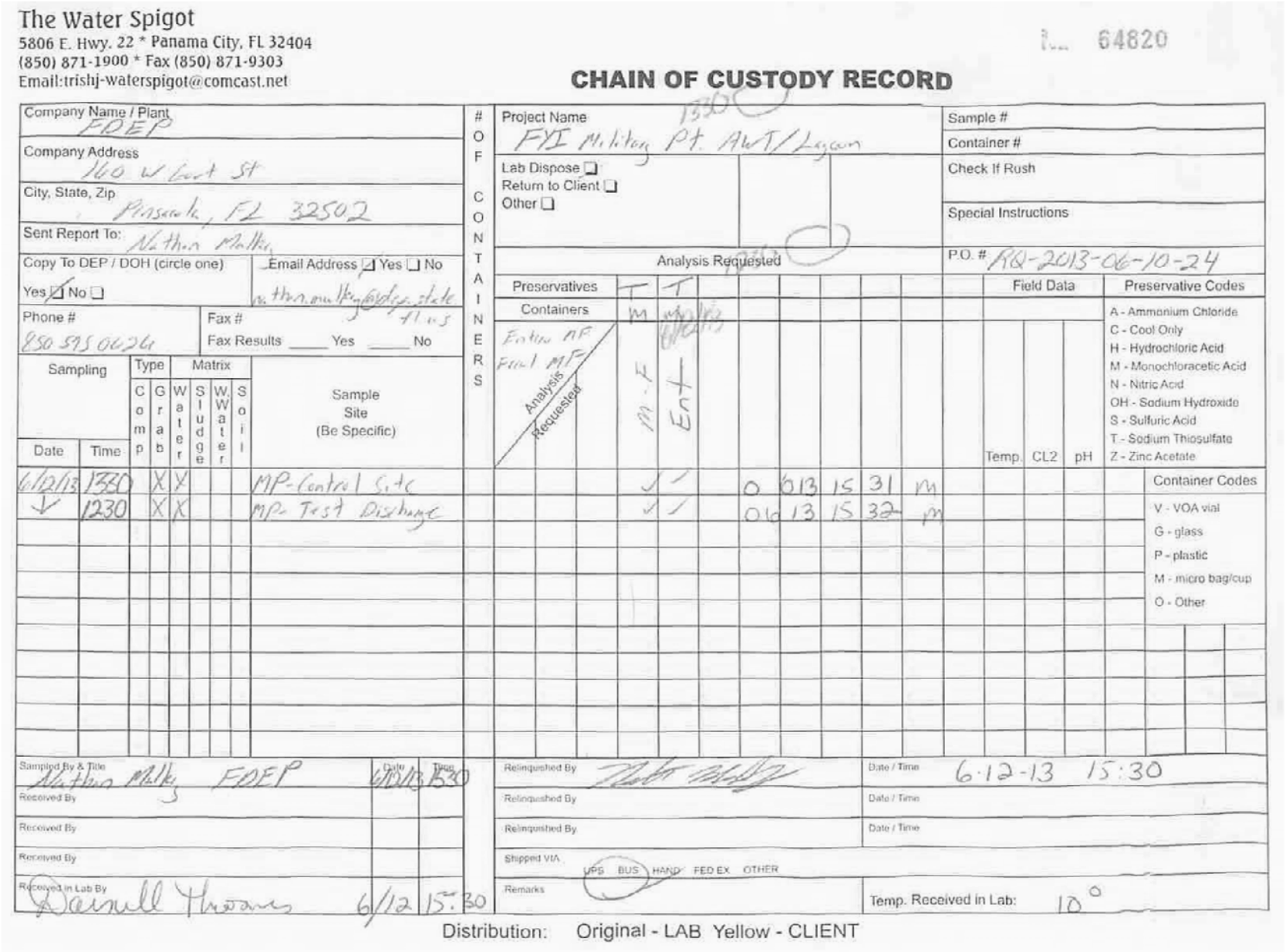
2 bioassays 6-13-13 @ 10:32 AP

* Shaded Areas for Lab use only.
** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Page 1 of 7

The Control Site for this facility is shared with another facility that is nearby. The Control Site on this Sample Submittal Form (Location: St. Andrew Bay off Palmetto Point, Field ID: Control) is for this facility, the other sets of samples on this sheet are for another facility.



The Water Spigot
5806 E. Hwy. 22 * Panama City, FL 32404
(850) 871-1900 * Fax (850) 871-9303
Email:trishj-waterspigot@comcast.net

64820

CHAIN OF CUSTODY RECORD

Company Name / Plant: FDEP
Company Address: 160 W Government St
City, State, Zip: Pensacola, FL 32502
Sent Report To: Nathan Mallis
Copy To DEP / DOH (circle one): Yes ☑ No ☐
Email Address ☑ Yes ☐ No: nathan.mallis@dep.state.fl.us
Phone #: 850 595 0624
Fax #:
Fax Results ____ Yes ____ No

OF CONTAINERS

Project Name: FY1 Military Pt. AWT/Lagoon
Lab Dispose ☐
Return to Client ☐
Other ☐
Analysis Requested
P.O. #: RQ-2013-06-10-24

Sampling: Date / Time
Type: Comp / Grab
Matrix: Water / Sludge / WWater / Soil
Sample Site (Be Specific)

Preservatives: T / T
Containers: M / M
Entire MF
Fecal MF
Analysis Requested: M.F. / Ent

Field Data: Temp. / CL2 / pH

Preservative Codes
A - Ammonium Chloride
C - Cool Only
H - Hydrochloric Acid
M - Monochloracetic Acid
N - Nitric Acid
OH - Sodium Hydroxide
S - Sulfuric Acid
T - Sodium Thiosulfate
Z - Zinc Acetate

Container Codes
V - VOA vial
G - glass
P - plastic
M - micro bag/cup
O - Other

Date	Time	Comp	Grab	Water	Sludge	WWater	Soil	Sample Site (Be Specific)	Entire MF	Fecal MF	M.F.	Ent	Temp.	CL2	pH
6/12/13	1330		X	X				MP-Control Site	✓	✓	0	613 15 31 m			
↓	1230		X	X				MP- Test Discharge	✓	✓	06	13 15 32 m			

Sampled By & Title: Nathan Mallis FDEP — Date: 6/12/13 — Time: 1530
Received By
Received By
Received By
Received in Lab By: Darrell Thomas — 6/12 — 15:30

Relinquished By: [signature] — Date / Time: 6-12-13 15:30
Relinquished By — Date / Time
Relinquished By — Date / Time
Shipped VIA: UPS BUS HAND FED EX OTHER
Remarks
Temp. Received in Lab: 10°

Distribution: Original - LAB Yellow - CLIENT

The Control Site for this facility is shared with another facility that is nearby. The Control Site on this Chain of Custody Record (Sample Site: MP – Control Site) is for this facility, the other sample on this sheet is for another facility.

