

Biological Assessment of

St. Augustine WWTP #1

St. Johns County

NPDES #FL0021938

November 25-26 and 28, 2007

August 2008

Biology Section

Bureau of Laboratories

Division of Environmental Assessment and Restoration

Quality Manual No. 870346G

NELAC Certification No. E31780

Florida Department of Environmental Protection

Fifth Year Inspection Summary

Discharger:	St. Augustine WWTP #1
Physical Address:	501 Riberia Street St. Augustine, FL 32084
County:	St. Johns
NPDES Number:	FL0021938
Permit Expiration:	September 14, 2008

Toxics Sampling Inspection **(XSI)**

Date Sampled: November 26, 2007

Results: Copper and zinc were detected in the effluent at levels that complied with Class III Marine Water Quality Criteria (62-302.530 F.A.C) and facility permit limits. Aluminum, arsenic, iron, lead and nickel were present in the effluent at levels between the minimum detection limit (MDL) and practical quantitation limit (PQL), which complied with Class III Marine Water Quality Criteria and facility permit limits. Organic pollutants were not detected in the effluent. In sediments near the outfall (Site 1), six hydrocarbons (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluoranthene and pyrene) were detected at levels between the MDL and PQL and which exceeded the Threshold Effects Level (TEL) values for organic constituents. The same was true for benzo(b)fluoranthene at Site 2, farther from the outfall along the effluent dilution gradient. Sediment metal content decreased with increasing distance from the outfall; sediment metal concentrations were all below the corresponding TELs.

Compliance Biomonitoring Inspection **(CBI)**

Date Sampled: November 25-26, 2007

Results: The effluent samples were not toxic to the fish, *Menidia beryllina,* or to the mysid, *Americamysis bahia,* during the four 96-hour acute screening bioassays and therefore, complied with Class III Marine Water Quality Criteria (62-302.500) F.A.C.).

Water Quality Inspection **(WQI)**

Date Sampled: November 25-26 and 28, 2007

Results: Effluent total residual chlorine exceeded both the Class III Marine Water Quality Criteria (62-302.530(18) F.A.C.) and permit limit (≤ 0.01 mg/L) in three separate effluent samples (0.04, 0.15, and 0.08 mg/L) taken on November 26, 2007. Fecal coliforms were detected in the effluent and the receiving water at levels that did not exceed Class III Marine Water Quality Criteria or the facility's permit limits.

Impact Bioassessment Inspection **(IBI)**

Date Sampled: November 28, 2007

Results: The effluent pipe was found to be broken and effluent was being discharged into the adjacent salt marsh in addition to the designated receiving water, the Matanzas River. Sediment percent organic content was approximately 7 times greater near the outfall (Site 1, 6.8%) than at the site farthest from the outfall along the effluent dilution gradient, Site 4 (1%). The sediment discontinuity layer, a measure of oxygen penetration, was deeper at Site 4 (average 122 mm) than at Sites 1-3 (~8.3 to 42 mm depth). Quantitative measurements of benthic macroinvertebrate assemblages from ponar samples showed no signs of degradation related to the facility's effluent despite the presence of organic constituents and higher metal content in sediments nearer the outfall. Shifts in community composition can most likely be attributed to differences in substrate composition along the effluent gradient.

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.

Introduction

The City of St. Augustine WWTP #1 is located in St. Johns County, Florida (Appendix A). This facility is a complete-mix activated-sludge wastewater facility. The facility consists of two influent screens, one grit removal unit, two 1,224,000 gallon loop reactor aeration basins, two 7850 ft^2 secondary clarifiers, two 81,530 gallon chlorine contact chambers, two 163,000 gallon post aeration basins, two 360,000 gallon aerobic digesters, and two 200 GPM dewatering belt presses. Wastewater residuals are aerobically treated to meet Class B stabilization requirements, dewatered and land applied (see Facility Summary in Appendix B). The effluent is discharged through a pipe crossing 150 feet of salt marsh before discharging into the Matanzas River, a Class III marine water. The design flow of the wastewater system is 4.95 million gallons per day (MGD) annual average daily flow. The actual mean flow during this survey was 2.78 MGD on 11-26-07 and 2.65 MGD on 11-28-07 (per St. Augustine plant operator).

Class III Marine Surface Water Quality Criteria and facility permit limits are listed in Table 1. According to the facility's discharge monitoring reports, the plant exceeded the limit for total residual chlorine in May 2007 and exceeded the annual average fecal coliform limit from August 2006 through March 2007 (Appendix B).

During the 2003 FDEP Fifth Year Bioassessment inspection, the effluent discharge pipe was found broken. About 50% of the effluent was discharged into an adjacent salt marsh instead of the designated receiving water, the Matanzas River. The effluent was not toxic and contained no parameters above water quality standards, and the macroinvertebrates showed no degradation. The Wastewater Compliance and Enforcement Tracking system reported on December 2, 2003 that repairs on the effluent pipe were completed. This 2007 FDEP inspection shows there is still a break in the pipe.

Methods

The purpose of this investigation was to determine the discharger's effects on the biota of the receiving waters. Four effluent grab samples were collected once ever 6 hours over a 24-hr period (November 25 to 26, 2007) for 96-hr acute toxicity tests. On November 27, 2007, four sites were established in the Matanzas River approximately parallel to the salt marsh edge on an outgoing tide at effluent dilutions of approximately 36% (Site 1, 1m from the end of pipe; Figure 1), 16% (Site 2), 4% (Site 3) and 0% (Site 4) effluent (for method details, see Appendix C(5)). On November 28, chemical and biological data were collected at the four sites along the effluent dilution gradient. Details of measurements and data interpretation are given in Appendix C.

All field and laboratory biological methods followed Biology Section Standard Operating Procedures (SOPs, see http://www.floridadep.org/labs/qa/2002sops.htm for details) and met DEP quality assurance/quality control standards (see http://www.floridadep.org/labs/qa/index.htm).

The following were involved in this investigation: Pat O'Connor, Eesa Ali, Stephen Nye, Lisa Crespo and Sharon Piltz (DEP Northeast District) and DEP Central Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Mike Tanski, Jennifer Paris and Nancy Ross).

Results and Discussion

- Rhodamine dye injected into the effluent at the facility before discharge was seen flowing from a tidal creek parallel to the effluent pipe (Figures 1 and 2),

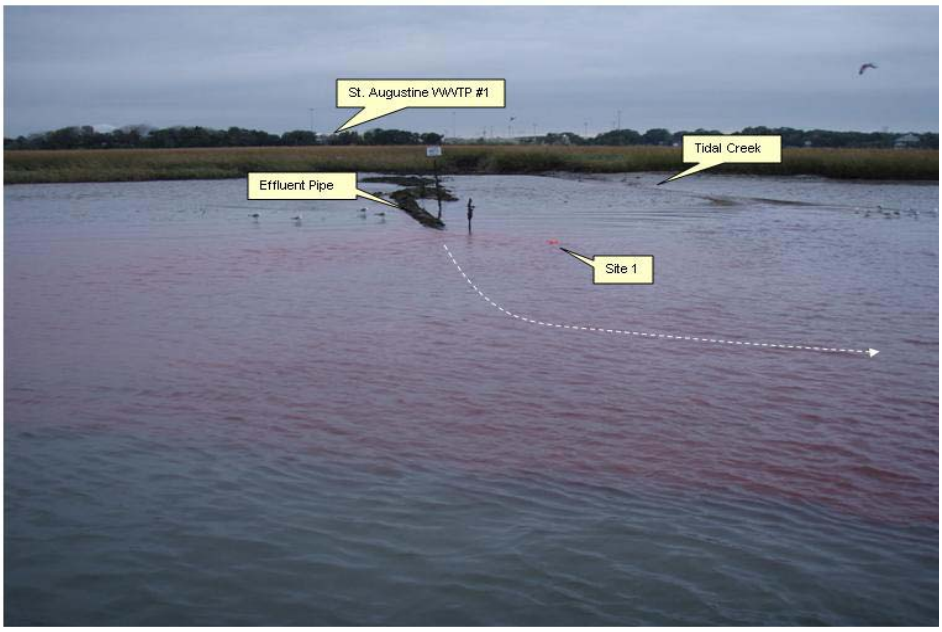


Figure 1. Rhodamine dye flowing from end of the St. Augustine WWTP effluent pipe that crosses the salt marsh. The arrow shows the direction of the dye plume on the outgoing tide. Photo taken by FDEP November 28, 2007.



Figure 2. Rhodamine dye flowing from the tidal creek paralleling the St. Augustine WWTP effluent pipe that crosses the salt marsh. Photo taken by FDEP November 28, 2007.

which indicates a break in the effluent pipe within the salt marsh between the facility and the end of pipe. The same observation of dye flowing next to the effluent pipe was made during the 2003 FDEP inspection. Despite documentation in the Wastewater Compliance and Enforcement tracking system regarding effluent pipe repairs completed in December 2003, breaks in the effluent pipe and effluent discharge to the adjacent salt marsh is still occurring. The effluent released into the adjacent salt marsh may have effects on the exposed salt marsh but the possible effects were not measured in this inspection.

- Specific chemical results from the effluent samples are reported in Table 1 and a complete list of chemical analytes can be reviewed in Appendix E. Copper and zinc were detected in the effluent at levels that complied with Class III Marine Water Quality Criteria (62-302.530 F.A.C) and facility permit limits. Aluminum, arsenic, iron, lead and nickel were present in the effluent at levels above the minimum detection limit (MDL) but below the practical quantitation limit (PQL), which complied with Class III Marine Water Quality Criteria and facility permit limits. Organic pollutants were not detected in the effluent.

- The effluent sample was not toxic to the fish, *Menidia beryllina*, or the mysid, *Americamysis bahia,* during the four 96-hour acute screening bioassays (Table 1, Appendix F) which complied with minimum Class III Marine Water Quality Criteria (62-302.500 F.A.C).

- Effluent total residual chlorine exceeded the Class III Marine Water Quality Criteria (≤ 0.01 mg/L; 62-302.530(18) F.A.C.) and permit limit (≤ 0.01 mg/L) in three separate effluent samples (0.04, 0.15, and 0.08 mg/L) taken on November 26, 2007 (Table 1).

- Fecal coliforms were detected in the effluent and receiving waters at levels that did not exceed Class III Marine Water Quality Criteria (62-302.530 F.A.C) (Table 1, Appendix F).

- Dissolved oxygen (DO as mg/L) and pH (Standard Units) of the effluent and at the four receiving water sites complied with Class III Marine Water Quality Criteria (62-302.530 F.A.C.; Table 1).

- Effluent total nitrogen, nitrate-nitrite, and total ammonia concentrations were 7.8 mg/L, 6.6 mg/L, and 0.04 mg/L, respectively (Table 1). Effluent Total Kjeldahl

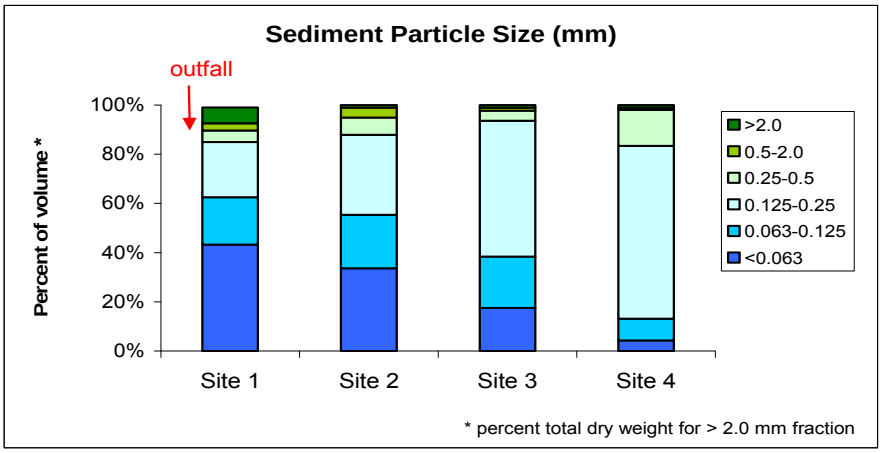


Figure 3. Sediment particle size for four sampling sites at St. Augustine WWTP #1, November 28, 2007.

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

St. Augustine WWTP #1	Class III Criteria	Effluent Limits	Effluent 11/25/07 1800	Effluent 11/26/07 0000	Effluent 11/26/07 0600	Effluent 11/26/07 1200	Site 1 11/28/07	Site 2 11/28/07	Site 3 11/28/07	Site 4 11/28/07
Exposure to effluent										
Percent effluent in overlying site water #	-	-	-	-	-	-	36%	16%	4%	0%
Organic Constituents (µg/L)										
None Detected	-	-	-	-	-	-	-	-	-	-
Metals (µg/L unless otherwise noted)										
Aluminum	≤ 1500	-	-	-	-	19 I	-	-	-	-
Arsenic	≤ 50	-	-	-	-	1.7 I	-	-	-	-
Cadmium	≤ 8.8	-	-	-	-	0.02 U	-	-	-	-
Calcium (mg/L)	-	-	-	-	-	83.9	-	-	-	-
Chromium-III	-	-	-	-	-	1 U	-	-	-	-
Copper	≤ 3.7	-	-	-	-	1.14	-	-	-	-
Iron	≤ 300	-	-	-	-	64 I	-	-	-	-
Lead	≤ 8.5	-	-	-	-	0.39 I	-	-	-	-
Magnesium (mg/L)	-	-	-	-	-	60.5	-	-	-	-
Mercury	≤ 0.025	Report	-	-	-	-	-	-	-	-
Nickel	≤ 8.3	-	-	-	-	0.8 I	-	-	-	-
Selenium	≤ 71	-	-	-	-	0.5 U	-	-	-	-
Silver	≤ 2.3	-	-	-	-	0.1 U	-	-	-	-
Zinc	≤ 86	-	-	-	-	28	-	-	-	-
Nutrients (mg/L)										
Ortho-phosphate	-	Report	-	-	-	2	0.011 I	0.011 I	0.009 I	0.008 I
Total Phosphorus	-	Report	-	-	-	2.3	0.037 I	0.043 I	0.056 I	0.045 I
Total Ammonia	-	Report	-	-	-	0.04	0.022	0.019 I	0.021	0.018 I
Un-ionized Ammonia	-	-	-	-	-	≤ 0.02 c	≤ 0.02 c	≤ 0.02 c	≤ 0.02 c	≤ 0.02 c
Nitrate and Nitrite	-	Report	-	-	-	6.6	0.008 I	0.009 I	0.007 I	0.009 I
Total Kjeldahl Nitrogen	-	< 28 s p	-	-	-	1.2	0.4 I	0.39 I	0.48	0.42
Organic Nitrogen	-	Report	-	-	-	1.16 c	0.378 c	0.371 c	0.459 c	0.402 c
Total Nitrogen	-	Report	-	-	-	7.8 c	0.408 c	0.399 c	0.487 c	0.429 c
General Physical and Chemical Parameters										
Dissolved Oxygen (mg/L)	≥ 4.0	≥ 5.1	7.1	7.1	7.2	7.3	9.1	10.5	10.1	9.6
pH (SU)	6.5 - 8.5	6.5 - 8.5	6.9	7.1	7.2	7.2	8.1	8.1	8.1	8.1
Conductivity (µmhos/cm)	-	-	2,722	2,078	3,411	3,308	51,750	52,126	52,232	52,304
Temperature (°C)	-	-	23.9	23.9	23.9	24.3	19.2	20.0	19.9	19.8
Salinity (ppt) - measured	-	-	1.4	1.4	1.8	1.7	34.1	34.4	34.5	34.5
Sample Depth (m)	-	-	0.7	0.6	0.6	0.4	0.15	0.15	0.15	0.15
Total Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01	0.02 U	0.04	0.15	0.08	-	-	-	-
Chlorophyll a (µg/L) - Corrected	-	-	-	-	-	-	4	4.6 A	1.4 I	5.3
Phaeophytin (µg/L)	-	-	-	-	-	-	1.6	2 A	0.57 I	2.7
Total Suspended Solids (mg/L)	-	< 60 s p	-	-	-	4 U	29	30	51	41
CBOD, 5 day (mg/L), N - inhibited	-	< 60 s p	-	-	-	-	-	-	-	-
Oils and Greases (mg/L)	≤ 5.0	-	-	-	-	1.7 UV	-	-	-	-
Cyanide (µg/L)	≤ 1.0	Report	-	-	-	-	-	-	-	-
Flow (MGD)	-	< 4.95 a	-	-	-	2.78	-	-	-	-
Hardness (mg $CaCO_3$)	-	-	-	-	-	458.64 c	-	-	-	-
Toxicity (96-hour acute static renewal bioassay, percent mortality in 100% effluent)										
Bioassay - Mysid *(Americamysis bahia)*	-	≤ 50%	5%	0%	0%	5%	-	-	-	-
Bioassay - Fish *(Menidia beryllina)*	-	≤ 50%	5%	0%	5%	0%	-	-	-	-
Microbiology (Number of colony forming units/100ml)										
Fecal Coliforms *	≤ 400 &	≤ 800 s	-	-	-	88	24 B	12 B	8 B	4 B

Value exceeds the Class III Water Quality Criteria or permit limits

- calculation based on 2.65 MGD effluent flow on 11/28/07
a - Annual average
b - Value is calculated based on hardness
c - Value is calculated
k - Chromium detected at 1.4 I µg/L in core blank
s - Single sample
p - 24-hour flow proportioned composite
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
U - Material analyzed for but not detected; value reported is the method detection limit
V - Analyte was detected in both sample and method blank
* - Analyses conducted at the DEP Northeast District Lab
& - If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)

Nitrogen (1.2 mg/L) complied with the facility permit limit (<28 mg/L). Effluent total phosphorus was 2.3 mg/L and ortho-phosphate was 2 mg/L. There was no detectable nutrient enrichment from the effluent in the receiving waters; total nitrogen was <0.5 mg/L for all receiving water sites, and total phosphorus was < 0.06 mg/L.

- Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller *et al*. 1978). Raschke and Shultz (1987) found that AGP above 10.0 mg dry weight/L represents a "problem" threshold for marine receiving waters, implying nutrient enrichment. The AGP value of the effluent, 224 mg dry weight/L of the marine test species, greatly exceeded the threshold (Table 2). The AGP values for the receiving water did not exceed the problem threshold (below detection limit of 3 mg dry wt/L). There was no detectable enrichment related to the discharge in this portion of the Matanzas River.

- Chlorophyll *a* was not sampled in the effluent. Chlorophyll *a* was detected at a level above the MDL but below the PQL at Site 3 (1.4 µg/L) and ranged from 4 µg/L to 5.3 µg/L at the three other receiving water sites, at no discernable gradient from the outfall (Table 1).

Table 2. Measured algal growth potential (AGP; mg dry weight/L) of the saltwater species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus.