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-06-17-08
FYI Millville AWT Sampling Inspection

Customer: NW-DIST
Project ID: FYI5
PMAS: 1143

Requester: Michelle Fish
Collected By: Nathan Milks / ~~Brett~~ Mike King
Sampling Agency: FDEP

Field Report Prepared By: N. Milks
Send Final Report To: Kim Allen

Lab ID *	Location / Field ID / Matrix / Temp (C) / pH / Latitude / Longitude	Collection (comp begin or grab) Eastern / Composite end Eastern / Tot Res Chlorine (mg/L) / Diss Oxygen (mg/L) / Storet Station Number / Sample Depth / Salinity (PPTh) / Sp Conductance (umho/cm) / NPDES Number / Comments	Bottle Group(s)**
	Location: Millville AWT Field ID: TOX 1 Matrix: ; Temp (C): ; pH: ; Latitude: ☐ dd ☐ dms; Longitude: ☐ dd ☐ dms	☑ Comp ☐ Grab; Collection Date 6/16/13 Time 0700 Central; Composite end Date 6/17/13 Time 0700 Central; Tot Res Chlorine (mg/L): ; Diss Oxygen (mg/L): ; Storet Station Number: ; Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number: ; Comments:	B
	Location: Millville AWT Field ID: Effluent (comp) Matrix: ; Temp (C): ; pH: ; Latitude: ☐ dd ☐ dms; Longitude: ☐ dd ☐ dms	☑ Comp ☐ Grab; Collection Date 6/16/13 Time 0700 Central; Composite end Date 6/17/13 Time 0700 Central; Tot Res Chlorine (mg/L): ; Diss Oxygen (mg/L): ; Storet Station Number: ; Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number: ; Comments:	B
	Location: Millville AWT Field ID: Effluent Matrix: ; Temp (C): 29.91; pH: 7.25; Latitude: ☐ dd ☐ dms; Longitude: ☐ dd ☐ dms	☐ Comp ☑ Grab; Collection Date 6/17/13 Time 1100 Central; Composite end Date Time Central; Tot Res Chlorine (mg/L): ; Diss Oxygen (mg/L): 7.12; Storet Station Number: ; Sample Depth ☐ m ☐ ft; 812 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm); NPDES Number: ; Comments:	A
	Location: Millville Outfall St. Andrew Bay Field ID: Test Matrix: Salt; Temp (C): 30.00; pH: 8.05; Latitude: 30.13247 ☑ dd ☐ dms; Longitude: 85.6818 ☑ dd ☐ dms	☐ Comp ☑ Grab; Collection Date 6/17/13 Time 1230 Central; Composite end Date Time Central; Tot Res Chlorine (mg/L): ; Diss Oxygen (mg/L): 6.77; Storet Station Number: ; Sample Depth ☑ m ,1C ☐ ft; 45632 ☐ Salinity (PPTh) ☑ Sp Conductance (umho/cm); NPDES Number: ; Comments:	C

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	6/17/13	Fed Ex	Maureen Faircloth	6/18/13 0954				6-18-13

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

2 bivalves Tox

09.16

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

0617-08

Request Number: RQ-2013-~~05-03-72~~

WBID 323 ~~261 432 874 496a~~

Event ID *

Requester: ~~Michael King~~ Field Report Prepared By:

Customer: NW-DIST

Project ID: ~~SMP~~

PMAS: ~~1305~~ 1143

Collected By: Send Final Report To: ~~Michael King~~

Sampling Agency:

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
	Millville AWT		Date 6/17/13 Time 1130	Date Time	F/P
	Field ID: Field Blank	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
			Date Time	Date Time	
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
			Date Time	Date Time	
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
			Date Time	Date Time	
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	6/17/13	Fed Ex					ARB	6-18-13

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

04-15

The Water Spigot
5806 E. Hwy. 22 * Panama City, FL 32404
(850) 871-1900 * Fax (850) 871-9303
Email:trishj-waterspigot@comcast.net

No. 64821

CHAIN OF CUSTODY RECORD

Company Name / Plant: FDEP
Company Address: 160 W Gad St
City, State, Zip: Pensacola, FL 32502
Sent Report To: Nathan Mulky
Copy To DEP / DOH (circle one) Email Address: ☑ Yes ☐ No
Yes ☑ No ☐
Phone #: 850 595 0626
Fax #: Fax Results ____ Yes ____ No

Project Name: FYI Millville AWT
Lab Dispose ☐
Return to Client ☐
Other ☐

Sample #
Container #
Check If Rush
Special Instructions
P.O. # RQ-2013-06-17-08

Analysis Requested

Preservatives
Containers
Analysis Requested: Fecal Membrane Filtration; Enterococci Membrane Filtration

Field Data: Temp. | CL2 | pH

Preservative Codes: A - Ammonium Chloride; C - Cool Only; H - Hydrochloric Acid; M - Monochloracetic Acid; N - Nitric Acid; OH - Sodium Hydroxide; S - Sulfuric Acid; T - Sodium Thiosulfate; Z - Zinc Acetate

Sampling Date	Sampling Time	Type Comp	Type Grab	Matrix Water	Matrix Sludge	Matrix W. Water	Matrix Soil	Sample Site (Be Specific)	# of Containers	Analysis Requested	Temp.	CL2	pH
6/17/13	1100		X			X		Millville Effluent	1	06-13-1503			
↓	1230		X	X				Millville Test	1	06-13-1502			

Container Codes: V - VOA vial; G - glass; P - plastic; M - micro bag/cup; O - Other

Sampled By & Title: Nathan Mulky, FDEP	Date: 6/17/13	Time:	Relinquished By: Nathan Mulky
Received By:			Relinquished By: Date / Time: 6/17/13 13:34
Received By:			Relinquished By: Date / Time:
Received By:			Shipped VIA: UPS BUS HAND FED EX OTHER
Received in Lab By: Bentley Stone	6/17/13	13:54	Remarks: Temp. Received in Lab: 6.2

Distribution: Original - LAB Yellow - CLIENT

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-06-17-08
FYI Millville AWT Sampling Inspection

Requester: Michelle Fish
Field Report Prepared By: N. Mulky
Collected By: Nathan Mulky
Send Final Report To: Kim Allen
Sampling Agency: FDEP

Customer: NW-DIST
Project ID: FYI5
PMAS: 1143

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
	Millville AWT	☑ Comp ☐ Grab	6/18/13 0700	6/19/13 0700	B
	Field ID: TOX2	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments			

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
		☐ Comp ☐ Grab			
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments			

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
		☐ Comp ☐ Grab			
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments			

Lab ID *	Location	Comp / Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
		☐ Comp ☐ Grab			
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Comments			

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/19/13	Fed Ex	ABD	6-20-13 0915				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

6-20-13 1005
2 bottles CR

RQ-2013-06-17-08
FYI Millville

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-~~02-04-25~~
WBID ~~351 462 075865 550 671 893~~

Requester: ~~Michael King~~
Field Report Prepared By:
Collected By:
Send Final Report To: ~~Michael King~~
Sampling Agency: FDEP

Customer: NW-DIST
Project ID: SMP
PMAS: 1306

Lab ID *	Location			☑ Comp ☐ Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
	Millville AWT				Date 6/20/13 Time 0700 (Central)	Date 6/21/13 Time 0700 (Central)	B
	Field ID: TOX 3			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments			

Lab ID *	Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
	Field ID			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments			

Lab ID *	Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
	Field ID			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments			

Lab ID *	Location			☐ Comp ☐ Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Bottle Group(s)**
	Field ID			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments			

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	6/21/13 14:20	Fed Ex	APH	6-21-13 14:20			M. Faircloth	6/21/13 1420

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

3 Styrofoam Trays

Appendix E

Physical/Chemical and Habitat Assessment Field Sheets

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FD9000-26 MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
30.12693 85.64887	32030M14*	6/12/13	1330	St. Andrew Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
FYI Military Pt	Bay	Off Palmetto Point	MP Control

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
✓							

Local Watershed Erosion (check box): None ☒ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☒ Moderate potential ☐ Obvious sources ☐

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: ____ (m above present water level) + ____ (present depth in m) = ____ (m above bed)

Tide Types and Times

High	11:18	AM (circled) / PM	AM / PM
Low	9:34	AM / PM (circled)	AM / PM

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐ ____

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand	15	6	P Poner
Rock or Shell Rubble	70	6	P Poner	Mud/Muck/Silt	15	6	P Poner
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☒ Other: ☐ ____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	%	‰	Secchi (m):
Top	0.216	29.45	8.07	6.76	48741	105.7	31.32	
Mid-depth	3.511	28.03	8.03	6.39	50901	98.0	33.34	
Bottom	6.819	27.83	7.97	6.12	52014	93.9	34.17	

System Type : Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Estuary: ☒ Other: ☐ ____

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ ____

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☒ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☒ Other: ☐ ____

Weather Conditions/Notes:
Mostly sunny humid winds 5-10 mph
*Control site also used for Millville FYI

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Nathan Mulkey Rick Abad	Rick Abad	6/12/13

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FD 9000-30 MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
	320130M14	6/12/13	St. Andrew Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
FYI Military Point	Off Palmetto Point	MP Control

Habitat Parameter (score)	Excellent	Good	Fair	Poor
Littoral Alterations 9	None—Unaltered shoreline. **9-10 points**	Mostly natural shoreline, but with occasional riprap. **6-8 points**	Shoreline consisting mostly of riprap and vertical seawalls. **3-5 points**	Shoreline consisting almost entirely of vertical seawalls. **0-2 points**
Community Types Observed 26 VM	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. **38-50 points**	Two or three communities observed from those listed. **26-37 points**	One community observed from those listed. **13-25 points**	No communities observed from those listed. **0-12 points**
Tidal Fluctuation 3	>0.75 m. **4-5 points**	0.5 - 0.75 m. **3 points**	0.25 - 0.5 m. **2 points**	<0.25 m. **0-1 point**
Freshwater Discharges/ Alterations 9	Only natural runoff.. **9-10 points**	Mostly natural runoff, but with a few, small stormwater sources. **6-8 points**	Considerable stormwater discharge from local roads, parking lots, etc. **3-5 points**	Extensive manmade discharges, especially from canals draining large tracts of land. **0-2 points**
Flow and Wave Action 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. **9-10 points**	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. **0-2 points**
Sediment Type 7	Combination of sand, gravel, and shell. **12-15 points**	Primarily sand, with small areas of mud. **8-11 points**	Mixture of sand and mud, or well-aerated mud only. **4-7 points**	Anaerobic mud. **0-3 points**

TOTAL SCORE 63

COMMENTS: Control Site for both Military Pt AWT, MP Lagoon, and Millville FYIs

ANALYSIS DATE:	ANALYST:	SIGNATURE:
6/12/13	Nathan Milby	

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FD9000-26 MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS: 30.13247 85.61918	STORET STATION NUMBER:	DATE (M/D/Y): 6/17/13	TIME 1230	RECEIVING BODY OF WATER: St. Andrew Bay

REMARKS: Millville FYI	COUNTY: Bay	SITE LOCATION: Millville WWTP Outfall	FIELD ID/NAME: Millville Test

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☒ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☒

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: ____ (m above present water level) + ____ (present depth in m) = ____ (m above bed)

Tide Types and Times

AM : PM ____ AM : PM ____

AM : PM ____ AM : PM ____

Canopy Cover % : Open : ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐ ____

Sediment Oils: Absent: ☒ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand	80	6	Petrel
Rock or Shell Rubble	10	6	Petrel	Mud/Muck/Silt	10	6	Petrel
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ ____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	max depth: 6.062		Secchi (m):
Top	0.123	30.00	8.05	6.71/105.4	45632			2.5
Mid-depth	2.313	29.96	8.01	6.70/104.3	45651			
Bottom	5.987	27.51	7.85	5.44/83.5	52304			

System Type : Stream: ☐ (1st - 2nd order ☐ 3rd - 4th order ☐ 5th - 6th order ☐ 7th order or greater ☐) Estuary: ☒ Other: ☐ ____

Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ ____

Water Surface Oils (check box): None: ☒ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☒ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☒ Other: ☐ ____

Weather Conditions/Notes:

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM: Nathan Milby / Mike King	SIGNATURE:	DATE: 6/17/13

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FD 9000-30 MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		6/17/13	St. Andrew Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
Millville FXL	Millville WWTP Outfall	Millville Test

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations 3	None—Unaltered shoreline. **9-10 points**	Mostly natural shoreline, but with occasional riprap. **6-8 points**	Shoreline consisting mostly of riprap and vertical seawalls. **3-5 points**	Shoreline consisting almost entirely of vertical seawalls. **0-2 points**
Community Types Observed 12	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. **38-50 points**	Two or three communities observed from those listed. **26-37 points**	One community observed from those listed. **13-25 points**	No communities observed from those listed. **0-12 points**
Tidal Fluctuation 3	>0.75 m. **4-5 points**	0.5 - 0.75 m. **3 points**	0.25 - 0.5 m. **2 points**	<0.25 m. **0-1 point**
Freshwater Discharges/ Alterations 5	Only natural runoff.. **9-10 points**	Mostly natural runoff, but with a few, small stormwater sources. **6-8 points**	Considerable stormwater discharge from local roads, parking lots, etc. **3-5 points**	Extensive manmade discharges, especially from canals draining large tracts of land. **0-2 points**
Flow and Wave Action 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. **9-10 points**	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. **0-2 points**
Sediment Type 12	Combination of sand, gravel, and shell. **12-15 points**	Primarily sand, with small areas of mud. **8-11 points**	Mixture of sand and mud, or well-aerated mud only. **4-7 points**	Anaerobic mud. **0-3 points**