St. Augustine WWTP #1				
Location	AGP (measured)		Inorganic N:P ratio	Total N:P ratio
Effluent	224 *		3.3	3.4
Site 1	3.0	U	2.7	11.0
Site 2	3.0	U	2.5	9.3
Site 3	3.0	U	3.1	8.7
Site 4	3.0	U	3.4	9.5

* sample salinity adjusted to 7 ppt
U - Material analyzed for but not detected; value reported is the method detection limit

- Sediments were collected at all sites for determination of grain size and percent organic content. There were a greater percentage of small (<0.063 to 0.125 mm) and large (0.5 to > 2 mm) particle sizes nearest the outfall (Table 2, Figure 3). Percent organic content was greatest near the outfall, with almost 7 times the organic content at the end of pipe Site 1 (6.8%), than at the unexposed Site 4 (1%) (Table 2, Figure 4). Much of the substrate at Site 4 was shell hash.
- The discontinuity layer is a measure of the depth of oxygen penetration in sediments, marking the point in the sediments where the balance between reduction and oxygen-ation reactions shifts to reducing, anoxic conditions. This layer is usually marked with a strong color shift from light to black sediments and can easily be measured in core samples. Organic load tends to shift the discontinuity layer upwards in the sediments, reducing the area where benthic macroinvertebrates can persist. As expected with the greater percent of organic content near the outfall, the depth of the discontinuity was much shallower near the outfall than at the site unexposed to effluent (Table 2, Figure 5).
- Results for contaminants and metals in sediments were compared to Sediment Quality Guidelines for Florida coastal waters (MacDonald, 1994). Hydrocarbons were detected at the two sites nearest the outfall (Site 1 and Site 2, Table 3). Benzo(a)anthracene, benzo(a) pyrene, benzo(b)fluoranthene, chrysene, fluoranthene and pyrene were detected at Site 1 and benzo(b)fluoranthene was detected at Site 2 at levels above the MDL but below the PQL , which exceeded the Threshold Effects Level (TEL). TEL values are the sediment content of a contaminant that has been associated with toxic effects in 15% of toxicity test data used to generate the Florida Sediment Quality Guidelines. Chromium III, lead, and nickel were detected above the PQL in the sediment samples at all sites. Silver was detected between the MDL and PQL at Sites 1 and 2 but undetected at Sites 3 and 4. Cadmium was detected between the MDL and PQL at all sites. Copper was detected above the PQL at Sites 1 and 2 and between the MDL and PQL at Sites 3 and 4. Chromium III was detected in the core blank (1.4 µg/L). Sediment metal content decreased with increasing distance from the outfall, but all sediment metal concentrations were below the corresponding TELs.
- Quantitative measures of benthic macroinvertebrate assemblages from ponar samples, such as number of taxa, dominant taxa and number of individuals, changed with increasing distance from the outfall (Table 4, Appendices H-1 and H-2). The changes reflect observed and measured differences in substrate composition along the effluent exposure gradient. There was a clear shift in the dominant taxa from oligochaetes at Sites 1 and 2 to amphipods at Sites 3 and 4. The number of taxa at Sites 1 and 2 (27 and 37, respectively) was 2 to 3 times greater than at Sites 3 and 4 (14 and 11, respectively). Site 2, which was not directly in front of the effluent and yet still under its influence, had the greatest number of taxa

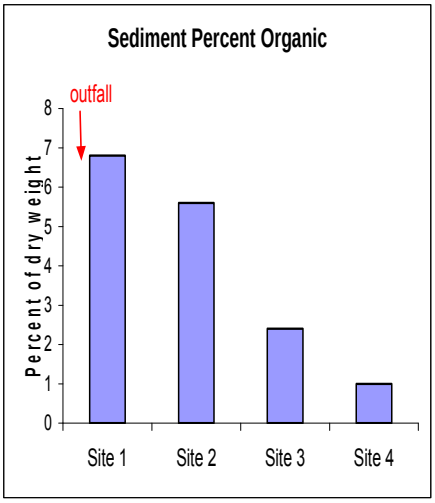


Figure 4. Sediment percent organic for four sampling sites at St. Augustine WWTP #1, November 28, 2007.

Table 3. Sediment Data for St. Augustine WWTP #1

St. Augustine WWTP #1	Sediment Quality Assessment Guidelines		Site 1	Site 2	Site 3	Site 4
	TEL	PEL				
Exposure to effluent						
Percent effluent in overlying site water #	-	-	36%	16%	4%	0%
Particle Size Distribution (percent volume < 2mm)						
< 0.063 mm	-	-	46.7	34	17.7	4.36 A
0.063 - 0.125 mm	-	-	20.8	21.9	21.1	8.98 A
0.125 - 0.25 mm	-	-	24.2	32.9	55.7	71 A
0.25 - 0.5 mm	-	-	5.1	7.06	4.21	14.8 A
0.5 - 2.0 mm	-	-	3.13	4.11	1.24	0.98 A
> 2.0 mm (percent dry weight)	-	-	7	1 K	1 K	1 AK
Organic content and depth of the discontinuity layer						
Organic Content (percent dry weight)	-	-	6.8	5.6	2.4	1
Depth of discontinuity layer in mm (N)	-	-	21.7 (3)	8.3 (3)	42.3 (3)	121.7 (3)
Organic Constituents (µg/kg)						
Benzo(a)anthracene	74.8	693	150 I *	120 U	94 U	130 U
Benzo(a)pyrene	88.8	763	190 I *	120 U	94 U	130 U
Benzo(b)fluoranthene	-	-	190 I *	130 I *	94 U	130 U
Chrysene	108	846	150 I *	120 U	94 U	130 U
Fluoranthene	113	1494	150 IJ *	120 UJ	94 UJ	130 UJ
Pyrene	153	1398	250 I *	120 U	94 U	130 U
Metals (mg/kg)						
Cadmium	0.676	4.21	0.11 I	0.095 I	0.079 I	0.048 I
Chromium III	52.3	160	16.7 f	13.5 f	5.8 f	7.9 f
Copper	18.7	108	5.3	4.4	1.4 I	1.7 I
Lead	30.2	112	7.97	6.39	2.83	4.12
Nickel	15.9	42.8	3.98	3.31	1.19	1.77
Silver	0.733	1.77	0.074 I	0.061 I	0.046 U	0.042 U

Sediment Quality Assessment Guidlines (MacDonald et al. 1984): TEL = Threshold Effects Level; PEL = Probable Effects Level
* Exceed the threshold effects level from the Sediment Quality Assessment Guidlines (MacDonald et al. 1984).
# - calculation based on 2.65 MGD effluent flow on 11/28/07
f - Chromium detected at 1.4 I µg/L in core blank
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
J - Estimated value
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

and individuals. It is not surprising that tolerant oligochaetes and a greater percentage of surface and suspension feeders would be prevalent in the fine organic sediments nearer to the higher nutrient input from the outfall. Despite compositing 5 replicate samples, the number of individuals collected at Sites 3 and 4 (49 and 23, respectively) were 5 to 20 times fewer than at Sites 1 and 2 (233 and 449, respectively). Shannon Weaver diversity scores calculated on samples with fewer than 300 individuals are prone to negative bias and therefore, although presented in Table 4, will not be used in this inspection for site evaluation purposes.

Summary

As demonstrated with the rhodamine dye, the break in the effluent pipe observed in the FDEP inspection 5 years ago (February 2003) and claimed to have been repaired by December 2, 2003 (Wastewater Compliance and Enforcement Tracking system) still exists and effluent is being released into the adjacent salt marsh. The observable effect of effluent on the biological community may be partially masked by the reduction in effluent exposure due to the pipe break. The effluent may have biological effects on the adjacent salt marsh that were not measured in this study. Repair to the damaged effluent pipe should be a priority for the facility.

Effluent total residual chlorine exceeded both the Class III Marine Water Quality Criteria (62-302.530 (18) F.A.C.) and permit limit (≤ 0.01 mg/L) in three separate effluent samples taken on November 26, 2007. This result in conjunction with DMR

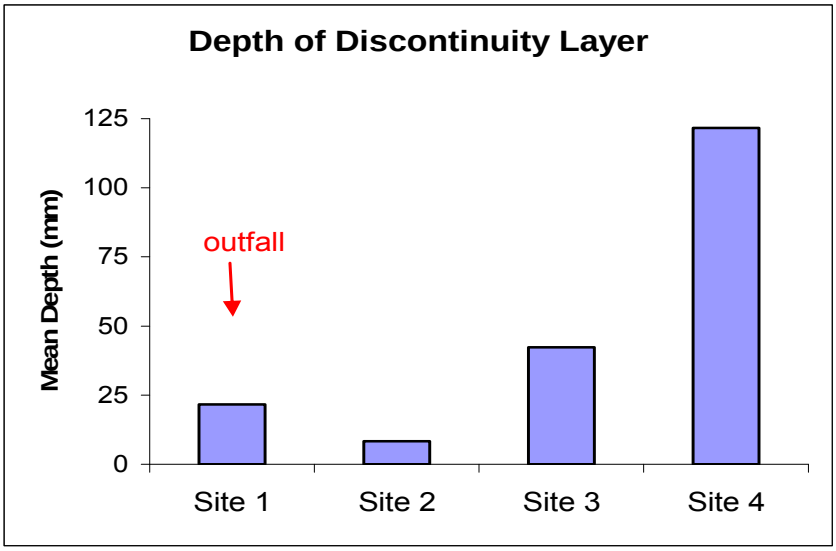


Figure 5. Mean depth of discontinuity layer for four sampling sites at St. Augustine WWTP #1, November 28, 2007.

data indicates that closer attention to total residual chlorine may be warranted.

Effluent AGP results were 22 times greater than the "problem" threshold for marine receiving waters, and effluent nutrient levels were elevated compared to the receiving water. There was no detectable effect of the effluent on nutrient concentration in the receiving water as indicated by the low level of nutrients and undetected AGP at all four Sites; the effluent is diluted quickly in the relatively large Matanzas River. Chlorophyll *a* was detected in the receiving waters but there was no discernable gradient from the effluent.

Sediments nearest the outfall had a greater percent organic content, greater percentage of both small and large particle sizes, an anoxic zone closer to the surface and greater metal content than sediments farther away from the outfall. Hydrocarbons were detected in the sediment at the site closest to the end of the outfall pipe. There is no indication of degradation of biological condition attributable to the facility's effluent despite presence of organic constituents and higher metal content in sediments nearer the outfall. Noticeable shifts in the invertebrate community composition are most likely related to differences in sediment percent organic content and particle size along the effluent gradient.

Literature Cited

American Public Health Association (APHA). 1992. Standard methods for the examination of water and wastewater. 18th edition.

Barbour, M. T., J. Gerritsen, G. E. Griffith, R. Frydenborg, E. McCarron, J. S. White and M. L. Bastian. 1996a. A framework for biological criteria for Florida streams using benthic macroinvertebrates. J. N. Am. Benthol. Soc. 15(2): 185-211.

Barbour, M. T., J. Gerritsen, and J. S. White. 1996b. Development of the Stream Condition Index for Florida. Prepared for the Florida Department of Environmental Protection. 105 p.

Barbour, M. T. and J. B. Stribling. 1994. A technique for assessing stream habitat structure. In: Proceedings of Riparian Ecosystems in the Humid United States: Functions and Values. U. S. Dept. Agriculture. 15-18 March 1993, Atlanta, Ga. 22 pp.

Beck, W. M. Jr. 1954. Studies in stream pollution biology 1. A simplified ecological classification of organisms. Quart. J. Fla. Acad. Sci. 17(4): 211-227.

EA Engineering, Science, and Technology and Tetra Tech, Inc. 1994. Bioassessment for the nonpoint source program (draft). Prepared for the Florida Department of Environmental Protection. Unpaginated.

FDEP. 1994. Lake bioassessments for the determination of nonpoint source impairment in Florida. Florida Department of Environmental Protection, Biology Section, Tallahassee, Fla. 73 p.

MacDonald, D. D. 1994. Approach to the assessment of sediment quality in Florida coastal waters. Volume 1. Development and evaluation of sediment quality assessment guidelines. Report to Florida Department of Environmental Protection, Office of Water Policy. 126 pp.

Magurran, A. E. 1988. Ecological diversity and its measurement. Princeton University Press, Princeton, New Jersey.

Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Plafkin, J. L., M. T. Barbour, K. D. Porter, S. K. Gross and R. M. Hughes. 1989. Rapid bioassessment protocols for use in streams and rivers: Benthic macroinvertebrates and fish. U. S.

EPA, Office of Water Regulations and Standards, Washington D.C., EPA 440-4-89-001

Raschke, R. L. and D. A. Schultz. 1987. The use of the algal growth potential test for data assessment. J. Wat. Poll. Cont. Fed. 59(4): 222-227.

Ross, L. T. 1990. Methods for aquatic biology. Florida Department of Environmental Regulation Technical Series 10(1): 1-47.

Sokal, R. R. and F. J. Rohlf. 1995. Biometry, Third edition. W. H. Freeman and Company, New York.

Stevenson, R. J. and L. L. Bahls. 1999. Periphyton protocols. Pp. 6.1-6.22 in: Rapid bioassessment protocols for use in wadeable streams and rivers. 2nd edition. By: M. T. Barbour, J. Gerritsen, B. D. Snyder and J. B. Stribling. EPA 841-B-99-002. U. S. Environmental Protection Agency, Office of Water, Washington, D. C.

Wallace, J. B., J. W. Grubaugh and M. R. Whiles. 1996. Biotic indices and stream ecosystem processes: results from an experimental study. Ecol. Appl. 6 (1): 140-151.

Weber, C. I. 1993. Methods for measuring the acute toxicity of effluents to freshwater and marine organisms. 4th edition. EPA/600/4-90/027. U. S. EPA, Cincinnati, Ohio. 216 pp.

USEPA 2002. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. 5th Edition. EPA-821-R-02-012

Table 4. Macroinvertebrate Petite Ponar Samples - Quantitative.

St. Augustine WWTP #1	Site 1	Site 2	Site 3	Site 4
Exposure to effluent				
Percent effluent in overlying site water #	36%	16%	4%	0%
Summary Statistics				
Shannon-Weaver Diversity	2.97 *	3.20	3.43 *	2.93 *
Number of Taxa	27	37	14	11
Percent Dominant Taxon	45.0	35.2	20.3	39.1
Dominant Taxon Name	Tubificidae (Oligochaeta)	Tubificidae (Oligochaeta)	*Americhelidium americanum* (Amphipoda)	*Rhepoxynius* sp. (Amphipoda)
Number of samples/site	5	5	5	5
Total Number of Individuals (counted)	233	449	49	23
Community Composition: Percent of total				
Amphipoda	2.6	8.9	38.6	52.2
Anthozoa	0.0	0.2	2.0	0.0
Bivalvia	9.9	16.0	10.2	8.7
Chaetognatha	0.4	0.0	0.0	8.7
Echinodermata	0.0	0.9	0.0	0.0
Gastropoda	3.0	4.0	0.0	0.0
Isopoda	0.0	0.0	2.1	0.0
Mysidacea	0.9	0.0	0.0	0.0
Nemertea	0.9	3.6	2.0	4.3
Oligochaeta	45.0	35.2	16.3	4.4
Polychaeta	36.5	30.1	28.6	21.8
Other **	0.8	1.1	0.1	0.0
Functional Feeding Groups: Percent of total				
Browser-Grazers	1.1	0.1	0.0	4.4
Burrowing Deposit Feeders	54.9	54.3	28.5	8.8
Predators	8.2	5.1	6.2	17.4
Scavengers	1.5	0.8	0.0	4.4
Scrapers	2.6	2.8	0.0	0.0
Surface Deposit Feeders	11.0	6.0	9.2	4.3
Suspension Feeders	20.4	20.7	15.3	17.3
Unknown	0.0	9.6	40.7	43.4

- calculation based on 2.65 MGD effluent flow on 11/28/07

* - Shannon Weaver Diversity scores calculated on samples with < 300 individuals have the potential for negative bias (lower diversity scores compared to sites with more individuals).

** - includes Diptera, Hydrozoa, Platyhelminthes, Porifera, Scaphopoda and Sipuncula.

Appendices

- Appendix A. Map of facility
- Appendix B. Facility summary
- Appendix C. Measurements and data interpretation
- Appendix D. Chain of Custody documents
- Appendix E. Chemical analyses of effluent and receiving water.
- Appendix F. Additional physical, chemical, toxicological and microbiological results
- Appendix G. Physical/Chemical field sheets
- Appendix H-1. Ponar samples: Taxa list and macroinvertebrate density (average number of individuals per m^2)
- Appendix H-2. Ponar samples: Taxa list and total number of macroinvertebrates (counted)

Appendix A

Map of St. Augustine WWTP #1





Appendix B

Facility Summary

State of Florida
Department of Environmental Protection
Facility Introduction

The facility consists of a 4.950 MGD annual average daily flow (AADF) permitted capacity complete mix activated sludge wastewater treatment facility consisting of two influent screens, one grit removal unit. two 1,224.000 gallon loop reactor aeration basins, two 7850 ft^2 secondary clarifiers, two 81,530 gallon chlorine contact chambers. two 163.000 gallon post aeration basins. two 360,000 gallon aerobic digesters, and two 200 GPM belt presses dewaterings. Wastewater residuals are aerobically treated to meet class B stabilization requirements, dewatered and land applied.

DISPOSAL:

Surface Water Discharge: An existing 4.950 MGD AADF permitted discharge to Matanzas River (Class III marine waters) at Discharge Location D-001, which is approximately 150 feet from shore, and at a depth of approximately 3.5 feet. The point of discharge is located approximately at latitude 29 ° 51' 57" N, longitude 81 ° 18' 19" W.

Onsite Reuse: 0.3 MGD AADF permitted onsite reuse for wash down, water supply to treatment units and irrigation as well as an adjacent truck washing facility.

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

Facility Name (as it appears on permit): St. Augustine WWTF #1		**Former Names:**
Physical Address: 501 Riberia Street St. Augustine, Florida 32084	**NPDES Permit No.:** FL0021938 **Expiration Date:** September 14, 2008	**Prepared By:** Kathleen H. Gerard
County: St. Johns	**District:** Northeast District	**Facility Type:** Domestic Waste (Major)

Function of Facility: Wastewater treatment

Sampling Location (actual permit designation of permitted sampling point):

Monitoring Location Site Number	Description of Monitoring Location
EFA-1	Effluent following disinfection but prior to dechlorination
EFD-1	Effluent following dechlorination
CAL-1	Calculated values

Monitoring Location Site Number For Matanzas River	Storet Number	Description of Monitoring Location
SWU-1	27010160	North side of Mickler O'Connel Bridge, center channel
SWU-2	27010153	The facility point of discharge and the center of the channel.
SWD-1	27010161	Channel marker # 12.

Description of permitted outfall for surface water: Discharge location D-001, which is approximately 150 feet from shore, and at a depth of approximately 3.5 feet. The point of discharge is located approximately at latitude 29 degrees 51 minutes and 57 seconds N. longitude 81 degrees 18 minutes 19 seconds W.
The onsite reuse is: 0.3 MGD AADF permitted onsite reuse for wash down water supply to treatment units and irrigation as well as from truck wash down at the adjacent site.

Description of treatment process (if multiple discharge points, include a map or diagram of facility):

A 4.950 MGD annual average daily flow (AADF) permitted capacity complete mix activated sludge wastewater treatment facility consisting of two influent screens, one grit removal unit, two 1,224,000 gallon loop reactor aeration basins, two 7850 ft^2 secondary clarifiers, two 81,530 gallon chlorine contact chambers, two 163,000 gallon post aeration basins, two 360,000 gallon aerobic digesters, and two 200 GPM belt presses dewatering. Wastewater residuals are aerobically treated to meet class B stabilization requirements, dewatered and land applied.