TOTAL SCORE 44

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
6/17/13	Nathan Milby	

Appendix F

Chemical analysis of effluent and receiving water

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	1.0		%totdrywt	0	1
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	16.3		% vol <2mm	0	0.01
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	16.1		% vol <2mm	0	0.01
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	36.2		% vol <2mm	0	0.01
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	26.8		% vol <2mm	0	0.01
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	4.65		% vol <2mm	0	0.01
6/12/2013 14:30	Control Site	S-SOIL	Chlorophyll/Grain Size/BOD	Sediment % Organic	3.7		% dry wt		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Macroinvert-Marine-Quan-NatSubstr-# Taxa	48		# Taxa		
6/12/2013 14:30	Control Site	S-SOIL	Metals	Silver	0.019	I	mg/Kg	0.0096	0.038
6/12/2013 14:30	Control Site	S-SOIL	Metals	Nickel	2.16		mg/Kg	0.15	0.61
6/12/2013 14:30	Control Site	S-SOIL	Metals	Lead	4.3		mg/Kg	0.29	1.2
6/12/2013 14:30	Control Site	S-SOIL	Metals	Copper	2.59		mg/Kg	0.19	0.77
6/12/2013 14:30	Control Site	S-SOIL	Metals	Zinc	10		mg/Kg	1.5	6.1
6/12/2013 14:30	Control Site	S-SOIL	Metals	Cadmium	0.038	U	mg/Kg	0.038	0.15
6/12/2013 14:30	Control Site	S-SOIL	Metals	Chromium	8.11		mg/Kg	0.12	0.46
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Dimethyl phthalate	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Nitrobenzene	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	1,2,4-Trichlorobenzene	300	U	ug/kg	300	1200
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2,4,6-Trichlorophenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	3,3'-Dichlorobenzidine	5,900	U	ug/kg	5900	24000
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Benzo(a)pyrene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Naphthalene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	4-Chloro-3-methylphenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Acenaphthene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Di-n-butyl phthalate	590	U	ug/kg	590	2400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Fluorene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2,6-Dinitrotoluene	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2-Chloronaphthalene	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	4-Nitrophenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Benzo(g,h,i)perylene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Diethyl phthalate	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Hexachlorocyclopentadiene	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Isophorone	99	U	ug/kg	99	400

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Benzo(b)fluoranthene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	590	U	ug/kg	590	2400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Butyl benzyl phthalate	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Di-n-octyl phthalate	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Pyrene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2,4-Dinitrotoluene	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Anthracene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Bis(2-chloroethyl)ether	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Fluoranthene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Hexachlorobenzene	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	N-Nitrosodimethylamine	590	U	ug/kg	590	2400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Hexachloroethane	300	U	ug/kg	300	1200
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Phenanthrene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Phenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2,4-Dimethylphenol	590	U	ug/kg	590	2400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2-Chlorophenol	300	U	ug/kg	300	1200
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Acenaphthylene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Benzidine	2,100	U	ug/kg	2100	8600
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Dibenzo(a,h)anthracene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Hexachlorobutadiene	300	UJ	ug/kg	300	1200
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Pentachlorophenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Chrysene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Benzo(k)fluoranthene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	Benzo(a)anthracene	11	U	ug/kg	11	44
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	4-Bromophenyl phenyl ether	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2-Nitrophenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2,4-Dichlorophenol	99	U	ug/kg	99	400
6/12/2013 14:30	Control Site	S-SOIL	Priority Organic Pollutants	2,4-Dinitrophenol	590	UJ	ug/kg	590	2400
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Sample Depth	0.15		m		
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	pH	8.07				
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Dissolved Oxygen	6.76		mg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Specific Conductance	48,241		umhos/cm		
6/12/2013 14:30	Control Site	S-SOIL	Field Parameter	Dissolved Oxygen	6.76		mg/L		

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	S-SOIL	Field Parameter	Temperature	29.45		C		
6/12/2013 14:30	Control Site	S-SOIL	Field Parameter	pH	8.07				
6/12/2013 14:30	Control Site	S-SOIL	Nutrients	% Solid	60.8		%	0.1	0.1
6/12/2013 14:30	Control Site	S-SOIL	Field Parameter	Specific Conductance	48,241		umhos/cm		
6/12/2013 14:30	Control Site	S-SOIL	Field Parameter	Sample Depth	0.15		m		
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Temperature	29.45		C		
6/12/2013 14:30	Control Site	W-SURF-SLT	AGP/LN	Algal Growth Potential	3.00	UJQ	mg DryWt/L	3	3
6/12/2013 14:30	Control Site	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.3	I	ug/L	0.55	1.7
6/12/2013 14:30	Control Site	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1.1	I	mg/L	0.2	2
6/12/2013 14:30	Control Site	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40	U	ug/L	0.4	1.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Fecal Coliforms-Membrane Filter	2		cfu/100 mL	1	
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Enterococci-Membrane Filter	4	U	cfu/100 mL	4	
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Aluminum	180	U	ug/L	180	720
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Antimony	0.75	U	ug/L	0.75	3
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Nickel	0.75	U	ug/L	0.75	3
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Lead	0.60	U	ug/L	0.6	2.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Copper	1.5	U	ug/L	1.5	3
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Potassium	349		mg/L	15	60
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Selenium	0.73	I	ug/L	0.6	2.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Zinc	15	U	ug/L	15	60
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Sodium	9,490		mg/L	25	100
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Chromium	0.90	U	ug/L	0.9	3.6
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Cadmium	0.15	U	ug/L	0.15	0.6
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Arsenic	1.6	I	ug/L	0.75	3
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Molybdenum	10.3		ug/L	0.45	1.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Iron	90	U	ug/L	90	360
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Calcium	358		mg/L	0.22	0.9
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Mercury	1.8		ng/L	0.1	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Magnesium	1,180		mg/L	2	8
6/12/2013 14:30	Control Site	W-SURF-SLT	Metals	Silver	0.075	U	ug/L	0.075	0.3
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Ammonia-N	0.004	IJ	mg N/L	0.002	0.005
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Color (true)	5.4	I	PCU	2.5	6
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Alkalinity	110		mg CaCO3/L	0.65	2.5
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Turbidity	0.70		NTU	0.1	0.1
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Chloride	17,000		mg Cl/L	40	100
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Kjeldahl Nitrogen	0.40		mg N/L	0.16	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Total-P	0.016		mg P/L	0.004	0.01
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	NO2NO3-N	0.010		mg N/L	0.004	0.01
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Cyanide	0.005	U	mg CN/L	0.005	0.02

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	TSS	3	U	mg/L	3	10
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Fluoride	1.1		mg F/L	0.18	0.5
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Organic Carbon	3.3		mg C/L	1	2
6/12/2013 14:30	Control Site	W-SURF-SLT	Nutrients	Sulfate	2,500		mg SO4/L	40	100
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Penta-Dioxins	1.65	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	2,3,7,8-TCDF	0.247	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,6,7,8-HxCDD	3.1	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,7,8,9-HxCDF	0.385	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,7,8-PeCDF	0.398	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Hepta-Dioxins	2.34	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Tetra-Furans	0.247	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,4,6,7,8-HpCDD	2.34	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Chemical Oxygen Demand	780		mg/L	63	200
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,4,7,8-HxCDF	0.319	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,4,7,8,9-HpCDF	0.456	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,4,7,8-HxCDD	3	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,6,7,8-HxCDF	0.27	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Hepta-Furans	0.387	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Hexa-Dioxins	3	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Tetra-Dioxins	1.41	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,4,6,7,8-HpCDF	0.33	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Penta-Furans	0.397	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	OCDD	5.81	IJV	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Hexavalent Chromium	2.4	U	ug/L	2.4	10
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	2,3,4,7,8-PeCDF	0.396	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,7,8,9-HxCDD	2.89	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	2,3,4,6,7,8-HxCDF	0.294	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	2,3,7,8-TCDD	1.41	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	OCDF	0.435	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	1,2,3,7,8-PeCDD	1.65	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Overflow	Total Hexa-Furans	0.312	U	pg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Alachlor	0.30	U	ug/L	0.3	1.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Chlorpyrifos Ethyl	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Diazinon	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Fenamiphos	0.15	U	ug/L	0.15	0.59
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Metalaxyl	0.20	U	ug/L	0.2	0.79
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Metribuzin	0.099	U	ug/L	0.099	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Naled	0.20	U	ug/L	0.2	0.79

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Bromacil	0.20	U	ug/L	0.2	0.79
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Ethoprop	0.025	U	ug/L	0.025	0.099
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Sucralose	0.12		ug/L	0.01	0.05
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Fonofos	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.59
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Parathion Ethyl	0.099	UJ	ug/L	0.099	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Prometryn	0.099	U	ug/L	0.099	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Hexazinone	0.15	U	ug/L	0.15	0.59
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Ametryn	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Chlorpyrifos Methyl	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Phorate	0.025	UJ	ug/L	0.025	0.099
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Azinphos Methyl	0.099	U	ug/L	0.099	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Malathion	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Butylate	0.099	U	ug/L	0.099	0.4
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Parathion Methyl	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Atrazine	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Ethion	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Metolachlor	0.30	U	ug/L	0.3	1.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Mevinphos	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Pesticides	Simazine	0.049	U	ug/L	0.049	0.2
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dimethylphenol	10	U	ug/L	10	40
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.0	U	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	60
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(a)anthracene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Chrysene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Fluoranthene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Hexachlorobenzene	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0	U	ug/L	2	8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Chloromethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Chloroform	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Tetrachloroethene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	cis-1,3-Dichloropropene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	3,3'-Dichlorobenzidine	40	U	ug/L	40	160
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzidine	100	U	ug/L	100	400
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.0	U	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Nitrobenzene	2.0	U	ug/L	2	8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Pentachlorophenol	3.0	U	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Phenol	1.0	U	ug/L	1	4

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,1,1-Trichloroethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bromomethane	0.20	UJ	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Ethylbenzene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Trichlorofluoromethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	trans-1,2-Dichloroethene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2-Chloronaphthalene	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2-Nitrophenol	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Di-n-octyl phthalate	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Diethyl phthalate	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Fluorene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.0	U	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Vinyl chloride	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dichlorophenol	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2-Chlorophenol	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Dimethyl phthalate	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Naphthalene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Phenanthrene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,2-Dichloroethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bromoform	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Methylene chloride	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dinitrophenol	15	UJ	ug/L	15	60
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dinitrotoluene	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.0	U	ug/L	2	8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(k)fluoranthene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.0	U	ug/L	2	8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Butyl benzyl phthalate	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Pyrene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,1,2-Trichloroethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,1-Dichloroethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,1-Dichloroethene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,4-Dichlorobenzene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Chlorobenzene	0.20	U	ug/L	0.2	0.8

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Trichloroethene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(b)fluoranthene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Hexachloroethane	3.0	U	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Isophorone	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.0	U	ug/L	2	8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,2-Dichloropropane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Chloroethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	2,6-Dinitrotoluene	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Acenaphthene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Acenaphthylene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Anthracene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(a)pyrene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Di-n-butyl phthalate	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,1,2,2-Tetrachloroethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Dibromochloromethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.0	U	ug/L	1	4
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Hexachlorobutadiene	3.0	UJ	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.0	U	ug/L	3	12
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,4-Dioxane	0.33		ug/L	0.02	0.1
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,2-Dichlorobenzene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	1,3-Dichlorobenzene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Bromodichloromethane	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	Toluene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Priority Organic Pollutants	trans-1,3-Dichloropropene	0.20	U	ug/L	0.2	0.8
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Specific Conductance	48,241		umhos/cm		
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	pH	8.07				
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Dissolved Oxygen	6.76		mg/L		
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Sample Depth	0.15		m		
6/12/2013 14:30	Control Site	W-SURF-SLT	Field Parameter	Temperature	29.45		C		
6/17/2013 8:00	Effluent	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1.5	I	mg/L	0.2	2
6/17/2013 8:00	Effluent	W-SURF-SLT	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	100	L	IC25		
6/17/2013 8:00	Effluent	W-SURF-SLT	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	100		NOEC		
6/17/2013 8:00	Effluent	W-SURF-SLT	Toxicology	Bioassay-Chron-Def-FW-C.dubia, IC25	100	L	IC25		
6/17/2013 8:00	Effluent	W-SURF-SLT	Toxicology	Bioassay-Chron-Def-FW-C.dubia, NOEC	100		NOEC		
6/17/2013 8:00	Effluent	W-SURF-SLT	Nutrients	Kjeldahl Nitrogen	0.81		mg N/L	0.08	0.2
6/17/2013 8:00	Effluent	W-SURF-SLT	Nutrients	NO2NO3-N	0.45		mg N/L	0.004	0.01
6/17/2013 8:00	Effluent	W-SURF-SLT	Nutrients	Total-P	0.80		mg P/L	0.005	0.05
6/17/2013 12:00	Effluent	W-SURF-SLT	AGP/LN	Algal Growth Potential-Salinity Adjusted	11.5		mg DryWt/L	3	3