Receiving Waters: Matanzas River	**Classification (indicate whether fresh or marine):** Class III marine waters
Temperature (C):	**Design Flow:** 4.950 mgd
pH (SU):	**Mean Flow (for previous 12 months):** 3.982 mgd
Conductivity (umhos/cm):	**Flow During Survey:**
Method of Chlorination Liquid sodium hypochlorite solution is used for disinfection.	**Method of Dechlorination:** Liquid sodium bisulfite feed system is used for dechlorination.
Dissolved Oxygen (mg/L):	**Total Residual Chlorine (mg/L) (after disinfection):**
Discharge is: (Continuous) Intermittent Seasonal Rainfall Dependent Other	

Toxicity Test Requirements (routine and/or additional test language test species, salinity adjustment, etc.):
Current permit (issued 09/15/03, expires 09/14/08) requires semi-annual acute screen testing for 4 grab samples with marine species at 20 ppt. Trigger into 3 additional definitives if mortality > 20% in 100% final effluent. Reports are to be sent to NED within 30 days of test termination.

Administrative or Consent Orders: Warning letter was given for the sewer system overflow that occurred during May 2007 when 76,000 gal of untreated wastewater was discharged into the street and then to storm drains leading to the San Sebastian River due to a 16-inch force main break on Orange Street.

Facility Mixing Zone Details: no mixing zone

List permit violations (DMR data) and plant upsets that occurred at the plant within the last year:
Due nitrogen violations during 2006 and prior, a minor revision was given for construction that includes removing the disc aerators installed in the two existing loop reactor aeration basins and installing new AIRE-O2 TRITON Process Aerator/Mixer Units which include 6-30 horsepower (Hp), 2-20Hp, and 2-10Hp AIRE-O2 TRITON Process Aerator/Mixer drives for fine-bubble aeration and mixing in each basin. At present, this has not been completed.

A review of the DMRs was summarized for the months of February through November 2007. One minor effluent limit for chlorine was exceeded. Also, the annual average fecal coliform was exceeded from December 2006 through March 2007.

Describe previous impact bioassessments, WQBEL's, and previous or current enforcement actions:
5th-year Bioassessment was sampled February 20, 2003, and can be found at ftp://ftp.dep.state.fl.us/pub/labs/lds/reports/2662.pdf.
During the inspection, the effluent discharge pipe was found broken. About 50% of the effluent was discharged into an adjacent salt marsh instead of the designated receiving water, the Matanzas River. The effluent was not toxic and contained no parameters above water quality standards, and the macroinvertebrates showed no degradation.

For this permit cycle, all semi-annual tests, except 2 sampling events, have shown the effluent in compliance with the limit in permit condition I.A.9.c.2. Of the 2 occasions that the tests had mortality > 20% and required additional testing per permit condition I.A.9.d., the tests passed and indicated that the toxicity had not persisted.

Discuss MOR trends to prior data; is trend improving or declining:
Fecal coliform and nitrogen violations occurred during 2006. New construction is planned that will involve plant modifications of the two existing loop reactor aeration basins and installation of a new AIRE-O2 Triton Process Aeration/Mixer Units that should reduce nutrients/nitrogen.
A review of the Discharge Monitoring Reports for 2007 does not show these violations. However, some of the parameters were put on the current permit as "Report" only.

List Effluent Limits (include additional sheets as necessary):

Parameter and Units	Limit	Describe special permit conditions and permit modifications:
Flow, in conduit or thru treatment plant (MGD)	4.95 Report	Annual Average - Maximum Monthly Average - Maximum
Percent Capacity, (TMADF/Permitted Capacity) x 100 (PERCENT)	Report	Monthly Average – Maximum
BOD, Carbonaceous 5 day, 20C (mg/L)	20.0 25.0 40.0 60.0	Annual Average - Maximum Monthly Average - Maximum Weekly Average - Maximum Single Sample - Maximum
CBOD5 % removal	85.0	Monthly Average - Minimum
pH (SU)	6.5 to 8.5	Minimum and Maximum (Range)
Coliform, Fecal (#/100mL)	200.0 200.0 400.0 800.0	Annual Average -Maximum Monthly Geo. Mean. - Maximum 90th Percentile Single Sample Max.

Parameter and Units	Limit	Describe special permit conditions and permit modifications:
Total Residual Chlorine (For Disinfection) (mg/L)	0.5	Single Sample - Minimum
Total Residual Chlorine (For Dechlorination) (mg/L)	0.01	Single Sample - Maximum
Solids, Total Suspended (mg/L)	20.0 30.0 45.0 60.0	Annual Average – Maximum Monthly Average – Maximum Weekly Average – Maximum Single Sample - Maximum
TSS % Removal	85.0	Monthly Average - Minimum
Nitrogen, Total (mg/L)	Report	Single Sample - Maximum
Nitrogen, Total Kjeldahl as N (mg/L)	14.0 17.5 21.0 28.0	Annual Average - Maximum Weekly Average - Maximum Monthly Average - Maximum Single Sample - Maximum
Oxygen, Dissolved (DO) (mg/L)	5.1	Single Sample - Minimum
Mercury, Total Recoverable (ug/L)	Report	Single Sample Max.
Ammonia, Total as N (mg/L)	Report	Single Sample - Maximum
Organic Nitrogen, Total as N (mg/L)	Report	Single Sample - Maximum
Nitrite plus Nitrate, Total 1 DET, as N (mg/L)	Report	Single Sample - Maximum
Cyanide, Total (as CN) (ug/L)	Report	Single Sample - Maximum
Phosphorus in Total Orthophosphate P (mg/L)	Report	Single Sample - Maximum
Phosphorus, Total as P (mg/L)	Report	Single Sample- Maximum
Acute Whole Effluent Toxicity		See Condition I.A.8 of the permit.
Stream Monitoring		See Condition I.A.9. of the permit

Discharge Monitoring Report - Violations

Facility ID	Facility Name	District	Facility Type	Major (M)	Outfall Type	Monitoring Date	Outfall Indicator	Parameter Code	Parameter Description	Monitoring Location Code	Data	Limit	Statistical Base	Units
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	8/31/2006	001-1	P 50060	CHLORINE, TOTAL RESIDUAL	1	0.27	0.01	MAXIMUM	MG/L
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	8/31/2006	001-1	P 74055	COLIFORM, FECAL	1	631	200	MO GEOMN	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	8/31/2006	001-1	P 74055	COLIFORM, FECAL	1	5150	800	MAXIMUM	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	8/31/2006	001-1	P 74055	COLIFORM, FECAL	Y	210	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	9/30/2006	001-1	P 74055	COLIFORM, FECAL	Y	217	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	10/31/2006	001-1	P 74055	COLIFORM, FECAL	Y	214	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	11/30/2006	001-1	P 74055	COLIFORM, FECAL	Y	224	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	12/31/2006	001-1	P 74055	COLIFORM, FECAL	Y	234	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	1/31/2007	001-1	P 74055	COLIFORM, FECAL	Y	244	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	2/28/2007	001-1	P 74055	COLIFORM, FECAL	Y	238	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	3/31/2007	001-1	P 74055	COLIFORM, FECAL	Y	228	200	ANNL AVG	#/ 100ML
FL0021938	ST AUGUSTINE STP NO 1	JA	M	M	EFFLUENT	5/31/2007	001-1	P 50060	CHLORINE, TOTAL RESIDUAL	1	2.2	0.01	MAXIMUM	MG/L

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.floridadep.org/labs/sop/index.htm and/or http://www.floridadep.org/labs/qa/index.htm .

(2) Chemical Analyses of the Effluent

The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following FDEP SOPs. A list of the analytes tested for, results, data qualifiers, the minimum detection limits and the practical quantitation limits are given in Appendix 4. The results from these analyses were compared with Water Quality Criteria (62-302 F.A.C.) and facility permit limits (Table 1, Appendix 2). Exceedances of Water Quality Criteria may be violations of specific provisions of Chapter 62-302 (F.A.C.) and/ or facility permit limits.

(3) Toxicity Bioassays

Acute screening toxicity bioassays were performed on the effluent sample using the mysid, *Americamysis bahia*, and the fish, *Menidia beryllina*, following FDEP SOPs TA07_03 and TA07_04. Failure of toxicity testing may constitute a violation of 62-302.500, 62-302.530(20), 62-302.530(61) and/or facility permit limits.

(4) Bacteriological Testing

The effluent and water from sampling sites were analyzed for the presence and concentration of fecal coliform bacteria following FDEP SOP MB1_1. High levels of fecal coliform bacteria may constitute violation of 62-302.530(6) and/or facility permit limits.

(5) Establishment of Sampling Sites

Chemical and biological comparisons were made among four sampling sites located on an effluent dilution gradient leading from near the outfall, where dilution was minimal, to an area unexposed to effluent.

Rhodamine dye was continuously injected into the effluent stream and tracked in the receiving water using a YSI 6130 Rhodamine probe installed in a YSI 6920 sonde. Rhodamine is a conservative tracer and may be used to track dilution to <1% of effluent. Background readings of fluorescence were taken to correct for interference in the water column. Dye concentration was approximately 722 ppb at the end of the discharge pipe. The dye study was conducted on 28 November 2007. Dye injection began on an outgoing tide (predicted high tide of 5.30 ft) 2 hours before low tide (predicted low tide of 0.01 ft, approximately 6 hr tide). A boat was used to track the path of the effluent plume in the Matanzas River. Weather conditions were good during collections with light winds and cloudy skies.

Sites were then established after measurement of effluent dilution in the receiving water. Because the effluent plume moved approximately parallel to the shoreline, sites were selected in the same depth of water at similar distances from the shoreline. Effluent dilution varied depending on tidal flow and was more rapid during periods of strong flow, so estimates of the exposure of sites to effluent were made based on the range of values recorded near low tide. Effluent exposure would be less at high tides. Site 1 was located approximately 1 meter in front of the outfall after the effluent entered the Matanzas River at estimated effluent exposures of 36%. Sites were established “downstream” on the ebbing tide because of similar results obtained for “upstream” and “downstream” sites established during the previous inspection on February 2003. Sites 2 and 3 were located at estimated effluent dilutions of 16% and 4%, respectively, “downstream”. Site 4 was located “downstream” where no effluent was detected in the water column during the dye study.

(6) Algal Growth Potential (AGP)

The effluent and water samples from the four sites were autoclaved, filtered (0.45μm), and inoculated with the unicellular green alga, *Dunaliella tertiolecta*. Samples were incubated for 14 days (FDEP SOP TA08_05). 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 one line of evidence for violation 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 ± 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 be a violation of 62-302.530(61) F.A.C.. Expected AGP cannot be calculated for marine samples incubated with *Dunaliella.*

(7) Sediment Sampling

Sediment cores were collected with a stainless steel core tube at all sampling sites following QA Rule SOP FS4000. Samples were analyzed for metals, organic constituents, pesticides, organic content and sediment grain size in the laboratory following FDEP SOPs.

Three cores were collected, split lengthwise and the depth of the discontinuity layer was measured to the nearest mm with a ruler. The discontinuity layer, where present, is a line at varying depths in the sediment where the sediments become black and anoxic. Where it can be measured, the discontinuity layer provides an estimate of the oxygenation depth of sediments. For example, in polluted or highly organic sediments, the discontinuity layer is usually <10 mm deep while in well-aerated sediments, it may be >100 mm.

(8) Algal Phytoplankton

Chlorophyll *a* Content: Chlorophyll *a* content is measured in both phytoplankton and periphyton samples to estimate algal biomass (FDEP SOP BB05). High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be a violation 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..

(9) Benthic Macroinvertebrate Assemblages

Methods: Benthic macroinvertebrates were collected using a petite ponar dredge following QA Rule SOP FS7450. Five replicate ponar samples were collected at each site and sieved through a 500 μm mesh. Benthic macroinvertebrates were sorted and identified to the lowest practical taxonomic level, usually species (FDEP SOP IZ06).

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 violations 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 violations 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 violations 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 violations 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 results from petite ponar samples at test and control sites constitutes a violation of 62-302.530(10) F.A.C..

(10) Statistical Comparisons

Statistical comparisons of the proportions of taxa, major groups or feeding groups were made using 95% confidence intervals on proportions. A 95% confidence interval is the range of values above and below a given proportion that has a 95% chance of containing the true proportion (Sokal and Rohlf 1995). If the 95% confidence intervals for two proportions do not overlap, then the proportion of X in sample 1 is significantly different from the proportion of X in sample 2 at $p<0.05$. A "$p<0.05$" level of significance means that there is less than a 5% chance that the true proportions in the two samples are the same. All comparisons that are labeled as significant in the text have a probability <0.05 that the proportions are the same.

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
St. Augustine WWTP #1

Requester: Michael Tanski
Field Report Prepared By: Lisa Crespo

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

Collected By: Tresa Ali / Lisa Crespo
Sampling Agency: DEP NED
Send Final Report To Melissa Long

Lab ID *	Location / Field ID	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Collection (begin)	Collection (end)	Bottle Group(s)**
	St. Augustine WWTF (#1) Final Effluent	Fresh	23.91	6.91	☐ Comp ☑ Grab; Date 11/26/07 Time 1800 Eastern Central	Date Time Eastern Central	G
					Tot Res Chlorine (mg/L) 0.02; Diss Oxygen (mg/L) 7.07; Storet Station Number		
					Sample Depth 0.7 ☑ m ☐ ft; 1.42 2722; ☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm); NPDES Number		
	Latitude o ' "	Longitude o ' "			Comments 2 bottles 83.0% DO		
	St. Augustine WWTF (#1) Final Effluent ~~Start~~	Fresh	23.89	7.09	☐ Comp ☑ Grab; Collection (begin) Date 11/26/07 Time 1200 Eastern Central	Collection (end) Date Time Eastern Central	G
					Tot Res Chlorine (mg/L) 0.04; Diss Oxygen (mg/L) ~~7.23~~ 7.10; Storet Station Number		
					Sample Depth 0.6 ☑ m ☐ ft; 1.44 2078; ☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm); NPDES Number		
	Latitude o ' "	Longitude o ' "			Comments 2 bottles 84.9%		
	St. Augustine WWTF (#1) Final Effluent	Fresh	23.85	7.20	☐ Comp ☑ Grab; Collection (begin) Date 11/26/07 Time 0600 Eastern Central	Collection (end) Date Time Eastern Central	G
					Tot Res Chlorine (mg/L) 0.15; Diss Oxygen (mg/L) 7.17; Storet Station Number		
					Sample Depth 0.6 ☑ m ☐ ft; 1.79 3411; ☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm); NPDES Number		
	Latitude o ' "	Longitude o ' "			Comments 2 bottles 85.1%		
	St Augustine WWTF #1 Final Eff	Fresh	24.26	7.17	☐ Comp ☑ Grab; Collection (begin) Date 11/27/07 Time 1200 Eastern Central	Collection (end) Date Time Eastern Central	E D
					Tot Res Chlorine (mg/L) 0.00; Diss Oxygen (mg/L) 2.54; Storet Station Number		
					Sample Depth 0.4 ☒ m ☐ ft; 1.73 3508; ☒ Salinity (PPTh) ☒ Sp Conductance (umho/cm); NPDES Number		
	Latitude o ' "	Longitude o ' "			Comments 2 bottles ~~90.2%~~ 90.5% EA ISW		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	11/26/07	FHL	Tom E	11/27/07 900				

Phosphoric Acid 100% Lot No. 1.0.

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Site E = blank

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
St. Augustine WWTP #1

Requester: Michael Tanski
Field Report Prepared By:

Customer: NE-DIST
Collected By: Ken Espy / Eesa Ali
Send Final Report To Melissa Long

Project ID: FYI5
Sampling Agency:

PMAS: 1143

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time ~~1405~~ 1250 (Eastern) Central	Date Time 1405 Eastern Central	A
	Field ID: Site 1	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L): 9.14	Storet Station Number:
	Matrix (Include type e.g. Salt, Fresh, etc): Marine	Temp (C): 19.20	pH: 8.08	Sample Depth ☒ m 0.15 ☐ ft; 34.1 → ☒ Salinity (PPTh); 51,750 → ☒ Sp Conductance (umho/cm); NPDES Number:
	Latitude: o ' "	Longitude: o ' "	Comments: nutrients pH<2, use above Info for Groups B+C	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
1	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time ~~1405~~ 1255 (Eastern) Central	Date Time 1405 Eastern Central	B
	Field ID: Site 1 Rep 1	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: o ' "	Longitude: o ' "	Comments:	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
2	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time (Eastern) Central	Date Time Eastern Central	B
	Field ID: Site 1 Rep 2	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: o ' "	Longitude: o ' "	Comments:	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
3	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time (Eastern) Central	Date Time Eastern Central	B
	Field ID: Site 1 Rep 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: o ' "	Longitude: o ' "	Comments:	

Relinquished By	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chris Lum	11/29/07						JK	11-29-07 / 9:40

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
St. Augustine WWTP #1

Requester: Michael Tanski

Field Report Prepared By:

Customer: NE-DIST

Collected By: Ken Espy / Eesa Ali

Send Final Report To Melissa Long

Project ID: FYI5

Sampling Agency:

PMAS: 1143

Lab ID * 4

Location: St. Augustine WWTP
Field ID: Site 1 Rep 4
Matrix (Include type e.g. Salt, Fresh, etc):
Temp (C):
pH:
Latitude: o ' "
Longitude: o ' "

☐ Comp ☒ Grab
Collection (begin) Date 11/28/07 Time (Eastern / 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:

Collection (end) Date Time (Eastern / Central)

Bottle Group(s):** B

Lab ID * 5

Location: St. Augustine WWTP
Field ID: Site 1 Rep 5
Matrix (Include type e.g. Salt, Fresh, etc):
Temp (C):
pH:
Latitude: o ' "
Longitude: o ' "

☐ Comp ☒ Grab
Collection (begin) Date 11/28/07 Time (Eastern / 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:

Collection (end) Date Time (Eastern / Central)

Bottle Group(s):** B

Lab ID *

Location: St. Augustine WWTP
Field ID: Site 1
Matrix (Include type e.g. Salt, Fresh, etc): Sed
Temp (C):
pH:
Latitude: o ' "
Longitude: o ' "

☐ Comp ☒ Grab
Collection (begin) Date 11/28/07 Time 1500 (Eastern / 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: Sediment particle size

Collection (end) Date Time (Eastern / Central)

Bottle Group(s):** C

Lab ID *

Location: St. Augustine WWTP
Field ID: Site 1
Matrix (Include type e.g. Salt, Fresh, etc): Sed
Temp (C):
pH:
Latitude: o ' "
Longitude: o ' "

☒ Comp ☐ Grab
Collection (begin) Date 11/28/07 Time 1505 (Eastern / 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: Sediment BNA, etc... composite

Collection (end) Date Time (Eastern / Central)

Bottle Group(s):** C

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chy Swan	11/29/07							11/29-07 / 9:40a

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
St. Augustine WWTP #1

Requester: Michael Tanski
Field Report Prepared By:

Customer: NE-DIST
Collected By: Ken Espy / Eesa Ali
Send Final Report To Melissa Long

Project ID: FYI5
Sampling Agency: Tall. / NE Dist

PMAS: 1143

Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Date 11/28/07 Time 1320 (Eastern) Central	Collection (end) Date Time 1400 Eastern Central	Bottle Group(s)**
	Field ID: Site 2		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L): 10.54	Storet Station Number	A
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C): 19.97	pH: 8.11	Sample Depth: 0.15 ☒ m ☐ ft	34.38 → ☒ Salinity (PPTh)	NPDES Number
	Latitude o ' "	Longitude o ' "			52126 → ☒ Sp Conductance (umho/cm)	
				Comments: nutrients pH<2, use above info for Groups B+C		
Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Date 11/28/07 Time 1320 (Eastern) Central	Collection (end) Date Time 1400 Eastern Central	Bottle Group(s)**
	Field ID: Site 2 Rep 1		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh)	NPDES Number
	Latitude o ' "	Longitude o ' "			☐ Sp Conductance (umho/cm)	
				Comments		
Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Date 11/28/07 Time (Eastern) Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID: Site 2 Rep 2		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh)	NPDES Number
	Latitude o ' "	Longitude o ' "			☐ Sp Conductance (umho/cm)	
				Comments		
Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Date 11/28/07 Time (Eastern) Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID: Site 2 Rep 3		Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh)	NPDES Number
	Latitude o ' "	Longitude o ' "			☐ Sp Conductance (umho/cm)	
				Comments		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chy Strum	11/29/07							11.29.07 / 940