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 12:00	Effluent	W-SURF-SLT	AGP/LN	Algal Growth Potential	10.7		mg DryWt/L	0.3	0.9
6/17/2013 12:00	Effluent	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40	U	ug/L	0.4	1.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	8.7		ug/L	0.55	1.7
6/17/2013 12:00	Effluent	W-SURF-SLT	Overflow	Fecal Coliforms-Membrane Filter	1	U	cfu/100 mL	1	
6/17/2013 12:00	Effluent	W-SURF-SLT	Overflow	Enterococci-Membrane Filter	4	U	cfu/100 mL	4	
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Chromium	0.30	U	ug/L	0.3	1.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Aluminum	16	I	ug/L	5	20
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Lead	0.21	I	ug/L	0.2	0.8
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Copper	1.30		ug/L	0.5	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Cadmium	0.059	I	ug/L	0.05	0.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Silver	0.025	U	ug/L	0.025	0.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Iron	45	I	ug/L	30	120
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Selenium	0.20	U	ug/L	0.2	0.8
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Sodium	106		mg/L	0.5	2
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Potassium	9.9		mg/L	0.3	1.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Magnesium	11.2		mg/L	0.04	0.16
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Nickel	2.10		ug/L	0.25	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Arsenic	0.90	I	ug/L	0.25	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Zinc	50		ug/L	5	20
6/17/2013 12:00	Effluent	W-SURF-SLT	Metals	Calcium	29.5		mg/L	0.075	0.3
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Sulfate	50		mg SO4/L	0.4	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Ammonia-N	0.052		mg N/L	0.002	0.005
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Fluoride	0.36		mg F/L	0.035	0.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Alkalinity	75		mg CaCO3/L	0.65	2.5
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Turbidity	0.55		NTU	0.1	0.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Organic Carbon	5.7		mg C/L	0.5	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Chloride	160		mg Cl/L	0.4	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	TSS	3	I	mg/L	2	10
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Color (true)	20	A	PCU	2.5	6
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	O-Phosphate-P	0.63		mg P/L	0.04	0.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Nutrients	Kjeldahl Nitrogen	0.67		mg N/L	0.08	0.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Alachlor	0.33	U	ug/L	0.33	1.3
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Bromacil	0.22	U	ug/L	0.22	0.88
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Butylate	0.11	U	ug/L	0.11	0.44
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Ethoprop	0.028	U	ug/L	0.028	0.11
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Fonofos	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Simazine	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Azinphos Methyl	0.11	U	ug/L	0.11	0.44
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Chlorpyrifos Methyl	0.055	U	ug/L	0.055	0.22

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Atrazine	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Diazinon	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Metribuzin	0.11	U	ug/L	0.11	0.44
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Mevinphos	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Parathion Methyl	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Ametryn	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Malathion	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Metolachlor	0.33	U	ug/L	0.33	1.3
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Naled	0.22	UJ	ug/L	0.22	0.88
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Parathion Ethyl	0.11	UJ	ug/L	0.11	0.44
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Phorate	0.028	U	ug/L	0.028	0.11
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Ethion	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Prometryn	0.11	U	ug/L	0.11	0.44
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Sucralose	21		ug/L	0.2	1
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Fenamiphos	0.17	UJ	ug/L	0.17	0.66
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Chlorpyrifos Ethyl	0.055	U	ug/L	0.055	0.22
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Hexazinone	0.17	UJ	ug/L	0.17	0.66
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Metalaxyl	0.22	U	ug/L	0.22	0.88
6/17/2013 12:00	Effluent	W-SURF-SLT	Pesticides	Norflurazon	0.17	U	ug/L	0.17	0.66
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	62
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Nitrobenzene	2.1	U	ug/L	2.1	8.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Fluoranthene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.1	U	ug/L	2.1	8.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Naphthalene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Acenaphthene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Anthracene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Chrysene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1	U	ug/L	2.1	8.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.1	U	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2,4-Dinitrotoluene	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2-Nitrophenol	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.1	U	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Dimethyl phthalate	1.0	UJ	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.1	U	ug/L	2.1	8.2

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Pyrene	0.21	UJ	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2,4-Dichlorophenol	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	3,3'-Dichlorobenzidine	41	U	ug/L	41	160
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Benzo(a)anthracene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Benzo(k)fluoranthene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Fluorene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.1	U	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2,4-Dinitrophenol	15	UJ	ug/L	15	62
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Benzo(b)fluoranthene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Butyl benzyl phthalate	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Di-n-octyl phthalate	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Diethyl phthalate	1.0	UJ	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Phenol	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	1,4-Dioxane	0.46		ug/L	0.02	0.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2-Chloronaphthalene	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2-Chlorophenol	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1	U	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Acenaphthylene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Benzo(a)pyrene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Hexachloroethane	3.1	U	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Pentachlorophenol	3.1	U	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.1	U	ug/L	2.1	8.2
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Benzidine	100	U	ug/L	100	410
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Di-n-butyl phthalate	1.0	UJ	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Hexachlorobenzene	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Hexachlorobutadiene	3.1	UJ	ug/L	3.1	12
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Phenanthrene	0.21	U	ug/L	0.21	0.82
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2,4-Dimethylphenol	10	U	ug/L	10	41
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	2,6-Dinitrotoluene	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Priority Organic Pollutants	Isophorone	1.0	U	ug/L	1	4.1
6/17/2013 12:00	Effluent	W-SURF-SLT	Field Parameter	Temperature	29.91		C		
6/17/2013 12:00	Effluent	W-SURF-SLT	Field Parameter	Dissolved Oxygen	7.72		mg/L		
6/17/2013 12:00	Effluent	W-SURF-SLT	Field Parameter	Specific Conductance	812		umhos/cm		
6/17/2013 12:00	Effluent	W-SURF-SLT	Field Parameter	pH	7.25				
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Magnesium	0.040	U	mg/L	0.04	0.16