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
t. Augustine WWTP #1

Customer: NE-DIST
Project ID: FYI5
TMAS: 1143

Requester: Michael Tanski
Collected By: Ken Espy / Eesa Ali
Sampling Agency: Tall. / NE Dist

Field Report Prepared By
Send Final Report To Melissa Long

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 2 Rep 4	☐ Comp ☒ Grab Date 11/28/07 Time Eastern Central	Date Time Eastern Central	B
	Matrix (Include type e.g. Salt, Fresh, etc) / Temp (C) / pH	Tot Res Chlorine (mg/L) / Diss Oxygen (mg/L)	Storet Station Number	
	Latitude o ' " / Longitude o ' "	Sample Depth ☐ m ☐ ft ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
		Comments		
	St. Augustine WWTP Field ID: Site 2 Rep 5	☐ Comp ☒ Grab Date 11/28/07 Time Eastern Central	Date Time Eastern Central	B
	Matrix (Include type e.g. Salt, Fresh, etc) / Temp (C) / pH	Tot Res Chlorine (mg/L) / Diss Oxygen (mg/L)	Storet Station Number	
	Latitude o ' " / Longitude o ' "	Sample Depth ☐ m ☐ ft ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
		Comments		
	St. Augustine WWTP Field ID: Site-2	☐ Comp ☒ Grab Date 11/28/07 Time 1530 Eastern Central	Date Time Eastern Central	C
	Matrix (Include type e.g. Salt, Fresh, etc) / Temp (C) / pH	Tot Res Chlorine (mg/L) / Diss Oxygen (mg/L)	Storet Station Number	
	Latitude o ' " / Longitude o ' "	Sample Depth ☐ m ☐ ft ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
		Comments: sediment particle size		
	St. Augustine WWTP Field ID: Site 2	☒ Comp ☐ Grab Date 11/28/07 Time 1535 Eastern Central	Date Time Eastern Central	C
	Matrix (Include type e.g. Salt, Fresh, etc) / Temp (C) / pH	Tot Res Chlorine (mg/L) / Diss Oxygen (mg/L)	Storet Station Number	
	Latitude o ' " / Longitude o ' "	Sample Depth ☐ m ☐ ft ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
		Comments: sediment BNA, etc... composite		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chris Hamm	11/29/07							11:29:07 / 9:20am

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
t. Augustine WWTP #1

Customer: NE-DIST
Project ID: FYI5
DMAS: 1143

Requester: Michael Tanski
Collected By: Ken Espy / Eesa Ali
Sampling Agency: Tall. / NE Dist

Field Report Prepared By:
Send Final Report To Melissa Long

Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Eastern Date 11/28/07 Time 1347 Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID: Site 3	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L): 10.08	Storet Station Number	A
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C): 19.86	pH: 8.13	Sample Depth ☒ m 0.15 ☐ ft	34.45 → ☒ Salinity (PPTh) 52232 → ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' "	Longitude o ' "	Comments: nutrients pH<2, use above info for Groups B+C	
Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Eastern Date 11/28/07 Time 1347 Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID: Site 3 Rep1	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' "	Longitude o ' "	Comments	
Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Eastern Date 11/28/07 Time Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID: Site 3 Rep2	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' "	Longitude o ' "	Comments	
Lab ID *	Location: St. Augustine WWTP	☐ Comp ☒ Grab	Collection (begin) Eastern Date 11/28/07 Time Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID: Site 3 Rep3	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude o ' "	Longitude o ' "	Comments	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chuy Arma	11/29/07							11-29-07

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
t. Augustine WWTP #1

Requester: Michael Tanski
Field Report Prepared By:

Customer: NE-DIST
Collected By: Ken Espy / Eesa Ali
Send Final Report To Melissa Long

Project ID: FYI5
Sampling Agency: Tall. / NE Dist
MAS: 1143

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 3 Rep 4	☐ Comp ☒ Grab	Date 11/28/07 Time		B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)
	Latitude o ' "	Longitude o ' "		Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
				Storet Station Number	NPDES Number
				Comments	

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 3 Rep 5	☐ Comp ☒ Grab	Date 11/28/07 Time		B
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)
	Latitude o ' "	Longitude o ' "		Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
				Storet Station Number	NPDES Number
				Comments	

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 3	☐ Comp ☒ Grab	Date 11/28/07 Time 1610		C
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)
	Latitude o ' "	Longitude o ' "		Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
				Storet Station Number	NPDES Number
				Comments: Sediment particle size	

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 3	☒ Comp ☐ Grab	Date 11/28/07 Time 1615		C
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)
	Latitude o ' "	Longitude o ' "		Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)
				Storet Station Number	NPDES Number
				Comments: sediment BNA, etc.... composite	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chuy Hann	11/29/07							11-29-07 / 9:40a

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
t. Augustine WWTP #1

Customer: NE-DIST
Project ID: FYI5
TMAS: 1143

Requester: Michael Tanski
Collected By: Ken Espy / Eesa Ali
Sampling Agency: Tall. / NE Dist

Field Report Prepared By:
Send Final Report To Melissa Long

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time 1330 Central	Date Time Central	A
	Field ID: Site 4	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L): 9.64	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C): 19.82	pH: 8.10	Sample Depth ☒ m 0.15 ☐ ft
				34.51 → ☒ Salinity (PPTh)
				52304 → ☒ Sp Conductance (umho/cm)
				NPDES Number
	Latitude o ' "	Longitude o ' "	Comments: nutrients pH < 2, use above info for Groups B + C	

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time 1330 Central	Date Time Central	B
	Field ID: Site 4 Rep1	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 o ' "	Longitude o ' "	Comments	

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time Central	Date Time Central	B
	Field ID: Site 4 Rep2	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 o ' "	Longitude o ' "	Comments	

Lab ID *	Location	Collection (begin) Eastern	Collection (end) Eastern	Bottle Group(s)**
	St. Augustine WWTP	☐ Comp ☒ Grab Date 11/28/07 Time Central	Date Time Central	B
	Field ID: Site 4 Rep3	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 o ' "	Longitude o ' "	Comments	

Relinquished By	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Cheryl Swan	11/29/07							11-28-07 / 9:40a

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
t. Augustine WWTP #1

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

Requester: Michael Tanski
Collected By: Ken Espy / Eesa Ali
Sampling Agency: Tall. / NE Dist

Field Report Prepared By:
Send Final Report To Melissa Long

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time (Eastern/Central)	Collection (end) Date Time (Eastern/Central)	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 4 Rep 4 Matrix (Include type e.g. Salt, Fresh, etc): Temp (C): pH: Latitude: o ' " Longitude: o ' "	☐ Comp ☒ Grab	11/28/07 Time Eastern Central	Date Time Eastern Central	B
	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:				
Lab ID *	Location	Comp / Grab	Collection (begin) Date Time (Eastern/Central)	Collection (end) Date Time (Eastern/Central)	Bottle Group(s)**
	St. Augustine. WWTP Field ID: Site 4 Rep 5 Matrix (Include type e.g. Salt, Fresh, etc): Temp (C): pH: Latitude: o ' " Longitude: o ' "	☐ Comp ☒ Grab	11/28/07 Time Eastern Central	Date Time Eastern Central	B
	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:				
Lab ID *	Location	Comp / Grab	Collection (begin) Date Time (Eastern/Central)	Collection (end) Date Time (Eastern/Central)	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 4 Matrix (Include type e.g. Salt, Fresh, etc): Temp (C): pH: Latitude: o ' " Longitude: o ' "	☐ Comp ☒ Grab	11/28/07 Time 1645 Eastern Central	Date Time Eastern Central	C
	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: Sediment particle size				
Lab ID *	Location	Comp / Grab	Collection (begin) Date Time (Eastern/Central)	Collection (end) Date Time (Eastern/Central)	Bottle Group(s)**
	St. Augustine WWTP Field ID: Site 4 Matrix (Include type e.g. Salt, Fresh, etc): Temp (C): pH: Latitude: o ' " Longitude: o ' "	☒ Comp ☐ Grab	11/28/07 Time 1650 1645 Eastern Central	Date Time Eastern Central	C
	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: Sediment BNA, etc.... Composite				

Relinquished By	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chuy Jimenez	11/29/07							11-29-07 9:40AM

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-11-26-31
St. Augustine WWTP #1

Requester: Michael Tanski

Field Report Prepared By:

Customer: NE-DIST

Collected By: Ken Espy / Eesa Ali

Send Final Report To Melissa Long

Project ID: FYI5

Sampling Agency: Tall. / NE Dist.

PMAS: 1143

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	St. Augustine WWTP	☐ Comp ☒ Grab	Date 11/28/07 Time 1152 Central	Date Time Central	F
	Field ID: Core 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 o ' "	Longitude o ' "	Comments: DI water through corer		

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
		☐ Comp ☐ Grab	Date Time Central	Date Time Central	
	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 o ' "	Longitude o ' "	Comments		

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
		☐ Comp ☐ Grab	Date Time Central	Date Time Central	
	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 o ' "	Longitude o ' "	Comments		

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
		☐ Comp ☐ Grab	Date Time Central	Date Time Central	
	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 o ' "	Longitude o ' "	Comments		

Relinquished By	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Chris Jones	11/29/07							11-29-07 / 9:40

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

RQ-2007-11-26-31
St Augustine Core Blank
W-PEST-NP W-PSCL-PCB

Checked Out by Rasheda 2:00 PM

Appendix E

Chemical analysis of effluent and receiving water

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/26/07 0:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	L	LC50		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	L	LC50		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	L	LC50		
11/26/07 18:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	L	LC50		
11/26/07 0:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	L	LC50		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	L	LC50		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	L	LC50		
11/26/07 18:00	ST.AUGUSTINE	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	L	LC50		
11/26/07 12:00	ST.AUGUSTINE	Effluent	AGP/LN	Algal Growth Potential	224		mg DryWt/L	3	3
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Nickel	0.8	I	ug/L	0.25	1
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Copper	1.14		ug/L	0.25	1
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Silver	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Chromium	1	U	ug/L	1	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Lead	0.39	I	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Selenium	0.5	U	ug/L	0.5	2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Zinc	28		ug/L	5	20
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Magnesium	60.5		mg/L	0.04	0.16
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Arsenic	1.7	I	ug/L	0.5	2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Aluminum	19	I	ug/L	5	20
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Iron	64	I	ug/L	30	120
11/26/07 12:00	ST.AUGUSTINE	Effluent	Metals	Calcium	83.9		mg/L	0.075	0.3
11/26/07 12:00	ST.AUGUSTINE	Effluent	Nutrients	NO2NO3-N	6.6		mg N/L	0.04	0.1
11/26/07 12:00	ST.AUGUSTINE	Effluent	Nutrients	Kjeldahl Nitrogen	1.2		mg N/L	0.08	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Nutrients	Ammonia-N	0.04		mg N/L	0.01	0.02
11/26/07 12:00	ST.AUGUSTINE	Effluent	Nutrients	O-Phosphate-P	2		mg P/L	0.08	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Nutrients	Total-P	2.3		mg P/L	0.1	0.3
11/26/07 12:00	ST.AUGUSTINE	Effluent	Nutrients	TSS	4	U	mg/L	4	16
11/26/07 12:00	ST.AUGUSTINE	Effluent	Overflow	Oil and Grease	1.7	UV	mg/L		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Endosulfan Sulfate	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Atrazine	0.08	U	ug/L	0.08	0.32
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	DDD-p,p'	0.02	U	ug/L	0.02	0.08

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Heptachlor	0.01	U	ug/L	0.01	0.04
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Heptachlor Epoxide	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1221	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1242	0.3	U	ug/L	0.3	1.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1232	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1254	0.3	U	ug/L	0.3	1.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1260	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Aldrin	0.01	U	ug/L	0.01	0.04
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Chlordane	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Endrin	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1016	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	PCB-1248	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Alpha-BHC	0.01	U	ug/L	0.01	0.04
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	DDE-p,p'	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	DDT-p,p'	0.03	U	ug/L	0.03	0.12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Delta-BHC	0.01	U	ug/L	0.01	0.04
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Endosulfan I	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Endrin Aldehyde	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Toxaphene	0.75	U	ug/L	0.75	3
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Naled	0.8	U	ug/L	0.8	3.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Beta-BHC	0.01	U	ug/L	0.01	0.04
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Dieldrin	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Methoxychlor	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Endosulfan II	0.02	U	ug/L	0.02	0.08
11/26/07 12:00	ST.AUGUSTINE	Effluent	Pesticides	Gamma-BHC	0.01	U	ug/L	0.01	0.04
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.99	U	ug/L	0.99	4

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Diethyl phthalate	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Endosulfan II	4	U	ug/L	4	16
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Pentachlorophenol	3	UJ	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4,4'-DDT	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Acenaphthene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Aldrin	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	5	U	ug/L	5	20
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2	U	ug/L	2	7.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Phenol	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2-Nitrophenol	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	59
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	15	U	ug/L	15	59
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.99	UJ	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Dieldrin	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	2	U	ug/L	2	7.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Naphthalene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Phenanthrene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Pyrene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2-Chlorophenol	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Anthracene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	5	U	ug/L	5	20
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Nitrobenzene	2	U	ug/L	2	7.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	15	UJ	ug/L	15	59
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3	U	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2	U	ug/L	2	7.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Acenaphthylene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Fluoranthene	0.99	UJ	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	3	UJ	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Hexachloroethane	3	U	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	delta-BHC	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	gamma-BHC	1.5	U	ug/L	1.5	5.9

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4,4'-DDD	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Chrysene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Endrin aldehyde	4	U	ug/L	4	16
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Heptachlor	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	3	U	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Isophorone	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	beta-BHC	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	40	U	ug/L	40	160
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Endosulfan I	4	U	ug/L	4	16
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Endrin	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3	U	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	alpha-BHC	1.5	U	ug/L	1.5	5.9
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.9	U	ug/L	9.9	40
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Benzidine	99	U	ug/L	99	400
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3	U	ug/L	3	12
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Dimethyl phthalate	9.9	U	ug/L	9.9	40
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	Fluorene	0.99	U	ug/L	0.99	4
11/26/07 12:00	ST.AUGUSTINE	Effluent	Priority Organic Pollutants	4,4'-DDE	1.5	U	ug/L	1.5	5.9
11/26/07 0:00	ST.AUGUSTINE	Effluent	Field Parameters	Dissolved Oxygen	7.1		mg/L		
11/26/07 0:00	ST.AUGUSTINE	Effluent	Field Parameters	pH7.09					
11/26/07 0:00	ST.AUGUSTINE	Effluent	Field Parameters	Sample Depth	0.6		m		
11/26/07 0:00	ST.AUGUSTINE	Effluent	Field Parameters	Specific Conductance	2078		umhos/cm		
11/26/07 0:00	ST.AUGUSTINE	Effluent	Field Parameters	Temperature	23.89		C		
11/26/07 0:00	ST.AUGUSTINE	Effluent	Field Parameters	Total Residual Chlorine	0.04		mg/L		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Field Parameters	Dissolved Oxygen	7.17		mg/L		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Field Parameters	pH7.2					
11/26/07 6:00	ST.AUGUSTINE	Effluent	Field Parameters	Sample Depth	0.6		m		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Field Parameters	Specific Conductance	3411		umhos/cm		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Field Parameters	Temperature	23.85		C		
11/26/07 6:00	ST.AUGUSTINE	Effluent	Field Parameters	Total Residual Chlorine	0.15		mg/L		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Field Parameters	Dissolved Oxygen	7.34		mg/L		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Field Parameters	pH7.17					
11/26/07 12:00	ST.AUGUSTINE	Effluent	Field Parameters	Sample Depth	0.4		m		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Field Parameters	Specific Conductance	3308		umhos/cm		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Field Parameters	Temperature	24.26		C		
11/26/07 12:00	ST.AUGUSTINE	Effluent	Field Parameters	Total Residual Chlorine	0.08		mg/L		
11/26/07 18:00	ST.AUGUSTINE	Effluent	Field Parameters	Dissolved Oxygen	7.07		mg/L		

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/26/07 18:00	ST.AUGUSTINE	Effluent	Field Parameters	pH6.91					
11/26/07 18:00	ST.AUGUSTINE	Effluent	Field Parameters	Sample Depth	0.7		m		
11/26/07 18:00	ST.AUGUSTINE	Effluent	Field Parameters	Specific Conductance	2722		umhos/cm		
11/26/07 18:00	ST.AUGUSTINE	Effluent	Field Parameters	Temperature	23.91		C		
11/26/07 18:00	ST.AUGUSTINE	Effluent	Field Parameters	Total Residual Chlorine	0.02		mg/L		
11/28/07 12:50	ST.AUGUSTINE	SITE 1	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	4		ug/L	0.62	1.9
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.6		ug/L	0.27	0.8
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Nutrients	Total-P	0.037	I	mg P/L	0.02	0.06
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Nutrients	Ammonia-N	0.022		mg N/L	0.01	0.02
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Nutrients	NO2NO3-N	0.008	I	mg N/L	0.004	0.01
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Nutrients	Kjeldahl Nitrogen	0.4	I	mg N/L	0.16	0.4
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Nutrients	O-Phosphate-P	0.011	I	mg P/L	0.008	0.02
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Nutrients	TSS	29		mg/L	4	16
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Field Parameters	Temperature	19.2		C		
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Field Parameters	Sample Depth	0.15		m		
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Field Parameters	Dissolved Oxygen	9.14		mg/L		
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Field Parameters	Salinity	34.1		PPTh		
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Field Parameters	Specific Conductance	51750		umhos/cm		
11/28/07 12:50	ST.AUGUSTINE	SITE 1	Field Parameters	pH	8.08				
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Metals	Cadmium	0.11	I	mg/Kg	0.049	0.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Metals	Chromium	16.7		mg/Kg	0.73	2.9
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Metals	Copper	5.3		mg/Kg	0.49	2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Metals	Nickel	3.98		mg/Kg	0.24	0.98
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Metals	Lead	7.97		mg/Kg	0.24	0.98
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Metals	Silver	0.074	I	mg/Kg	0.049	0.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Methoxychlor	4	UJ	ug/Kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1254	16	U	ug/Kg	16	64
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Ametryn	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Fonofos	7.9	U	ug/kg	7.9	32
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Naled	63	UJ	ug/kg	63	250
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Norflurazon	7.9	U	ug/kg	7.9	32
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Aldrin	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Beta-BHC	1	U	ug/Kg	1	4.1
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Heptachlor Epoxide	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1260	24	UJ	ug/Kg	24	96
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Chlorpyrifos Methyl	7.9	U	ug/kg	7.9	32
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Fenamiphos	16	U	ug/kg	16	64
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Metribuzin	7.9	U	ug/kg	7.9	32
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	DDD-p,p'	1.6	U	ug/Kg	1.6	6.4
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1016	24	U	ug/Kg	24	96
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Toxaphene	60	U	ug/Kg	60	240
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Atrazine	4	U	ug/kg	4	16

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Azinphos Methyl	12	U	ug/kg	12	48
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Hexazinone	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Methamidophos	40	UJ	ug/kg	40	160
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	DDT-p,p'	2.4	UJ	ug/Kg	2.4	9.6
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Dieldrin	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Endosulfan Sulfate	1.6	U	ug/Kg	1.6	6.4
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Parathion Methyl	12	U	ug/kg	12	48
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Delta-BHC	1.6	U	ug/Kg	1.6	6.4
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Gamma-BHC	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Bromacil	16	U	ug/kg	16	64
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Malathion	12	U	ug/kg	12	48
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Metolachlor	40	U	ug/kg	40	160
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Mevinphos	16	U	ug/kg	16	64
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Chlordane	12	U	ug/Kg	12	48
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1221	16	U	ug/Kg	16	64
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Ethion	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Ethoprop	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Monocrotophos	40	U	ug/kg	40	160
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Parathion Ethyl	12	U	ug/kg	12	48
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	DDE-p,p'	1.6	U	ug/Kg	1.6	6.4
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1248	16	U	ug/Kg	16	64
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Diazinon	7.9	U	ug/kg	7.9	32
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Phorate	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Simazine	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Endosulfan II	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Endrin	4	U	ug/Kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Heptachlor	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1232	36	U	ug/Kg	36	140
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Endrin Aldehyde	1.6	U	ug/Kg	1.6	6.4
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Endosulfan I	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Alpha-BHC	0.79	U	ug/Kg	0.79	3.2
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Prometryn	12	U	ug/kg	12	48
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	PCB-1242	24	U	ug/Kg	24	96
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Alachlor	48	U	ug/kg	48	190
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Pesticides	Chlorpyrifos Ethyl	4	U	ug/kg	4	16
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2,4,6-Trichlorophenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2-Chlorophenol	430	U	ug/kg	430	1700
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Acenaphthene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Benzo(a)pyrene	190	I	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Benzo(b)fluoranthene	190	I	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Chrysene	150	I	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Dibenzo(a,h)anthracene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Dimethyl phthalate	140	U	ug/kg	140	570

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Endrin aldehyde	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Heptachlor epoxide	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Phenanthrene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2,4-Dinitrophenol	860	U	ug/kg	860	3400
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4-Chloro-3-methylphenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Di-n-butyl phthalate	860	U	ug/kg	860	3400
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Hexachlorocyclopentadiene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Pyrene	250	I	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2,4-Dinitrotoluene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4-Nitrophenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Bis(2-chloroethyl)ether	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Butyl benzyl phthalate	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Fluorene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Hexachlorobenzene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Aldrin	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Anthracene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Benzidine	3100	UJ	ug/kg	3100	12000
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Benzo(a)anthracene	150	I	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Dieldrin	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Diethyl phthalate	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Isophorone	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	N-Nitrosodimethylamine	860	UJ	ug/kg	860	3400
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Nitrobenzene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	alpha-BHC	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2,4-Dimethylphenol	860	U	ug/kg	860	3400
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2-Chloronaphthalene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2-Nitrophenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	3,3'-Dichlorobenzidine	8600	UJ	ug/kg	8600	34000
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4,4'-DDD	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4,4'-DDE	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4-Bromophenyl phenyl ether	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Acenaphthylene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	860	U	ug/kg	860	3400
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Endosulfan sulfate	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Hexachloroethane	430	U	ug/kg	430	1700
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Naphthalene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	gamma-BHC	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	4,4'-DDT	140	U	ug/kg	140	570

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Di-n-octyl phthalate	140	UJ	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Endosulfan I	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Heptachlor	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	delta-BHC	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	1,2,4-Trichlorobenzene	430	U	ug/kg	430	1700
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2,4-Dichlorophenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Benzo(g,h,i)perylene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Benzo(k)fluoranthene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Endosulfan II	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Endrin	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Phenol	140	UJ	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	beta-BHC	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	2,6-Dinitrotoluene	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Fluoranthene	150	IJ	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Hexachlorobutadiene	430	U	ug/kg	430	1700
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Priority Organic Pollutants	Pentachlorophenol	140	U	ug/kg	140	570
11/28/07 15:05	ST.AUGUSTINE	SITE 1 SED	Nutrients	% Solid	42				
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	46.7		% vol <2mm	0	0.01
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	20.8		% vol <2mm	0	0.01
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	24.2		% vol <2mm	0	0.01
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	5.1		% vol <2mm	0	0.01
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	3.13		% vol <2mm	0	0.01
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	7		%tot drywt	0	1
11/28/07 15:00	ST.AUGUSTINE	SITE 1 SED	Chlorophyll/Grain Size/BOD	Sediment % Organic	6.8		% dry wt		
11/28/07 13:20	ST.AUGUSTINE	SITE 2	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	4.6	A	ug/L	1.1	3.4
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2	A	ug/L	0.48	1.4
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Nutrients	Ammonia-N	0.019	I	mg N/L	0.01	0.02
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Nutrients	O-Phosphate-P	0.011	I	mg P/L	0.008	0.02
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Nutrients	Total-P	0.043	I	mg P/L	0.02	0.06
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Nutrients	Kjeldahl Nitrogen	0.39	I	mg N/L	0.16	0.4
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Nutrients	TSS	30		mg/L	4	16
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Nutrients	NO2NO3-N	0.009	I	mg N/L	0.004	0.01
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Field Parameters	Dissolved Oxygen	10.54		mg/L		
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Field Parameters	Temperature	19.97		C		
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Field Parameters	pH	8.11				
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Field Parameters	Specific Conductance	52126		umhos/cm		
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Field Parameters	Salinity	34.38		PPTh		
11/28/07 13:20	ST.AUGUSTINE	SITE 2	Field Parameters	Sample Depth	0.15		m		
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Metals	Copper	4.4		mg/Kg	0.38	1.5

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Metals	Chromium	13.5		mg/Kg	0.57	2.3
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Metals	Nickel	3.31		mg/Kg	0.19	0.76
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Metals	Cadmium	0.095	I	mg/Kg	0.038	0.15
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Metals	Lead	6.39		mg/Kg	0.19	0.76
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Metals	Silver	0.061	I	mg/Kg	0.038	0.15
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Ethion	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Hexazinone	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Endrin	3.4	U	ug/Kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1221	14	U	ug/Kg	14	56
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1248	14	U	ug/Kg	14	56
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Atrazine	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Bromacil	14	U	ug/kg	14	56
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Monocrotophos	34	U	ug/kg	34	140
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Parathion Methyl	10	U	ug/kg	10	40
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Prometryn	10	U	ug/kg	10	40
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Beta-BHC	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Heptachlor	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1254	14	U	ug/Kg	14	56
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Azinphos Methyl	10	U	ug/kg	10	40
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Fonofos	6.8	U	ug/kg	6.8	27
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Metolachlor	34	U	ug/kg	34	140
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Metribuzin	6.8	U	ug/kg	6.8	27
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Naled	54	UJ	ug/kg	54	220
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Alpha-BHC	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Heptachlor Epoxide	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Chlorpyrifos Ethyl	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Fenamiphos	14	U	ug/kg	14	56
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Parathion Ethyl	10	U	ug/kg	10	40
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	DDT-p,p'	2	UJ	ug/Kg	2	8
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Delta-BHC	1.4	U	ug/Kg	1.4	5.6
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Methoxychlor	3.4	UJ	ug/Kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Toxaphene	51	U	ug/Kg	51	200
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Alachlor	41	U	ug/kg	41	160
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Chlorpyrifos Methyl	6.8	U	ug/kg	6.8	27
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Ethoprop	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Malathion	10	U	ug/kg	10	40
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Mevinphos	14	U	ug/kg	14	56
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Phorate	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Dieldrin	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1232	30	U	ug/Kg	30	120
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1242	20	U	ug/Kg	20	80
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Ametryn	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Diazinon	6.8	U	ug/kg	6.8	27

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Methamidophos	34	UJ	ug/kg	34	140
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Simazine	3.4	U	ug/kg	3.4	14
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Aldrin	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Endosulfan Sulfate	1.4	U	ug/Kg	1.4	5.6
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1260	20	UJ	ug/Kg	20	80
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Norflurazon	6.8	U	ug/kg	6.8	27
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Chlordane	10	U	ug/Kg	10	40
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Endosulfan I	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Endosulfan II	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Endrin Aldehyde	1.4	U	ug/Kg	1.4	5.6
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	DDD-p,p'	1.4	U	ug/Kg	1.4	5.6
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	DDE-p,p'	1.4	U	ug/Kg	1.4	5.6
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	Gamma-BHC	0.68	U	ug/Kg	0.68	2.7
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Pesticides	PCB-1016	20	U	ug/Kg	20	80
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Endrin aldehyde	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Fluorene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Heptachlor epoxide	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Hexachlorocyclopentadiene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Pyrene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	delta-BHC	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2-Chloronaphthalene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4-Chloro-3-methylphenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Di-n-octyl phthalate	120	UJ	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Dibenzo(a,h)anthracene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Heptachlor	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Phenol	120	UJ	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	1,2,4-Trichlorobenzene	360	U	ug/kg	360	1500
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2,4-Dinitrotoluene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	3,3'-Dichlorobenzidine	7300	UJ	ug/kg	7300	29000
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Benzidine	2600	UJ	ug/kg	2600	11000
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Benzo(a)anthracene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Benzo(a)pyrene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	730	U	ug/kg	730	2900
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Endosulfan sulfate	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Fluoranthene	120	UJ	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2-Chlorophenol	360	U	ug/kg	360	1500
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Chrysene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Diethyl phthalate	120	U	ug/kg	120	490

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Endosulfan I	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Naphthalene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Nitrobenzene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	alpha-BHC	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2,4-Dichlorophenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2-Nitrophenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4-Bromophenyl phenyl ether	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Acenaphthene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Isophorone	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2,4-Dimethylphenol	730	U	ug/kg	730	2900
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2,4-Dinitrophenol	730	U	ug/kg	730	2900
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2,6-Dinitrotoluene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Anthracene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Benzo(b)fluoranthene	130	I	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Hexachlorobenzene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	N-Nitrosodimethylamine	730	UJ	ug/kg	730	2900
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Phenanthrene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	2,4,6-Trichlorophenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Acenaphthylene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Benzo(g,h,i)perylene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Benzo(k)fluoranthene	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Butyl benzyl phthalate	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Endrin	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Pentachlorophenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	beta-BHC	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4,4'-DDE	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Bis(2-chloroethyl)ether	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Di-n-butyl phthalate	730	U	ug/kg	730	2900
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Dieldrin	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Endosulfan II	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Hexachlorobutadiene	360	U	ug/kg	360	1500
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Hexachloroethane	360	U	ug/kg	360	1500
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	gamma-BHC	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4,4'-DDD	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4,4'-DDT	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	4-Nitrophenol	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Aldrin	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Priority Organic Pollutants	Dimethyl phthalate	120	U	ug/kg	120	490
11/28/07 15:35	ST.AUGUSTINE	SITE 2 SED	Nutrients	% Solid	49.3				
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	34		% vol <2mm	0	0.01

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	21.9		% vol <2mm	0	0.01
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	32.9		% vol <2mm	0	0.01
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	7.06		% vol <2mm	0	0.01
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	4.11		% vol <2mm	0	0.01
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	1	K	%tot drywt	0	1
11/28/07 15:30	ST.AUGUSTINE	SITE 2 SED	Chlorophyll/Grain Size/BOD	Sediment % Organic	5.6		% dry wt		
11/28/07 13:47	ST.AUGUSTINE	SITE 3	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.57	I	ug/L	0.3	0.89
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.4	I	ug/L	0.69	2.1
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Nutrients	Ammonia-N	0.021		mg N/L	0.01	0.02
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Nutrients	NO2NO3-N	0.007	I	mg N/L	0.004	0.01
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Nutrients	Total-P	0.056	I	mg P/L	0.02	0.06
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Nutrients	Kjeldahl Nitrogen	0.48		mg N/L	0.16	0.4
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Nutrients	TSS	51		mg/L	4	16
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Nutrients	O-Phosphate-P	0.009	I	mg P/L	0.008	0.02
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Field Parameters	Specific Conductance	52232		umhos/cm		
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Field Parameters	pH	8.13				
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Field Parameters	Sample Depth	0.15		m		
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Field Parameters	Salinity	34.45		PPTh		
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Field Parameters	Dissolved Oxygen	10.08		mg/L		
11/28/07 13:47	ST.AUGUSTINE	SITE 3	Field Parameters	Temperature	19.86		C		
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Metals	Cadmium	0.079	I	mg/Kg	0.046	0.18
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Metals	Silver	0.046	U	mg/Kg	0.046	0.17
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Metals	Nickel	1.19		mg/Kg	0.23	0.92
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Metals	Lead	2.83		mg/Kg	0.23	0.92
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Metals	Chromium	5.8		mg/Kg	0.69	2.8
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Metals	Copper	1.4	I	mg/Kg	0.46	1.8
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Atrazine	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Fenamiphos	10	U	ug/kg	10	40
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Metolachlor	26	U	ug/kg	26	100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1016	16	U	ug/Kg	16	64
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Bromacil	10	U	ug/kg	10	40
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Chlorpyrifos Ethyl	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Chlorpyrifos Methyl	5.2	U	ug/kg	5.2	21
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Metribuzin	5.2	U	ug/kg	5.2	21
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	DDE-p,p'	1	U	ug/Kg	1	4
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Heptachlor Epoxide	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1221	10	U	ug/Kg	10	40
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Diazinon	5.2	U	ug/kg	5.2	21
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Ethoprop	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Monocrotophos	26	U	ug/kg	26	100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Prometryn	7.8	U	ug/kg	7.8	31
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Endrin Aldehyde	1	U	ug/Kg	1	4

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Toxaphene	39	U	ug/Kg	39	160
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Alpha-BHC	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1232	23	U	ug/Kg	23	92
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Azinphos Methyl	7.8	U	ug/kg	7.8	31
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Malathion	7.8	U	ug/kg	7.8	31
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Mevinphos	10	U	ug/kg	10	40
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Naled	42	UJ	ug/kg	42	170
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Norflurazon	5.2	U	ug/kg	5.2	21
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Phorate	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Heptachlor	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Methoxychlor	2.6	UJ	ug/Kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1248	10	U	ug/Kg	10	40
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Ametryn	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Hexazinone	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Methamidophos	26	UJ	ug/kg	26	100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Parathion Ethyl	7.8	U	ug/kg	7.8	31
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Parathion Methyl	7.8	U	ug/kg	7.8	31
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Simazine	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Chlordane	7.8	U	ug/Kg	7.8	31
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	DDD-p,p'	1	U	ug/Kg	1	4
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	DDT-p,p'	1.6	UJ	ug/Kg	1.6	6.4
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Endosulfan II	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Gamma-BHC	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1242	16	U	ug/Kg	16	64
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1260	16	UJ	ug/Kg	16	64
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Alachlor	31	U	ug/kg	31	120
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Aldrin	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Dieldrin	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Endosulfan I	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Ethion	2.6	U	ug/kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Fonofos	5.2	U	ug/kg	5.2	21
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Beta-BHC	0.52	U	ug/Kg	0.52	2.1
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Delta-BHC	1	U	ug/Kg	1	4
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Endosulfan Sulfate	1	U	ug/Kg	1	4
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	Endrin	2.6	U	ug/Kg	2.6	10
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Pesticides	PCB-1254	10	U	ug/Kg	10	40
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Chrysene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Heptachlor epoxide	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Hexachloroethane	280	U	ug/kg	280	1100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Naphthalene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Nitrobenzene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2,4,6-Trichlorophenol	94	U	ug/kg	94	380

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2,4-Dimethylphenol	560	U	ug/kg	560	2200
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2,4-Dinitrophenol	560	U	ug/kg	560	2200
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Acenaphthene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Anthracene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Benzo(b)fluoranthene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Benzo(g,h,i)perylene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Di-n-butyl phthalate	560	U	ug/kg	560	2200
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Di-n-octyl phthalate	94	UJ	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Endosulfan I	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2-Nitrophenol	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Diethyl phthalate	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Endosulfan sulfate	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Endrin aldehyde	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Heptachlor	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Hexachlorocyclopentadiene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	gamma-BHC	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2-Chlorophenol	280	U	ug/kg	280	1100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4,4'-DDT	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4-Nitrophenol	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Acenaphthylene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	560	U	ug/kg	560	2200
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Endosulfan II	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Hexachlorobenzene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	1,2,4-Trichlorobenzene	280	U	ug/kg	280	1100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4,4'-DDD	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Aldrin	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Benzidine	2000	UJ	ug/kg	2000	8100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Benzo(a)anthracene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Butyl benzyl phthalate	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Phenol	94	UJ	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	delta-BHC	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2,6-Dinitrotoluene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	3,3'-Dichlorobenzidine	5500	UJ	ug/kg	5500	22000
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4-Chloro-3-methylphenol	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Benzo(k)fluoranthene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Dimethyl phthalate	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Endrin	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Fluoranthene	94	UJ	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Fluorene	94	U	ug/kg	94	380

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Isophorone	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	N-Nitrosodimethylamine	560	UJ	ug/kg	560	2200
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2,4-Dichlorophenol	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2-Chloronaphthalene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4,4'-DDE	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	4-Bromophenyl phenyl ether	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Dieldrin	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Hexachlorobutadiene	280	U	ug/kg	280	1100
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Pentachlorophenol	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	alpha-BHC	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	beta-BHC	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	2,4-Dinitrotoluene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Benzo(a)pyrene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Dibenzo(a,h)anthracene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Phenanthrene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Pyrene	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Priority Organic Pollutants	Bis(2-chloroethyl)ether	94	U	ug/kg	94	380
11/28/07 16:15	ST.AUGUSTINE	SITE 3 SED	Nutrients	% Solid	64				
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	17.7		% vol <2mm	0	0.01
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	21.1		% vol <2mm	0	0.01
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	55.7		% vol <2mm	0	0.01
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	4.21		% vol <2mm	0	0.01
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	1.24		% vol <2mm	0	0.01
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	1	K	%tot drywt	0	1
11/28/07 16:10	ST.AUGUSTINE	SITE 3 SED	Chlorophyll/Grain Size/BOD	Sediment % Organic	2.4		% dry wt		
11/28/07 13:30	ST.AUGUSTINE	SITE 4	AGP/LN	Algal Growth Potential	3	U	mg DryWt/L	3	3
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2.7		ug/L	0.27	0.8
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	5.3		ug/L	0.62	1.9
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Nutrients	O-Phosphate-P	0.008	I	mg P/L	0.008	0.02
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Nutrients	NO2NO3-N	0.009	I	mg N/L	0.004	0.01
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Nutrients	TSS	41		mg/L	4	16
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Nutrients	Total-P	0.045	I	mg P/L	0.02	0.06
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Nutrients	Kjeldahl Nitrogen	0.42		mg N/L	0.16	0.4
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Nutrients	Ammonia-N	0.018	I	mg N/L	0.01	0.02
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Field Parameters	Specific Conductance	52304		umhos/cm		
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Field Parameters	Salinity	34.51		PPTh		
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Field Parameters	Dissolved Oxygen	9.64		mg/L		
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Field Parameters	pH	8.1				
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Field Parameters	Temperature	19.82		C		
11/28/07 13:30	ST.AUGUSTINE	SITE 4	Field Parameters	Sample Depth	0.15		m		