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Sodium	0.50	U	mg/L	0.5	2
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Selenium	0.20	U	ug/L	0.2	0.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Silver	0.025	U	ug/L	0.025	0.1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Potassium	0.30	U	mg/L	0.3	1.2
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Lead	0.20	U	ug/L	0.2	0.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Cadmium	0.050	U	ug/L	0.05	0.2
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Iron	30	U	ug/L	30	120
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Copper	0.50	U	ug/L	0.5	1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Arsenic	0.25	U	ug/L	0.25	1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Aluminum	5.0	U	ug/L	5	20
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Chromium	0.30	U	ug/L	0.3	1.2
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Nickel	0.25	U	ug/L	0.25	1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Calcium	0.075	U	mg/L	0.075	0.3
6/17/2013 12:30	Field Blank	W-FIELD-BK	Metals	Zinc	5.0	U	ug/L	5	20
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Color (true)	2.5	U	PCU	2.5	6
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Organic Carbon	0.50	U	mg C/L	0.5	1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Ammonia-N	0.002	U	mg N/L	0.002	0.005
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Turbidity	0.10	U	NTU	0.1	0.1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Sulfate	0.20	U	mg SO4/L	0.2	0.5
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Chloride	0.20	U	mg Cl/L	0.2	0.5
6/17/2013 12:30	Field Blank	W-FIELD-BK	Nutrients	Fluoride	0.035	U	mg F/L	0.035	0.1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Azinphos Methyl	0.12	U	ug/L	0.12	0.48
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Naled	0.24	UJ	ug/L	0.24	0.96
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Parathion Methyl	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Bromacil	0.24	U	ug/L	0.24	0.96
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Fenamiphos	0.18	UJ	ug/L	0.18	0.72
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Hexazinone	0.18	UJ	ug/L	0.18	0.72
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Norflurazon	0.18	U	ug/L	0.18	0.72
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Parathion Ethyl	0.12	UJ	ug/L	0.12	0.48
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Chlorpyrifos Ethyl	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Sucralose	0.012	U	ug/L	0.012	0.062
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Atrazine	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Ethoprop	0.030	U	ug/L	0.03	0.12
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Mevinphos	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Alachlor	0.36	U	ug/L	0.36	1.4
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Ametryn	0.060	U	ug/L	0.06	0.24

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Chlorpyrifos Methyl	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Malathion	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Simazine	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Butylate	0.12	U	ug/L	0.12	0.48
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Diazinon	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Metribuzin	0.12	U	ug/L	0.12	0.48
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Ethion	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Fonofos	0.060	U	ug/L	0.06	0.24
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Metolachlor	0.36	U	ug/L	0.36	1.4
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Phorate	0.030	U	ug/L	0.03	0.12
6/17/2013 12:30	Field Blank	W-FIELD-BK	Pesticides	Prometryn	0.12	U	ug/L	0.12	0.48
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	1,4-Dioxane	0.40		ug/L	0.02	0.1
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Pyrene	0.24	UJ	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Acenaphthene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Acenaphthylene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Benzo(a)anthracene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Di-n-butyl phthalate	1.2	UJ	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Di-n-octyl phthalate	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	4-Nitrophenol	18	U	ug/L	18	73
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Benzo(a)pyrene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Dimethyl phthalate	1.2	UJ	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2,4-Dinitrotoluene	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.7	U	ug/L	3.7	15
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Fluorene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.7	U	ug/L	3.7	15
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Phenanthrene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Naphthalene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.4	U	ug/L	2.4	9.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2,4-Dinitrophenol	18	UJ	ug/L	18	73
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2-Nitrophenol	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.4	U	ug/L	2.4	9.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Anthracene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Benzo(k)fluoranthene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Chrysene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Hexachlorobutadiene	3.7	UJ	ug/L	3.7	15

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Phenol	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2,4-Dichlorophenol	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2-Chlorophenol	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	3,3'-Dichlorobenzidine	49	U	ug/L	49	200
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Hexachloroethane	3.7	U	ug/L	3.7	15
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Nitrobenzene	2.4	U	ug/L	2.4	9.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2-Chloronaphthalene	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.4	U	ug/L	2.4	9.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Fluoranthene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Hexachlorobenzene	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Pentachlorophenol	3.7	U	ug/L	3.7	15
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2,6-Dinitrotoluene	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Isophorone	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	N-Nitrosodimethylamine	2.4	U	ug/L	2.4	9.8
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.7	U	ug/L	3.7	15
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2,4-Dimethylphenol	12	U	ug/L	12	49
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.7	U	ug/L	3.7	15
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Benzidine	120	U	ug/L	120	490
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Benzo(b)fluoranthene	0.24	U	ug/L	0.24	0.98
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Butyl benzyl phthalate	1.2	U	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Diethyl phthalate	1.2	UJ	ug/L	1.2	4.9
6/17/2013 12:30	Field Blank	W-FIELD-BK	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.24	U	ug/L	0.24	0.98
6/17/2013 13:30	Test Site	W-SURF-SLT	AGP/LN	Algal Growth Potential	3.00	U	mg DryWt/L	3	3
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	56.7	A	% vol <2mm	0	0.01
6/17/2013 13:30	Test Site	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.9		ug/L	0.55	1.7
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	7.44	A	% vol <2mm	0	0.01
6/17/2013 13:30	Test Site	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.88	I	mg/L	0.2	2
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	3.94	A	% vol <2mm	0	0.01
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	31.1	A	% vol <2mm	0	0.01
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	0.855	A	% vol <2mm	0	0.01
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	2.3		%totdrywt	0	1
6/17/2013 13:30	Test Site	W-SURF-SLT	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40	U	ug/L	0.4	1.2
6/17/2013 13:30	Test Site	SEDIMENT	Chlorophyll/Grain Size/BOD	Sediment % Organic	1.0	K	% dry wt		
6/17/2013 13:30	Test Site	W-SURF-SLT	Overflow	Enterococci-Membrane Filter	76	B	cfu/100 mL	4	
6/17/2013 13:30	Test Site	W-SURF-SLT	Overflow	Macroinvert-Marine-Quan-NatSubstr-# Taxa	58		# Taxa		