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Metals	Lead	4.12		mg/Kg	0.21	0.83
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Metals	Nickel	1.77		mg/Kg	0.21	0.83
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Metals	Chromium	7.9		mg/Kg	0.62	2.5
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Metals	Copper	1.7	I	mg/Kg	0.42	1.7
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Metals	Cadmium	0.048	I	mg/Kg	0.042	0.17
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Metals	Silver	0.042	U	mg/Kg	0.042	0.18
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Ametryn	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Hexazinone	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Aldrin	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1232	32	U	ug/Kg	32	130
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1248	14	U	ug/Kg	14	56
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Chlorpyrifos Ethyl	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Mevinphos	14	U	ug/kg	14	56
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Monocrotophos	36	U	ug/kg	36	140
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Alpha-BHC	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Chlordane	11	U	ug/Kg	11	44
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Dieldrin	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Endosulfan I	1.1	U	ug/Kg	1.1	4.4
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1260	22	UJ	ug/Kg	22	88
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Bromacil	14	U	ug/kg	14	56
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Fonofos	7.2	U	ug/kg	7.2	29
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Norflurazon	7.2	U	ug/kg	7.2	29
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	DDE-p,p'	1.4	U	ug/Kg	1.4	5.6
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Endosulfan II	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Endrin Aldehyde	1.4	U	ug/Kg	1.4	5.6
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Metolachlor	36	U	ug/kg	36	140
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Naled	58	UJ	ug/kg	58	230
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Endosulfan Sulfate	1.4	U	ug/Kg	1.4	5.6
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Heptachlor	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1221	14	U	ug/Kg	14	56
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Toxaphene	54	U	ug/Kg	54	220
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Alachlor	43	U	ug/kg	43	170
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Chlorpyrifos Methyl	7.2	U	ug/kg	7.2	29
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Methamidophos	36	UJ	ug/kg	36	140
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	DDD-p,p'	1.4	U	ug/Kg	1.4	5.6
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1242	22	U	ug/Kg	22	88
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Atrazine	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Metribuzin	7.2	U	ug/kg	7.2	29
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Parathion Ethyl	11	U	ug/kg	11	44
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Parathion Methyl	11	U	ug/kg	11	44
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Prometryn	11	U	ug/kg	11	44
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Simazine	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	DDT-p,p'	2.2	UJ	ug/Kg	2.2	8.8

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Delta-BHC	1.4	U	ug/Kg	1.4	5.6
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Endrin	3.6	U	ug/Kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1254	14	U	ug/Kg	14	56
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Ethoprop	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Gamma-BHC	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Methoxychlor	3.6	UJ	ug/Kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	PCB-1016	22	U	ug/Kg	22	88
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Azinphos Methyl	11	U	ug/kg	11	44
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Diazinon	7.2	U	ug/kg	7.2	29
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Ethion	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Fenamiphos	14	U	ug/kg	14	56
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Malathion	11	U	ug/kg	11	44
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Phorate	3.6	U	ug/kg	3.6	14
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Beta-BHC	0.83	U	ug/Kg	0.83	3.3
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Pesticides	Heptachlor Epoxide	0.72	U	ug/Kg	0.72	2.9
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Endosulfan II	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Heptachlor	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Naphthalene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Phenanthrene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Pyrene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4,4'-DDD	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4,4'-DDT	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Diethyl phthalate	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Endrin	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	alpha-BHC	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2,4-Dinitrophenol	780	U	ug/kg	780	3100
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Butyl benzyl phthalate	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Di-n-butyl phthalate	780	U	ug/kg	780	3100
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Di-n-octyl phthalate	130	UJ	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Endosulfan sulfate	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Endrin aldehyde	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Fluorene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Pentachlorophenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2,4-Dichlorophenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2-Chloronaphthalene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4-Bromophenyl phenyl ether	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Anthracene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Benzidine	2700	UJ	ug/kg	2700	11000
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Isophorone	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	130	U	ug/kg	130	520

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Phenol	130	UJ	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	delta-BHC	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2,4,6-Trichlorophenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2,4-Dinitrotoluene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4,4'-DDE	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4-Nitrophenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Benzo(k)fluoranthene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	780	U	ug/kg	780	3100
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Fluoranthene	130	UJ	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Hexachloroethane	390	UJ	ug/kg	390	1600
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Nitrobenzene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	gamma-BHC	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2,4-Dimethylphenol	780	U	ug/kg	780	3100
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2-Chlorophenol	390	U	ug/kg	390	1600
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2-Nitrophenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Acenaphthylene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Benzo(b)fluoranthene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Dibenzo(a,h)anthracene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Hexachlorobenzene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Hexachlorobutadiene	390	U	ug/kg	390	1600
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	N-Nitrosodimethylamine	780	UJ	ug/kg	780	3100
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Acenaphthene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Aldrin	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Benzo(a)anthracene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Dieldrin	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Heptachlor epoxide	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Hexachlorocyclopentadiene	130	UJ	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	beta-BHC	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	2,6-Dinitrotoluene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Azobenzene/1,2-Diphenylhydrazine	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Dimethyl phthalate	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	1,2,4-Trichlorobenzene	390	U	ug/kg	390	1600
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	3,3'-Dichlorobenzidine	7800	UJ	ug/kg	7800	31000
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	4-Chloro-3-methylphenol	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Benzo(a)pyrene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Benzo(g,h,i)perylene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Bis(2-chloroethyl)ether	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Chrysene	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Priority Organic Pollutants	Endosulfan I	130	U	ug/kg	130	520
11/28/07 16:50	ST.AUGUSTINE	SITE 4 SED	Nutrients	% Solid	46.2				

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, <0.063 mm	4.36	A	% vol <2mm	0	0.01
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.063-0.125mm	8.98	A	% vol <2mm	0	0.01
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.125-0.25 mm	71	A	% vol <2mm	0	0.01
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.25-0.5 mm	14.8	A	% vol <2mm	0	0.01
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, 0.5-2.0 mm	0.98	A	% vol <2mm	0	0.01
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment Particle Size, %, >2.0 mm	1	AK	%tot drywt	0	1
11/28/07 16:45	ST.AUGUSTINE	SITE 4 SED	Chlorophyll/Grain Size/BOD	Sediment % Organic	1		% dry wt		
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Iron	30	U	ug/L	30	120
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Selenium	0.5	U	ug/L	0.5	2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Chromium	1.4	I	ug/L	1	4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Aluminum	5	U	ug/L	5	20
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Copper	0.25	U	ug/L	0.25	1
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Lead	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Silver	0.025	U	ug/L	0.025	0.1
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Arsenic	0.5	U	ug/L	0.5	2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Calcium	0.075	U	mg/L	0.075	0.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Zinc	5	U	ug/L	5	20
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Nickel	1.06		ug/L	0.25	1
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Metribuzin	0.099	U	ug/L	0.099	0.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Endrin	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Endrin Aldehyde	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Hexazinone	0.099	U	ug/L	0.099	0.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Beta-BHC	0.0099	U	ug/L	0.0099	0.04
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	DDE-p,p'	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Endosulfan I	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1016	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Endosulfan II	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Methoxychlor	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1221	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1242	0.3	U	ug/L	0.3	1.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Chlordane	0.2	U	ug/L	0.2	0.8

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	DDD-p,p'	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Heptachlor	0.0099	U	ug/L	0.0099	0.04
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1248	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Fonofos	0.099	U	ug/L	0.099	0.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Alpha-BHC	0.0099	U	ug/L	0.0099	0.04
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	DDT-p,p'	0.03	U	ug/L	0.03	0.12
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Gamma-BHC	0.0099	U	ug/L	0.0099	0.04
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1232	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Atrazine	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Heptachlor Epoxide	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Toxaphene	0.74	U	ug/L	0.74	3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Chlorpyrifos Methyl	0.099	U	ug/L	0.099	0.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Parathion Methyl	0.099	U	ug/L	0.099	0.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Delta-BHC	0.0099	U	ug/L	0.0099	0.04
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1254	0.3	U	ug/L	0.3	1.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	PCB-1260	0.2	U	ug/L	0.2	0.8
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Alachlor	0.59	U	ug/L	0.59	2.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Ethoprop	0.099	U	ug/L	0.099	0.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Naled	0.79	U	ug/L	0.79	3.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Aldrin	0.0099	U	ug/L	0.0099	0.04
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Endosulfan Sulfate	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Pesticides	Dieldrin	0.02	U	ug/L	0.02	0.08
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2-Nitrophenol	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Acenaphthylene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Endrin aldehyde	4.2	U	ug/L	4.2	17
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Anthracene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.2	UJ	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	alpha-BHC	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Benzo(a)pyrene	1.1	U	ug/L	1.1	4.2

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Benzo(b)fluoranthene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.2	U	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Endosulfan sulfate	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.2	U	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Pentachlorophenol	3.2	UJ	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	gamma-BHC	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2,4-Dinitrophenol	16	UJ	ug/L	16	63
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4,4'-DDD	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4,4'-DDE	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	63
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Benzo(g,h,i)perylene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Endosulfan I	4.2	U	ug/L	4.2	17
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Endrin	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Heptachlor	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Heptachlor epoxide	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Phenanthrene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Pyrene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	3,3'-Dichlorobenzidine	42	U	ug/L	42	170
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.1	U	ug/L	2.1	8.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Benzo(k)fluoranthene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Di-n-butyl phthalate	5.3	U	ug/L	5.3	21
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Endosulfan II	4.2	U	ug/L	4.2	17
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Fluoranthene	1.1	UJ	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Hexachloroethane	3.2	U	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.1	U	ug/L	2.1	8.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Acenaphthene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Aldrin	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	420
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Dimethyl phthalate	11	U	ug/L	11	42
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Fluorene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1	U	ug/L	2.1	8.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	42
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.2	U	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4,4'-DDT	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Benzo(a)anthracene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.2

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Chrysene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	UJ	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Hexachlorobutadiene	3.2	U	ug/L	3.2	13
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Nitrobenzene	2.1	U	ug/L	2.1	8.4
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	beta-BHC	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	16	U	ug/L	16	63
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Butyl benzyl phthalate	5.3	U	ug/L	5.3	21
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Dieldrin	1.6	U	ug/L	1.6	6.3
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	Naphthalene	1.1	U	ug/L	1.1	4.2
11/28/07 11:52	ST.AUGUSTINE	CORE BLANK	Priority Organic Pollutants	delta-BHC	1.6	U	ug/L	1.6	6.3
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Iron	30	U	ug/L	30	120
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Aluminum	5	U	ug/L	5	20
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Selenium	0.5	U	ug/L	0.5	2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Arsenic	0.5	U	ug/L	0.5	2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Chromium	1	U	ug/L	1	4
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Calcium	0.075	U	mg/L	0.075	0.3
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Silver	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Lead	0.2	U	ug/L	0.2	0.8
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Copper	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Zinc	5	U	ug/L	5	20
11/27/07 12:45	ST.AUGUSTINE	BLANK	Metals	Nickel	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
11/27/07 12:45	ST.AUGUSTINE	BLANK	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
11/27/07 12:45	ST.AUGUSTINE	BLANK	Nutrients	TSS	4	U	mg/L	4	16
11/27/07 12:45	ST.AUGUSTINE	BLANK	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
11/27/07 12:45	ST.AUGUSTINE	BLANK	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Butylate	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Toxaphene	0.93	U	ug/L	0.93	3.7
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Fenamiphos	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	DDE-p,p'	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Endrin Aldehyde	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1016	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1254	0.37	U	ug/L	0.37	1.5
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Azinphos Methyl	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Ethoprop	0.12	U	ug/L	0.12	0.48
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Dieldrin	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Methoxychlor	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1242	0.37	U	ug/L	0.37	1.5

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Metalaxyl	0.31	U	ug/L	0.31	1.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Metolachlor	0.62	U	ug/L	0.62	2.5
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Parathion Methyl	0.12	U	ug/L	0.12	0.48
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Alpha-BHC	0.012	U	ug/L	0.012	0.048
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Endosulfan II	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Endrin	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Gamma-BHC	0.012	U	ug/L	0.012	0.048
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Heptachlor Epoxide	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1248	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1260	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Atrazine	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Metribuzin	0.12	U	ug/L	0.12	0.48
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Simazine	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Fonofos	0.12	U	ug/L	0.12	0.48
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	DDT-p,p'	0.037	U	ug/L	0.037	0.15
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Delta-BHC	0.012	U	ug/L	0.012	0.048
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Endosulfan I	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Endosulfan Sulfate	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Parathion Ethyl	0.19	U	ug/L	0.19	0.76
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Aldrin	0.012	U	ug/L	0.012	0.048
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1232	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Ametryn	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Bromacil	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Chlorpyrifos Methyl	0.12	U	ug/L	0.12	0.48
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Diazinon	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Hexazinone	0.12	U	ug/L	0.12	0.48
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Malathion	0.19	U	ug/L	0.19	0.76
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Mevinphos	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Norflurazon	0.19	U	ug/L	0.19	0.76
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Phorate	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Prometryn	0.19	U	ug/L	0.19	0.76
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Beta-BHC	0.012	U	ug/L	0.012	0.048
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Heptachlor	0.012	U	ug/L	0.012	0.048
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Alachlor	0.74	U	ug/L	0.74	3
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Ethion	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Naled	0.99	U	ug/L	0.99	4
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Chlordane	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	DDD-p,p'	0.025	U	ug/L	0.025	0.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	PCB-1221	0.25	U	ug/L	0.25	1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Pesticides	Chlorpyrifos Ethyl	0.062	U	ug/L	0.062	0.25
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1	U	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	3,3'-Dichlorobenzidine	41	U	ug/L	41	160
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Benzidine	100	U	ug/L	100	410

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Endosulfan sulfate	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Endrin	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Hexachlorobutadiene	3.1	U	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Pentachlorophenol	3.1	UJ	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	beta-BHC	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Acenaphthylene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Benzo(g,h,i)perylene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.1	U	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Chrysene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Dieldrin	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Dimethyl phthalate	10	U	ug/L	10	41
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Endosulfan II	4.1	U	ug/L	4.1	16
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.1	UJ	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2-Chloronaphthalene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2-Nitrophenol	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4-Chloro-3-methylphenol	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Benzo(a)pyrene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Benzo(b)fluoranthene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	15	U	ug/L	15	62
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Butyl benzyl phthalate	5.2	U	ug/L	5.2	21
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Heptachlor	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Phenol	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2,4-Dimethylphenol	10	U	ug/L	10	41
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4,4'-DDE	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4,4'-DDT	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	62
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Benzo(k)fluoranthene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Di-n-octyl phthalate	1	UJ	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Endosulfan I	4.1	U	ug/L	4.1	16
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Fluorene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Heptachlor epoxide	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2,4,6-Trichlorophenol	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2-Chlorophenol	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Benzo(a)anthracene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Diethyl phthalate	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Hexachlorobenzene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.1	U	ug/L	2.1	8.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1	U	ug/L	2.1	8.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Pyrene	1	U	ug/L	1	4.1

Date Sampled	Station	Field ID	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2,4-Dinitrotoluene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2,6-Dinitrotoluene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4,4'-DDD	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Anthracene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Di-n-butyl phthalate	5.2	U	ug/L	5.2	21
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Endrin aldehyde	4.1	U	ug/L	4.1	16
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Fluoranthene	1	UJ	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.1	U	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Phenanthrene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	delta-BHC	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2,4-Dinitrophenol	15	UJ	ug/L	15	62
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Acenaphthene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Hexachloroethane	3.1	U	ug/L	3.1	12
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Isophorone	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Nitrobenzene	2.1	U	ug/L	2.1	8.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	alpha-BHC	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	gamma-BHC	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	2,4-Dichlorophenol	1	U	ug/L	1	4.1
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.1	U	ug/L	2.1	8.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Aldrin	1.5	U	ug/L	1.5	6.2
11/27/07 12:45	ST.AUGUSTINE	BLANK	Priority Organic Pollutants	Naphthalene	1	U	ug/L	1	4.1

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

11-25-07 → 1800 this is correct collection time, MF

~~26~~ mL ~~0600~~ mL

Facility: St. Augustine WWTF

Address: 501 Riberia St

City: St. Augustine County: St. Johns

Contact/District: Kathleen H. Gerard/NE Dist.

NPDES Permit #: FL 00 21938

LIMS Job #: TIH-2007-11-27-61 LIMS Sample #: 1065863

Lims Data Entry: 12-31-07 MF Data Entry Verification: 12.31.07 J.D.

Sample Collection: Date: 11-25-07 Time: ~~18:00~~

Hold Time Start: Date: 11-25-07 Time: ~~1800~~

(26) mL ~~1200~~ (1200) mL ← this is correct hold time mL

Sample: 1 of 4

Comments: Simple salinity adjusted from ~ 1.5 parts per thousand (ppth) to ~ 20 ppth by the addition of artificial sea salts. A salt control was prepared by diluting 20ppth artificial seawater (ASW) to ~ 1.5 ppth with well water, then salting the diluted water to ~ 20 ppth.
test performed per permit requirements MF 12-7-07

Instructions (for below): Circle appropriate wording. If yes is circled, complete blanks.

Test Type: Screen

Static / (Static Renewal) / Flow-through

Test Duration: 48 (96) Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: **Test 1:** SOP TA 07_03

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_04

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Initial sample handling:

PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration : yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~ ____bubbles/min

Salinity adjusted (Test 1): (yes) no Initial Salinity: ≈1.5 Final Salinity: 20 (Salts) Hypersaline brine

Salinity adjusted (Test 2): (yes) no Initial Salinity: ≈1.5 Final Salinity: 20 (Salts) Hypersaline brine

Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity : 50 - 100 ft. candles

Photoperiod : 16 light 8 dark

Temperature Range °C:

Incubator # 2 min 25.6 max 26.3 mean 25.9

Incubator # ____ min ____ max ____ mean ____

Room B246 min 23.8 max 25.5 mean 24.7

Investigators' Signatures

James Davis

Bob Rezac

Marshall Faircloth

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ Well Water	Salt Water (ASW) NSW Test 1	Salt Water ASW NSW Test 2	Other: Salt Ctrl	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	N/A	0.02	Hach	Rosa Ali	MF
Lab Total Residual Cl_2 (mg/L):			<0.03		<0.03	<0.03	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):			200		200	113	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	–	–	–	–	–	–	HACH	–	–
Total Ammonia (mg/L as N):			<0.034		<0.034	<0.07	DENVER	MF	BA
Salinity (ppth):			≈20		≈20	≈~~20~~ ≈1.5 BA	YSI / Mettler	JD	BA

V 2.0 4/12/05

Page 000061

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1065863 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 11-27-07 Time: 124[illegible]
Organism/Batch/Age: A.bahia/112707/ 5days Test Ended: Date 12/01-07 Time: 113[illegible]
Chamber/Test Volume: 30 / 250 ml Diluent/ Batch: ASW 1 11507
Food/Batch: YCT_____ P.sub_____ Artemia 0hr 160.07 24hr 161.07 48hr 162.07 72hr 163.07 Artemia Lot# 551-536-40
Feeding: (Prior to Test) Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	Tox 1	5	5	5	5	5	5
	B	Tox 2	5	5	5	5	5	5
	C	Tox 3	5	5	5	5	5	5
	D	Tox 4	5	5	5	5	5	5
100%	A	tox 5	5	5	5	5	5	5
	B	tox 6	5	5	5	5	5	5
	C	tox 7	5	5	4 1D	4	4	4
	D	tox 8	5	5	5	5	5	5
Salt Ctrl	A	tox 9	5	5	5	5	5	5
	B	tox 10	5	5	5	5	5	5
	C	tox 11	5	5	5	5	5	5
	D	tox 12	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 5% LC50: >100%
If Calculated: 95% CI__________ Method__________

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

PAGE V 2.1 11/01/2005

000062

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1065863 Test #: 2/2 SOP#:TA 07 04 Test Started: Date 11-27-07 Time: 1250

Organism/Batch/Age: M. beryllina /112707/ 12 days Test Ended: Date 12-1-07 Time: 1130

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 11.5.07

Food/Batch: YCT____ P.sub____ Artemia 0hr 11.26.07 24hr____ 48hr 11.28.07 72hr____ Artemia Lot# 59-536-90

Feeding: Prior to Test (Prior to Renewal) Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
ctrl	A	F1	5	5	5	5	5	5
	B	F2	5	4 1D	4	4	4	4
	C	F3	5	5	5	5	5	5
	D	F4	5	5	5	5	5	5
100%	A	F5	5	4 1D	4	4	4	4
	B	F6	5	5	5	5	5	5
	C	F7	5	5	5	5	5	5
	D	F8	5	5	5	5	5	5
Salt ctrl	A	F9	5	4 1D	4	4	4	4
	B	F10	5	5	5	5	5	5
	C	F11	5	4 1D	4	4	4	4
	D	F12	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or <100%.

% mortality in 100% sample: 5% LC50: >100%

If Calculated: 95% CI________ Method________

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

PAGE V 2.1 11/01/2005

000063

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

[redacted]

LIMS Sample # : 1065863 **Test #:** 1 of 2

TEST SOP #: TA07_03 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* (*Americamysis bahia*) *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.1	8.0	8.3	8.1	8.1
Temperature °C	24.0	24.4	24.6	24.0	24.0	24.3
Dissolved Oxygen mg/L	6.9	5.0	5.0	7.2	5.6	6.2
Conductivity µmhos (mmhos)	34.0	34.7	33.4	32.1	33.5	35.6
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	7.9	7.4	8.5	8.1	8.0
Temperature °C	24.0	24.4	24.8	24.0	24.1	24.9
Dissolved Oxygen mg/L	6.9	4.4	5.1	7.2	5.4	5.3
Conductivity µmhos (mmhos)	31.4	32.1	30.7	31.3	33.1	33.3
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration S.H Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.2	8.0	8.3	8.1	8.1
Temperature °C	24.0	24.6	24.8	24.0	24.5	24.6
Dissolved Oxygen mg/L	6.9	5.6	5.0	7.3	5.6	5.7
Conductivity µmhos (mmhos)	32.7	33.8	31.6	30.8	32.3	32.8
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1065863 **Test #:** 2 of 2

TEST SOP #: TA07_64 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* (*Menidia beryllina*) Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.3	8.3	8.4	8.2	8.2
Temperature °C	24.0	24.4	24.8	24.0	24.1	25.6
Dissolved Oxygen mg/L	7.0	6.7	7.2	7.0	6.2	6.1
Conductivity µmhos (mmhos)	① ~~32.7~~ 34.1	34.4	32.3	31.6	32.9	33.2
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments: ① transcription error. SD 11/27/07

Concentration 10%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.2	8.2	8.6	8.3	8.1
Temperature °C	24.0	24.4	24.9	24.1	24.5	25.5
Dissolved Oxygen mg/L	7.1	6.0	6.8	7.3	5.6	5.6
Conductivity µmhos (mmhos)	31.6	32.0	30.0	30.4	32.0	32.1
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration Salt Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.3	8.4	8.2	8.1
Temperature °C	24.0	24.5	24.8	24.0	24.5	25.4
Dissolved Oxygen mg/L	7.2	5.9	6.8	7.5	5.5	5.9
Conductivity µmhos (mmhos)	32.7	33.2	31.2	30.6	31.9	31.7
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

000065

V 2.0 2/24/04

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: St Augustine WWTF
Address: 501 Riberia St
City: St. Augustine **County:** St. Johns
Contact/District: Kathleen H. Gerard / NE Dist.
NPDES Permit #: FL 0021938
LIMS Job #: TIH-2007-11-27-61-02 **LIMS Sample #:** 106586
Lims Data Entry: 12-21-07 MF Data Entry Verification: 12.21.07 MF

Sample Collection: Date: 11-26-07 Time: 0:00
Hold Time Start: Date: 11-26-07 Time: ~~0:00~~ ~~0600~~ 1200 MF
Sample: 2 of 4

Comments: Sample salinity increased from ≃ 18 ppth by the addition of artificial seasalts to a salinity of ≃ 20ppth. Salt control prepared by diluting ASW to ≃ 18 ppth salinity then salted to ≃ 20ppth salinity with artificial sea salts.
Tests performed per permit requirements. MF 12.27.07

Instructions (for below): Circle appropriate wording. If yes is circled, complete blanks.

Test 1 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 1: SOP TA 07_ 03

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07_ 04

Initial sample handling:
PH adjustment: yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____
Aeration: yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min
Salinity adjusted (Test 1): (yes) no Initial Salinity: ~~18~~ 18 Final Salinity: 20 (Salts) Hypersaline brine
Salinity adjusted (Test 2): (yes) no Initial Salinity: ~~18~~ 18 Final Salinity: 20 (Salts) Hypersaline brine
Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:
Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No
Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Investigators' Signatures
James Daniels
Brent Stanley
Marshall Faircloth

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	0.04	Hach	Erica Ali	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):	116	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	—	HACH	—	—
Total Ammonia (mg/L as N):	20.017	DENVER	MF	BA
Salinity (ppth):	≃ ~~20~~ 18 BA	YSI / Mettler	JD	BA

V 2.0 4/12/05

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1065864 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 11-27-07 Time: 1300
Organism/Batch/Age: A.bahia/11.27.07/5 days Test Ended: Date 12-1-07 Time: 1145
Chamber/Test Volume: 300 / 250 ml Diluent/ Batch: ASW 11.15.07

Food/Batch: YCT_____ P.sub_____ Artemia 0hr 10.07 24hr 11.07 48hr 63.07 72hr 63.07 Artemia Lot# 95-536-90
Feeding: (Prior to Test) Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	Tox13	5	5	5	5	5	5
	B	tox14	5	5	5	5	5	5
	C	tox15	5	5	5	5	5	5
	D	tox16	5	5	5	5	5	5
100%	A	tox17	5	5	5	5	5	5
	B	tox18	5	5	5	5	5	5
	C	tox19	5	5	5	5	5	5
	D	tox20	5	5	5	5	5	5
Salt ctrl	A	tox21	5	5	5	5	5	5
	B	tox22	5	5	5	5	5	5
	C	tox23	5	5	5	5	5	5
	D	tox24	5	5	5	5	5	5
Loaded/Verified by: JD / PA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 0% LC50: >100%
If Calculated: 95% CI_________ Method_________

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

PAGE V 2.1 11/01/2005

000067

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 106584 Test #: 2/2 SOP#:TA 07 04 Test Started: Date 11-27-07 Time: 1310
Organism/Batch/Age: Mysidopsis / 11-27-07 / 12 days Test Ended: Date 12-1-07 Time: 1145
Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 11-5-07
Food/Batch: YCT____ P.sub____ Artemia 0hr 11-27-07 24hr____ 48hr 11-29-07 72hr____ Artemia Lot# SSI-536-90
Feeding: Prior to Test / Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
ctrl	A	F13	5	5	5	5	5	5
	B	F14	5	5	5	5	5	5
	C	F15	5	5	5	5	5	5
	D	F16	5	4 (D)	4	4	4	4
100%	A	F17	5	5	5	5	5	5
	B	F18	5	5	5	5	5	5
	C	F19	5	5	5	5	5	5
	D	F20	5	4+5 (D)	5	5	5	5
S.H ctrl	A	F21	5	5	5	5	5	5
	B	F22	5	5	5	5	5	5
	C	F23	5	5	5	5	5	5
	D	F24	5	4 (D)	4	4	4	4
Loaded/Verified by: JD / AA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 0% LC50: >100%
If Calculated: 95% CI_____ Method_____

Comments:

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

PAGE V 2.1 11/01/2005

000068

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 106584 **Test #:** 1 of 2

TEST SOP #: TA07_03 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* (*Americamysis bahia*) *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.1	8.0	8.3	8.1	8.1
Temperature °C	24.0	24.0	24.4	24.0	24.2	24.8
Dissolved Oxygen mg/L	7.1	5.2	4.9	7.4	5.6	5.3
Conductivity µmhos (mmhos)	33.8	36.2	33.2	31.6	34.0	33.8
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	7.9	7.9	8.5	8.2	8.1
Temperature °C	24.0	24.1	24.8	24.1	24.4	24.8
Dissolved Oxygen mg/L	7.2	4.6	5.1	7.4	5.2	5.2
Conductivity µmhos (mmhos)	32.5	33.3	31.2	31.7	32.9	33.6
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration S.H ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.1	8.2	8.1	8.4	8.1	8.1
Temperature °C	24.1	24.3	24.7	24.1	24.1	24.6
Dissolved Oxygen mg/L	7.3	5.0	5.3	7.3	5.0	5.2
Conductivity µmhos (mmhos)	32.5	33.7	31.8	30.8	32.1	33.1
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 106864 **Test #:** 2 of 2

TEST SOP #: TA07_04 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* (*Menidia beryllina*) Other:_____

Concentration ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.3	8.3	8.4	8.2	8.2
Temperature °C	24.1	24.4	24.6	24.1	24.4	25.1
Dissolved Oxygen mg/L	7.2	6.5	7.2	7.2	6.0	5.8
Conductivity µmhos (mmhos)	34.2	35.0	32.1	31.5	33.0	33.0
(initials) Measured by:	JJ	JJ	JJ	JJ	JJ	MF
(initials) Recorded by:	JJ	JJ	JJ	JJ	JJ	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.2	8.2	8.6	8.3	8.2
Temperature °C	24.1	24.4	24.6	24.1	24.5	25.0
Dissolved Oxygen mg/L	7.1	5.8	7.0	7.6	5.8	5.7
Conductivity µmhos (mmhos)	32.1	32.5	30.3	31.3	32.4	32.2
(initials) Measured by:	JJ	JJ	JJ	JJ	JJ	MF
(initials) Recorded by:	JJ	JJ	JJ	JJ	JJ	MF

Comments:

Concentration S.H ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.3	8.4	8.2	8.2
Temperature °C	24.0	24.1	24.5	24.2	24.4	25.3
Dissolved Oxygen mg/L	7.2	5.9	6.9	7.6	5.6	5.9
Conductivity µmhos (mmhos)	32.6	33.3	30.8	30.5	31.6	31.8
(initials) Measured by:	JJ	JJ	JJ	JJ	JJ	MF
(initials) Recorded by:	JJ	JJ	JJ	JJ	JJ	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: St Augustine WWTP

Address: 501 Riberia St

City: St. Augustine County: St. Johns

Contact/District: Kathleen H. Gerard / NE Dist

NPDES Permit #: FL0021938

LIMS Job #: TIH-2007-11-27-61-03 LIMS Sample #: 166565

Lims Data Entry: 12-21-07 ML Data Entry Verification: 12.31.07 JD

Sample Collection: Date: 11-26-07 Time: 0600

Hold Time Start: Date: 11-26-07 Time: ~~0600~~ 1200

Sample: 3 of 4

Comments: Sample salinity adjusted from ≃ 1.8ppth salinity to ≃ 20ppth salinity by the addition of artificial seasalts. SAH control prepared by adding seasalts (artificial) to diluted ASW to a salinity of ≃ 20ppth.

Tests performed per permit requirement. MF 11-07-07

Instructions (for below): Circle appropriate wording. If yes is circled, complete blanks.

Test 1 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 1: SOP TA 07_ 03

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07_ 04

Initial sample handling:

PH adjustment: yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration: yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min

Salinity adjusted (Test 1) (yes) no Initial Salinity: ≈1.8 Final Salinity: 20 (salts) Hypersaline brine

Salinity adjusted (Test 2) (yes) no Initial Salinity: ≈18 Final Salinity: 20 (salts) Hypersaline brine

Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Investigators' Signatures

Ben Ahrens

Marshall Frischkorn

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	0.15	Hach	Esa Ali	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):	110	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	—	HACH	—	—
Total Ammonia (mg/L as N):	<0.017	DENVER	ML	BA
Salinity (ppth):	~~20~~ ≈1.8 BA	YSI / Mettler	~~MF~~ JD	BA

V 2.0 4/12/05

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1065865 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 11-27-07 Time: 1320
Organism/Batch/Age: A.bahia/11.27.07 5days Test Ended: Date 12-1-07 Time: 1205
Chamber/Test Volume: 300 / 250 ml Diluent/ Batch: ASW 11.5.07
Food/Batch: YCT____ P.sub____ Artemia 0hr 160-07 24hr 161-07 48hr 162-07 72hr 163-07 Artemia Lot# 551-536-90
Feeding: (Prior to Test) Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	Tox25	5	5	5	5	5	5
	B	tox26	5	5	5	5	5	5
	C	tox27	5	5	5	5	5	5
	D	tox28	5	5	5	5	5	5
100%	A	tox29	5	5	5	5	5	5
	B	tox30	5	5	5	5	5	5
	C	tox31	5	5	5	5	5	5
	D	tox32	5	5	5	5	5	5
Salt Ctrl	A	tox33	5	5	5	5	5	5
	B	tox34	5	5	5	5	5	5
	C	tox35	5	5	5	5	5	5
	D	tox36	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	JJ	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 0% LC50: >100%
If Calculated: 95% CI________ Method________

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

PAGE V 2.1 11/01/2005

000072

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 106 5845 Test #: 2/2 SOP#:TA 07 04 Test Started: Date 11-27-07 Time: 1330

Organism/Batch/Age: Mysidopsis / 11.27.07 / 12 days Test Ended: Date 12-1-07 Time: 1205

Chamber/Test Volume: 100 / 500 ml Diluent/ Batch: ASW / 11.5.07

Food/Batch: YCT____ P.sub____ Artemia 0hr 11.26.07 24hr ## 48hr 11.27.07 72hr____ Artemia Lot# 951-536-50

Feeding: Prior to Test Prior to Renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	H1	5	5	5	5	5	5
	B	H2	5	5	5	5	5	5
	C	H3	5	5	5	5	5	5
	D	H4	5	5	5	5	5	5
100%	A	H5	5	4 10	4	4	4	4
	B	H6	5	5	5	5	5	5
	C	H7	5	5	5	5	5	5
	D	H8	5	5	5	5	5	5
S&H ctrl	A	H9	5	5	5	5	5	5
	B	H10	5	5	5	5	5	5
	C	H11	5	5	5	5	5	5
	D	H12	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or <100%.

% mortality in 100% sample: 5% LC50: >100%

If Calculated: 95% CI_____ Method_____

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments:

000073

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1065865 **Test #:** 1 of 2

TEST SOP #: TA07_03 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* (*Americamysis bahia*) *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.1	8.1	8.3	8.1	8.1
Temperature °C	24.0	24.0	24.2	24.0	24.0	24.8
Dissolved Oxygen mg/L	7.0	5.3	5.7	7.3	5.2	5.4
Conductivity µmhos (mmhos)	34.0	35.0	32.7	31.6	33.3	35.0
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.1	8.0	8.5	8.1	8.0
Temperature °C	24.0	24.2	24.3	24.0	24.1	25.0
Dissolved Oxygen mg/L	7.1	5.1	5.8	7.3	4.9	5.1
Conductivity µmhos (mmhos)	31.8	32.7	32.6	31.3	32.7	33.3
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration Salt Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.2	8.1	8.4	8.1	8.1
Temperature °C	24.1	24.3	24.6	24.0	24.2	25.0
Dissolved Oxygen mg/L	7.2	5.0	5.9	7.3	4.9	5.4
Conductivity µmhos (mmhos)	32.9	33.7	31.8	30.7	32.7	32.5
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						A
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						MF
(initials) Recorded by:						MF

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1065865 **Test #:** 2 of 2

TEST SOP #: TA07_04 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* (*Menidia beryllina*) Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.3	8.2	8.4	8.2	8.2
Temperature °C	24.0	24.2	24.6	24.0	24.3	25.3
Dissolved Oxygen mg/L	7.3	6.4	6.7	7.2	6.1	5.8
Conductivity µmhos (mmhos)	34.4	34.9	32.1	31.4	32.8	33.0
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration 10%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.2	8.1	8.5	8.3	8.2
Temperature °C	24.2	24.5	24.6	24.1	24.3	25.1
Dissolved Oxygen mg/L	7.2	6.0	6.4	7.5	5.5	5.8
Conductivity µmhos (mmhos)	31.6	32.2	29.9	30.9	32.0	32.0
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration S.H Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.3	8.4	8.2	8.2
Temperature °C	24.1	24.7	25.0	24.0	24.6	25.1
Dissolved Oxygen mg/L	7.7	6.0	7.1	7.6	5.4	5.7
Conductivity µmhos (mmhos)	32.8	32.9	30.9	30.7	31.8	31.5
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

000075

FDEP Biology Laboratory - Acute Screen 4/24 Bioassay Bench Sheets

Facility: St. Augustine WWTF

Address: 501 Riberia St.

City: St. Augustine **County:** St. Johns

Contact/District: Kathleen H. Gerard/NE-Dist.

NPDES Permit #: FL 0021938

LIMS Job #: TIH-2007-11-27-61-04 **LIMS Sample #:** 1065866

Lims Data Entry: 12-21-07 MF Data Entry Verification: 12.21.07 JD

Sample Collection: Date: 11-26-07 Time: 12:00

Hold Time Start: Date: 11-26-07 Time: 12:00

Sample: 4 of 4

Comments: Sample salinity increased from approximately 1.8ppth to ≃ 20ppth by the addition of artificial seasalts. SAH control prepared by adding artificial seasalts to diluted artificial seawater (to ≃ 20ppth salinity).
Test performed per permit requirements. MF 12-21-07

Instructions (for below): Circle appropriate wording. If yes is circled, complete blanks.