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 13:30	Test Site	W-SURF-SLT	Overflow	Fecal Coliforms-Membrane Filter	2		cfu/100 mL	1	
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Aluminum	277		mg/Kg	3.8	15
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Lead	0.60	U	ug/L	0.6	2.4
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Potassium	114		mg/Kg	19	77
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Sodium	2,100		mg/Kg	48	190
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Copper	0.22	I	mg/Kg	0.16	0.64
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Silver	0.075	U	ug/L	0.075	0.3
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Manganese	10.5		mg/Kg	0.064	0.26
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Nickel	0.23	I	mg/Kg	0.16	0.64
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Zinc	15	U	ug/L	15	60
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Nickel	0.75	U	ug/L	0.75	3
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Sodium	8,880		mg/L	25	100
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Selenium	0.60	U	ug/L	0.6	2.4
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Iron	318		mg/Kg	1.9	7.7
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Zinc	1.3	U	mg/Kg	1.3	5.1
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Cadmium	0.032	U	mg/Kg	0.032	0.13
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Iron	90	U	ug/L	90	360
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Magnesium	1,110		mg/L	2	8
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Potassium	320		mg/L	15	60
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Cadmium	0.15	U	ug/L	0.15	0.6
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Chromium	0.90	U	ug/L	0.9	3.6
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Chromium	0.97		mg/Kg	0.16	0.64
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Silver	0.0080	U	mg/Kg	0.008	0.032
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Calcium	334		mg/L	0.22	0.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Aluminum	25	I	ug/L	15	60
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Calcium	909		mg/Kg	6.4	26
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Arsenic	0.22	I	mg/Kg	0.064	0.26
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Lead	0.60	I	mg/Kg	0.24	0.96
6/17/2013 13:30	Test Site	SEDIMENT	Metals	Selenium	0.096	U	mg/Kg	0.096	0.38
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Arsenic	1.4	I	ug/L	0.75	3
6/17/2013 13:30	Test Site	W-SURF-SLT	Metals	Copper	1.5	U	ug/L	1.5	3
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Ammonia-N	0.003	I	mg N/L	0.002	0.005
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	TSS	3	U	mg/L	3	10
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Fluoride	1.1		mg F/L	0.18	0.5
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Color (true)	3.3	I	PCU	2.5	6
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	NO2NO3-N	0.004	I	mg N/L	0.004	0.01
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Turbidity	0.60		NTU	0.1	0.1
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Chloride	16,000		mg Cl/L	40	100
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Total-P	0.028		mg P/L	0.004	0.01

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Sulfate	2,300		mg SO4/L	40	100
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Alkalinity	102	A	mg CaCO3/L	0.65	2.5
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	O-Phosphate-P	0.038		mg P/L	0.004	0.01
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Kjeldahl Nitrogen	0.32	I	mg N/L	0.16	0.4
6/17/2013 13:30	Test Site	W-SURF-SLT	Nutrients	Organic Carbon	2.9		mg C/L	1	2
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Sucralose	0.12		ug/L	0.01	0.05
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Butylate	0.10	U	ug/L	0.1	0.42
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Chlorpyrifos Ethyl	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Norflurazon	0.16	U	ug/L	0.16	0.62
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Bromacil	0.21	U	ug/L	0.21	0.83
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Ethion	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Fenamiphos	0.16	UJ	ug/L	0.16	0.62
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Malathion	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Naled	0.21	UJ	ug/L	0.21	0.83
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Phorate	0.026	U	ug/L	0.026	0.1
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Hexazinone	0.16	UJ	ug/L	0.16	0.62
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Metalaxyl	0.21	U	ug/L	0.21	0.83
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Parathion Ethyl	0.10	UJ	ug/L	0.1	0.42
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Mevinphos	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Azinphos Methyl	0.10	U	ug/L	0.1	0.42
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Atrazine	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Simazine	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Prometryn	0.10	U	ug/L	0.1	0.42
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Metribuzin	0.10	U	ug/L	0.1	0.42
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Fonofos	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Ethoprop	0.026	U	ug/L	0.026	0.1
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Chlorpyrifos Methyl	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Metolachlor	0.31	U	ug/L	0.31	1.2
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Ametryn	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Parathion Methyl	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Diazinon	0.052	U	ug/L	0.052	0.21
6/17/2013 13:30	Test Site	W-SURF-SLT	Pesticides	Alachlor	0.31	U	ug/L	0.31	1.2
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dinitrophenol	15	UJ	ug/L	15	59
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dinitrotoluene	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2-Nitrophenol	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(b)fluoranthene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.0	U	ug/L	2	7.8
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Acenaphthylene	0.20	U	ug/L	0.2	0.78

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Phenanthrene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Phenol	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dimethylphenol	9.8	U	ug/L	9.8	39
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	59
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(a)pyrene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2-Chlorophenol	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	3,3'-Dichlorobenzidine	39	U	ug/L	39	160
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Acenaphthene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Benzidine	98	U	ug/L	98	390
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	1,4-Dioxane	0.27		ug/L	0.02	0.1
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(k)fluoranthene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Butyl benzyl phthalate	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Di-n-butyl phthalate	0.98	UJ	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Diethyl phthalate	0.98	UJ	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0	U	ug/L	2	7.8
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Anthracene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Chrysene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Fluorene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2,4-Dichlorophenol	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2,6-Dinitrotoluene	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2-Chloronaphthalene	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.0	U	ug/L	2	7.8
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Dimethyl phthalate	0.98	UJ	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Hexachlorobenzene	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Isophorone	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.0	U	ug/L	2	7.8
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Nitrobenzene	2.0	U	ug/L	2	7.8

Date_Sampled	UDL	Matrix	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Benzo(a)anthracene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Di-n-octyl phthalate	0.98	U	ug/L	0.98	3.9
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Fluoranthene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Hexachlorobutadiene	2.9	UJ	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Naphthalene	0.20	U	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Priority Organic Pollutants	Pyrene	0.20	UJ	ug/L	0.2	0.78
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Specific Conductance	45,632		umhos/cm		
6/17/2013 13:30	Test Site	SEDIMENT	Field Parameter	pH	8.05				
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Dissolved Oxygen	6.77		mg/L		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Temperature	30.00		C		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Sample Depth	0.15		m		
6/17/2013 13:30	Test Site	SEDIMENT	Nutrients	% Solid	80.4	A	%	0.1	0.1
6/17/2013 13:30	Test Site	SEDIMENT	Field Parameter	Specific Conductance	45,632		umhos/cm		
6/17/2013 13:30	Test Site	SEDIMENT	Field Parameter	Temperature	30.00		C		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	pH	8.05				
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Specific Conductance	45,632		umhos/cm		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Dissolved Oxygen	6.77		mg/L		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Temperature	30.00		C		
6/17/2013 13:30	Test Site	SEDIMENT	Field Parameter	Sample Depth	0.15		m		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	Sample Depth	0.15		m		
6/17/2013 13:30	Test Site	W-SURF-SLT	Field Parameter	pH	8.05				
6/17/2013 13:30	Test Site	SEDIMENT	Field Parameter	Dissolved Oxygen	6.77		mg/L		

EPA End Sheet

The Bioassay of the Millville AWT Facility effluent sampled on June 17, 19, and 21, 2013, NPDES #FL0170909

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 1 7 0 9 0 9 11	12 1 3 0 6 1 7	# B	# S	# 1

Remarks

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The Priority Pollutants Analysis for the Millville AWT Facility effluent sampled on June 17, 2013 NPDES #FL0170909

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 1 7 0 9 0 9 11	12 1 3 0 6 1 7	# X	# S	# 1

Remarks

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Biological Analyses of the Millville AWT Facility effluent sampled on June 17, 2013, NPDES #FL0170909

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 1 7 0 9 0 9 11	12 1 3 0 6 1 7	# S	# S	# 1

Remarks

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