Test 1 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 1: SOP TA 07_ 03

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07_ 04

Initial sample handling:

PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration : (yes) no Initial DO: 10.3 mg/L Final DO: 7.3 mg/L Duration: 30 minutes Rate: ~ 100 bubbles/min

Salinity adjusted (Test 1): (yes) no Initial Salinity: ~~1.8~~ Final Salinity: 20 (Salts) Hypersaline brine

Salinity adjusted (Test 2): (yes) no Initial Salinity: ~~1.8~~ Final Salinity: 20 (Salts) Hypersaline brine

Dechlorination: yes (no) _____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: _____

~ = approximately

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Investigators' Signatures

James Daniels
Brad Fleiker
Marshall Fairchath

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	<0.02*	Hach	Esa AL	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):	109	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):	—	HACH	—	—
Total Ammonia (mg/L as N):	<0.017	DENVER	MF	BA
Salinity (ppth):	~~<20~~ ≈ 1.8	YSI / Mettler	JD	BA

V 2.0 4/12/05

* Value on field sheet was 0.00 mg/L. Have clearly (test kit (Field Lot) minimum detection limit. MF 12-21-07

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1065866 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 11-27-07 Time: 1340
Organism/Batch/Age: A.bahia/11.2707/5 days Test Ended: Date 12-2-07 Time: 1220
Chamber/Test Volume: 300 / 250 ml Diluent/ Batch: ASW / 11.5.07
Food/Batch: YCT____ P.sub____ Artemia 0hr 1/20/07 24hr 1/6/07 48hr 1/20/07 72hr 1/23/07 Artemia Lot# 951-536-90
Feeding: Prior to Test Prior to Renewal (Daily)

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	Tox37	5	5	5	5	5	5
	B	tox38	5	5	5	5	5	5
	C	tox39	5	5	5	5	5	5
	D	tox40	5	5	5	5	5	5
100%	A	tox41	5	5	5	5	5	5
	B	tox42	5	4 1D	4	4	4	4
	C	tox43	5	5	5	5	5	5
	D	tox44	5	5	5	5	5	5
Salt Ctrl	A	tox45	5	5	5	5	5	5
	B	tox46	5	5	5	5	5	5
	C	tox47	5	5	5	5	5	5
	D	tox48	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 5% LC50: >100%
If Calculated: 95% CI________ Method________

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

000077

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1065866 Test #: 2/2 SOP#:TA 07 04 Test Started: Date 11-27-07 Time: 1350

Organism/Batch/Age: Mysid/Aca/11.12.07/12 Days Test Ended: Date 12-2-07 Time: 1220

Chamber/Test Volume: 1000 / 560 ml Diluent/ Batch: ASW / 11.5.07

Food/Batch: YCT____ P.sub____ Artemia 0hr 160.07 24hr____ 48hr 162.07 72hr____ Artemia Lot# GSL 536-90

Feeding: ~~Prior to Test~~ ~~Prior to Renewal~~ Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	H13	5	5	5	5	5	5
	B	H14	5	5	5	5	5	5
	C	H15	5	5	5	5	5	5
	D	H16	5	5	5	5	5	5
100%	A	H17	5	5	5	5	5	5
	B	H18	5	5	5	5	5	5
	C	H19	5	5	5	5	5	5
	D	H20	5	5	5	5	5	5
Salt Ctrl	A	H21	5	5	5	5	5	5
	B	H22	5	5	5	5	5	5
	C	H23	5	5	5	5	5	5
	D	H24	5	5	5	5	5	5
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD	JD	JD	MF

m = missing d = dead BR/AR = Before/After Renewal

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or <100%.

% mortality in 100% sample: 0% LC50: >100%

If Calculated: 95% CI_____ Method_____

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments:

000078

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 106 5866 **Test #:** 1 of 2

TEST SOP #: TA07_03 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* (*Americamysis bahia*) *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.1	8.0	8.2	8.0	8.1
Temperature °C	24.0	24.1	24.4	24.0	24.1	24.9
Dissolved Oxygen mg/L	6.9	4.5	5.8	7.0	4.8	5.1
Conductivity µmhos (mmhos)	33.6	34.4	32.9	31.9	33.6	34.0
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.0	7.9	8.5	8.2	8.0
Temperature °C	24.0	24.3	24.6	24.1	24.5	24.7
Dissolved Oxygen mg/L	7.3	4.5	5.3	7.2	4.8	5.0
Conductivity µmhos (mmhos)	32.7	33.2	31.5	32.0	33.4	33.9
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration Sal Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.1	8.0	8.3	8.1	8.1
Temperature °C	24.0	24.0	24.7	24.2	24.0	24.8
Dissolved Oxygen mg/L	7.3	4.9	5.2	6.9	4.8	5.1
Conductivity µmhos (mmhos)	32.8	33.7	31.6	30.6	31.9	32.6
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1085866 **Test #:** 2 of 2

TEST SOP #: TA07_04 **Test Species:** *Ceriodaphnia dubia* *Cyprinella ~~leedsi~~* *Pimephales promelas* *Americamysis bahia* (*Menidia beryllina*) Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.3	8.2	8.3	8.3	8.2	8.2
Temperature °C	24.1	24.1	24.2	24.1	24.5	25.3
Dissolved Oxygen mg/L	7.2	6.7	6.5	7.2	6.1	5.7
Conductivity µmhos (~~mmhos~~)	34.2	34.2	32.5	31.4	32.8	32.9
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.5	8.3	8.2	8.6	8.3	8.2
Temperature °C	24.1	24.3	24.6	24.0	24.5	25.5
Dissolved Oxygen mg/L	7.2	6.0	6.3	7.7	5.7	5.8
Conductivity µmhos (~~mmhos~~)	32.4	32.8	30.6	31.4	32.7	33.0
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration S.H Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	8.4	8.3	8.3	8.4	8.2	8.2
Temperature °C	24.2	24.7	24.7	24.3	24.6	25.3
Dissolved Oxygen mg/L	7.3	6.0	6.2	7.6	5.8	5.8
Conductivity µmhos (~~mmhos~~)	33.0	33.2	31.1	30.4	31.7	31.7
(initials) Measured by:	JD	JD	JD	JD	JD	MF
(initials) Recorded by:	JD	JD	JD	JD	JD	MF

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

000080

STATE OF FLORIDA

DEPT. OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT

Division of Water Facilities
Technical Support
7825 Baymeadows Way,suite 200B
Jacksonville, Florida 32256

Microbiology Report

Name: St.Augustine wwtp **Survey type:** 5yi
Sample: Final effluent **Sample date:** 11/26/07

D.O.H.accred.#E32890 S.M.9222B S.M.9222D

Lab I.D.#	Site Name	Analysis Date	Time of Sample	Time of Analysis	Total colif. #cfu/100ml	code	Fecal colif. #cfu/100ml	code
073199jm	St.August.finaleffl.	11/26/2007	12:00	15:18			88	

Results for NELAP accredited tests contained in this report meet the requirements for the National Environmental Accredidation Program.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - Value reported is less than the minimum quantitation limit,
and greater than or equal to the minimum detection 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 value reported
is the minimum detection limit.
V - Analyte was detected in both sample and method blank.
Z - Colonies were too numerous to count (TNTC). # represents amnt.filtered.

SURVEY TYPE: Ambient Monitoring--Trend,Reference Stream,Reference Lake,BioReconn,Special project
Permit Compliance--5th Year,3rd Year,CSI,CEI,PAI,RI,Complaint Potable Water--Sanitary Survey,Facility Inspection

SAMPLE TYPE: Suface Water,Ground Water,Potable Water,Treated Effluent,Untreated Effluent,Sediment,Sludge,Soil

Signature Sample Results: Jeremy Parrish Date: 12/3/2007

STATE OF FLORIDA

DEPT. OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT

Division of Water Facilities
Technical Support
7825 Baymeadows Way,suite 200B
Jacksonville, Florida 32256

Microbiology Report

Name: St. Augustine wwtp outfall **Survey type:** 5YI
Sample: **Sample date:** 11/28/07

D.O.H.accred.#E32890 S.M.9222B S.M.9222D

Lab I.D.#	Site Name	Analysis Date	Time of Sample	Time of Analysis	Total colif. #cfu/100ml	code	Fecal colif. #cfu/100ml	code
073237jm	St.August.site 1	11/28/2007	12:50	16:00			24	B
073238jm	St. August.site 2	11/28/2007	13:20	16:00			12	B
073239jm	St. August.site 3	11/28/2007	13:33	16:00			8	B
073240jm	St. August. Site 4	11/28/2007	13:47	16:00			4	B

Results for NELAP accredited tests contained in this report meet the requirements for the National Environmental Accredidation Program.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - Value reported is less than the minimum quantitation limit,
and greater than or equal to the minimum detection 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 value reported
is the minimum detection limit.
V - Analyte was detected in both sample and method blank.
Z - Colonies were too numerous to count (TNTC). # represents amnt.filtered.

SURVEY TYPE: Ambient Monitoring--Trend,Reference Stream,Reference Lake,BioReconn,Special project
Permit Compliance--5th Year,3rd Year,CSI,CEI,PAI,RI,Complaint Potable Water--Sanitary Survey,Facility Inspection

SAMPLE TYPE: Suface Water,Ground Water,Potable Water,Treated Effluent,Untreated Effluent,Sediment,Sludge,Soil

Signature Sample Results: Jeremy Parrish Date: 12/3/2007

Appendix G

Habitat Assessment Field Sheets.

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
29° 52' 31.2" 81° 18' 15.5"		11/28/07	1405	Matanzas River

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	St. Johns	St. Augustine WWTP	Site 1 (End of Pipe)

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)
marsh							

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

houses

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	11:19 (AM) PM	5.30ft	:	AM PM
Low	17:42 AM (PM)	0.01 ft	:	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			
Rock or Shell Rubble				Mud/Muck/Silt		5	PON AP
Aquatic Vegetation				Other:			

Community Types
Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☑ shore grasses (spartina juncea)

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) ~~or Salinity (ppt):~~	Salinity (ppt)		Secchi (m):
Top	0.15 m	19.20	8.08	9.14	51750	34.1		
Mid-depth								
Bottom								

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:
- muddy sediment
- overcast, breezy

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

SAMPLING TEAM:	SIGNATURE	DATE:
Ken Espy, Cheryl Swanson, Eesa Ali, Stephen Nye, Pat O'Connor	Cheryl Swanson	11/28/07

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
29° 52' 31.8 81 18' 14.8		11/28/07	1400	Matanzas River

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	St. Johns	St. Augustine WWTP	Site 2

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)
marsh							

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 (hours)

High	11:19 AM/PM	5.30 ft	:	AM/PM
Low	17:42 AM/PM	0.01 ft	:	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			
Rock or Shell Rubble				Mud/Muck/Silt		5	FDNR
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☒ Shore grasses (spartina, juncus)

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) ~~or Salinity (ppt)~~:	Salinity (ppt)		Secchi (m):
Top	0.15	19.97	8.11	10.54	52126	34.38		
Mid-depth								
Bottom								

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:
- muddy sediment
- overcast, breezy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Ken Espy, Cheryl Swanson, Eesa Ali, Stephen Nye, Pat O'Connor	Cheryl Swanson	11/28/07

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

LAT/LONGS.	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
29° 52′ 37.1 81 18′ 12.9		11/28/07	1347	Matanzas River

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	St. Johns	St. Augustine WWTP	Site 3

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)
marsh							

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

houses

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	11:19	(AM) PM	5.30 ft	AM PM
Low	17:42	AM (PM)	0.01 ft	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		5	ponar
Rock or Shell Rubble				Mud/Muck/Silt			
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☒ Reef ☐ Natural beach ☐ Other: ☒ shore grasses (Spartina junceus)

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or ~~Salinity (ppt)~~:	Salinity (ppt)		Secchi (m):
Top	0.15	19.86	8.13	10.08	52232	34.45		
Mid-depth								
Bottom								

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:

- muddy sand, less shell rubble than at Site 4
- overcast, breezy

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

SAMPLING TEAM:	SIGNATURE	DATE:
Ken Espy, Cheryl Swanson Sharon Piltz, Lisa Crespo	Cheryl Swanson	11/28/07

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
29° 52' 46.5 81° 18' 13.9		11/28/07	1330	Matanzas River

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	St. Johns	St. Augustine WWTP	Site 4 (background)

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)
marsh							

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

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

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	11:19	(AM) PM	5.30 ft	AM PM
Low	17:42	AM (PM)	0.01 ft	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		5	PONAR
Rock or Shell Rubble				Mud/Muck/Silt			
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☒ Reef ☐ Natural beach ☐ Other: ☒ shore grass (spartina juncus)

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) ~~or Salinity (ppt)~~:	Salinity (ppt)		Secchi (m):
Top	0.15	19.82	8.10	9.64	52304	34.51		
Mid-depth								
Bottom								

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:

- Shell rubble, sandy
- Overcast, breezy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Ken Espy, Cheryl Swanson Sharon Piltz, Lisa Crespo	Cheryl Swanson	11/28/07

Appendix H-1

Benthic macroinvertebrates collected from ponar samples on outgoing tide downstream of the St. Augustine WWTP #1 (11/28/07). Taxa collected and density (average number of individuals/m^2) rounded to the nearest individual (n = 5 samples/site). See SOP LT 7100 sect. 4.2.1 for method on collapsing taxa.

	Site 1	Site 2	Site 3	Site 4
Annelida				
Oligochaeta				
Tubificidae	875	1317	67	8
Polychaeta				
Aglaophamus verrilli	-	8	-	-
Aricidea sp.	-	-	17	-
Armandia maculata	-	8	-	-
Cirratulidae	8	75	17	-
Cirrophorus sp.	-	-	-	8
Dasybranchus sp.	-	8	-	-
Dipolydora socialis	-	-	-	17
Lumbrineris sp.	42	-	-	-
Mediomastus ambiseta	192	683	-	-
Mediomastus sp.	-	-	33	-
Myriochele oculata	8	-	-	-
Nephtys picta	-	-	-	8
Nereididae	-	8	-	-
Notomastus sp.	-	8	-	-
Onuphidae	8	8	-	-
Paraprionospio pinnata	133	267	-	-
Sabellaria sp.	-	-	-	8
Scolelepis sp.	17	8	25	-
Sigalionidae	8	-	8	-
Sigambra tentaculata	67	-	-	-
Spio pettiboneae	-	-	17	-
Sthenolepis sp.	-	8	-	-
Streblospio benedicti	225	8	-	-
Syllidae	-	17	-	-
Terebellidae	-	8	-	-
Arthropoda				
Crustacea				
Amphipoda				
Americhelidium americanum	-	308	83	8
Ameroculodes sp. A	-	-	42	-
Ampelisca sp.	-	8	-	-
Caprellidae	8	-	-	-
Eudevenopus honduranus	-	-	-	17
Melita nitida	17	-	-	-
Podoceridae	25	-	-	-
Rhepoxynius sp.	-	17	33	75
Isopoda				
Amakusanthura magnifica	-	-	8	-
Mysidacea				
Unidentified Mysidacea	17	-	-	-

Appendix H-1 (continued)

	Site 1	Site 2	Site 3	Site 4
Arthropoda				
Insecta				
Diptera				
Goeldichironomus sp.	8	-	-	-
Chaetognatha				
Unidentified Chaetognatha	8	-	-	17
Cnidaria				
Anthozoa				
Renilla sp.	-	8	-	-
Unidentified Anthozoa	-	-	8	-
Hydrozoa				
Hydroida sp.				
Echinodermata				
Amphiuridae	-	33	-	-
Mollusca				
Bivalvia				
Abra aequalis	-	73	-	-
Mactrotoma fragilis	10	-	-	-
Mulinia lateralis	19	27	-	-
Nuculana sp.	-	27	-	-
Parastarte triquetra	-	18	-	-
Sphenia antillensis	10	-	-	-
Tellina sp.	-	454	-	-
Tellinidae	153	-	42	17
Gastropoda				
Acteocina bidentata	-	40	-	-
Acteocina canaliculata	-	13	-	-
Acteocina sp.	17	-	-	-
Haminoeidae	-	9	-	-
Nassarius acutus	-	18	-	-
Nassarius vibex	-	26	-	-
Pyramidellidae	8	18	-	-
Rictaxis punctostriatus	25	26	-	-
Triphora nigrocincta	8	-	-	-
Scaphopoda				
Dentalium sp.	-	17	-	-
Nemertea				
Unidentified Nemertea	17	133	8	8
Platyhelminthes				
Unidentified Platyhelminthes	-	8	-	-
Porifera				
Unidentified Porifera	-	8	-	-
Sipuncula				
Unidentified Sipuncula	-	8	-	-

Appendix H-2

Benthic macroinvertebrates collected in ponar samples on outgoing tide downstream of the St. Augustine WWTP #1 (11/28/07). Taxa collected and total number of individuals counted (n = 5 samples/site).

	Site 1	Site 2	Site 3	Site 4
Annelida				
Oligochaeta				
Tubificidae	105	158	8	1
Polychaeta				
Aglaophamus verrilli	-	1	-	-
Aricidea sp.	-	-	1	-
Armandia maculata	-	1	-	-
Cirratulidae	1	9	2	-
Cirrophorus sp.	-	-	-	1
Dasybranchus sp.	-	1	-	-
Dipolydora socialis	-	-	-	2
Lumbrineris sp.	5	-	-	-
Mediomastus ambiseta	4	48	-	-
Mediomastus sp.	19	34	4	-
Myriochele oculata	1	-	-	-
Nephtys picta	-	-	-	1
Nereididae	-	1	-	-
Notomastus sp.	-	1	-	-
Onuphidae	1	1	-	-
Paraonidae	-	-	1	-
Paraprionospio pinnata	16	32	-	-
Sabellaria sp.	-	-	-	1
Scolelepis sp.	2	1	3	-
Sigalionidae	1	-	1	-
Sigambra tentaculata	8	-	-	-
Spio pettiboneae	-	-	1	-
Spio sp.	-	-	1	-
Sthenolepis sp.	-	1	-	-
Streblospio benedicti	22	1	-	-
Streblospio sp.	5	-	-	-
Syllidae	-	2	-	-
Terebellidae	-	1	-	-
Arthropoda				
Crustacea				
Amphipoda				
Americhelidium americanum	-	37	10	1
Ameroculodes sp. A	-	-	5	-
Ampelisca sp.	-	1	-	-
Caprellidae	1	-	-	-
Eudevenopus honduranus	-	-	-	2
Melita nitida	2	-	-	-
Podoceridae	3	-	-	-
Rhepoxynius sp.	-	2	4	9
Isopoda				
Amakusanthura magnifica	-	-	1	-
Mysidacea				
Unidentified Mysidacea	2	-	-	-

Appendix H-2 (continued)

	Site 1	Site 2	Site 3	Site 4
Arthropoda				
Insecta				
Diptera				
Goeldichironomus sp.	1	-	-	-
Chaetognatha				
Unidentified Chaetognatha	1	-	-	2
Cnidaria				
Anthozoa				
Renilla sp.	-	1	-	-
Unidentified Anthozoa	-	-	1	-
Hydrozoa				
Hydroida sp.	1	-	-	-
Echinodermata				
Amphiuridae	-	1	-	-
Ophiurida	-	3	-	-
Mollusca				
Bivalvia				
Abra aequalis	-	7	-	-
Abra sp.	-	1	-	-
Mactrotoma fragilis	1	-	-	-
Mulinia lateralis	2	3	-	-
Nuculana sp.	-	3	-	-
Parastarte triquetra	-	2	-	-
Sphenia antillensis	1	-	-	-
Tellina sp.	-	2	-	-
Tellinidae	16	48	4	2
Unidentified Bivalvia	3	6	1	-
Gastropoda				
Acteocina bidentata	-	3	-	-
Acteocina canaliculata	-	1	-	-
Acteocina sp.	2	2	-	-
Haminoeidae	-	1	-	-
Nassarius acutus	-	2	-	-
Nassarius vibex	-	3	-	-
Pyramidellidae	1	2	-	-
Rictaxis punctostriatus	3	3	-	-
Triphora nigrocincta	1	-	-	-
Unidentified Gastropoda	-	1	-	-
Scaphopoda				
Dentalium sp.	-	2	-	-
Nemertea				
Unidentified Nemertea	2	16	1	1
Platyhelminthes				
Unidentified Platyhelminthes	-	1	-	-
Porifera				
Unidentified Porifera	-	1	-	-
Sipuncula				
Unidentified Sipuncula	-	1	-	-

The Bioassay of St. Augustine WWTP #1 effluent sampled on November 26, 2007, NPDES #FL0021938.

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 0 2 1 9 3 8 11	12 0 7 1 1 2 6	18 **B**	19 **S**	20 1

Remarks

66

The Priority Pollutants Analysis for Bioassay of St. Augustine WWTP #1 effluent sampled on November 26, 2007, NPDES #FL0021938.

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 0 2 1 9 3 8 11	12 0 7 1 1 2 6	18 **X**	19 **S**	20 1

Remarks

66

Biological Analyses of of St. Augustine WWTP #1 effluent sampled on November 28, 2007, NPDES #FL0021938.

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 0 2 1 9 3 8 11	12 0 7 1 1 2 6	18 **S**	19 **S**	20 1

Remarks

66