

Bioassays of

Wekiva Hunt Club Wastewater Treatment Facility

Seminole County

NPDES #FL0036251

Sampled August 18 and 20, 2003

March 2004

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

The Wekiva Hunt Club Wastewater Treatment Facility, 144 Ledbury, Longwood, Seminole County, Florida, NPDES #FL0036251. Effluent samples for this facility were collected on August 18 and 20, 2003.

Introduction

This activated-sludge domestic Wastewater Treatment Facility (WWTF) has a permitted capacity of a 2.9 MGD annual average daily flow (AADF). An average daily flow of 2.328 MGD was reported in May 2003 at the facility. This facility consists of three, 0.97 MGD design capacity package wastewater treatment plants that are contiguous and connected in parallel. Wastewater is treated at each plant by manual influent screening, aeration, clarification, chemical feed facilities, disinfection by chlorination, tertiary filtration, dechlorination, aerobic digestion of residuals and dewatering by two vacuum assisted drying beds. Sodium hypochlorite is used for disinfection and sulfur dioxide is used to dechlorinate treated effluent. Residuals are treated to Class B standards before being land applied. Treated effluent is discharged into Sweetwater Creek, then into the Class III fresh waters of Cove Lake at Discharge Location D-001, at approximately water surface level. The annual average daily flow reported to Sweetwater Creek for May 2003 was 1.608 MGD. The facility has a 0.40 MGD AADF permitted capacity rapid rate restricted public access land application system (R-001) which consists of four (4) percolation ponds, with an approximate total wetted area of 338,000 square feet. In May 2003, the reported AADF was 0.147 MGD to the ponds. The facility also has a 2.603 MGD AADF permitted capacity slow-rate public access reuse system (R-002) consisting of a reclaimed water transmission/distribution system for public access irrigation of golf courses, parks, playgrounds, landscapes areas, plant nurseries, road medians, and right of ways as well as a reclaimed water transmission main to be connected to the City of Altamonte Springs reclaimed water transmission system. This reported AADF in May 2003 was 0.611 MGD (facility information provided by Phil Kane, FDEP, Orlando).

Methods

Samples were collected from the NPDES sampling point by Phil Kane (DEP following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm

The toxicity and algal growth potential tests discussed in this report were performed following internal DEP SOP's TA07_05,TA07_09, and TA08_01 through TA08_06. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp

Toxicity Test Results

Tests were performed August 19-23, 2003.
The toxicity bioassays were scheduled and initiated as freshwater chronic screening tests. Due to a shipping problem with the commercial carrier, the third sample set was not received. District personnel were contacted and the decision was made to terminate the tests at 96 hours (the day samples did not arrive). Acute toxicity information was gleaned from the first 96 hours of the chronic tests and is reported here.

Ceriodaphnia dubia 96-hr acute toxicity data from chronic screening bioassay – Not Toxic
LC_{50} > 100%, no mortality in 100% sample.
Pimephales promelas 96-hr acute toxicity data from chronic screening bioassay – Not Toxic
LC_{50} >100%, 5% mortality in 100% sample.

Although the bioassay results showed that the effluent was not acutely toxic to the test organisms during the 96-hour exposure period, the results did not demonstrate that the facility was in

compliance with the facility's NPDES permit requirement of a No Observed Effect Concentration (NOEC) of not less than 100% derived from chronic tests.

See Table 1 for bioassay bench sheets.

Algal Growth Potential

Raschke and Shultz (1987) found that Algal Growth Potential (AGP) values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The effluent AGP was 82.8 mg dry wt/L of *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. This value is approximately 16 times greater than the "problem" threshold.

See Table 2 for predicted AGP values.

Chemistry Results

Total residual chlorine was not detected in the bioassay samples in the laboratory. Total ammonia was detected in the sample collected on August 18, 2003 at a concentration of 0.51 mg/L and was undetected in the sample collected on August 20, 2003. The calculated unionized ammonia concentrations for the first sample collected was 0.041 mg/L. These samples were preserved in ice. They were not acidified like the samples collected specifically for ammonia analyses.

The total ammonia concentration in the August 18 acid-preserved sample was 0.013 mg/L. The unionized ammonia concentration for this sample was calculated based on the temperature and pH of the sample at the time it was collected. The calculated unionized ammonia concentration was < 0.020 mg/L.

See Table 3 for results of analytes detected in the effluent.
See Appendix 1 for a complete list of chemical analyses performed.

Conclusion

The effluent samples collected from Outfall D-001 for this facility on August 18 and 20, 2003, did not show *acute* toxicity to either test species during the 96-hour test period. The chronic bioassays were terminated early due to sample delivery problems. The bioassay results did not demonstrate that the facility was in compliance with the facility's NPDES permit requirement of a No Observed Effect Concentration (NOEC) of not less than 100% derived from chronic tests. The effluent AGP result exceeded the "problem” threshold for fresh receiving waters.

Literature Cited

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.

Table 1. continued

Data recorded during the chronic bioassays of a sample of effluent from the Wekiva Hunt Club Wastewater Treatment Facility, 144 Ledbury, Longwood, Seminole County, NPDES # FL0036251, performed from August 19 to 23, 2003.

Chronic test terminated at 96 hours due to lack of third sample.

Facility:	**Wekiva Hunt Club WWTF**		**NPDES #:**	**FL0036251**	Facility Type:	**Wastewater**	**Analysts:** Marshall Faircloth
Location:	144 Ledbury, Longwood		Contact/District:	Phil Kane/Central		**Treatment Facility**	Joshua Ayres
County:	Seminole		Test type:	chronic screen			Christa Pierini
Sample #1 Collection Date:	8/18/2003	Time: 0800	# tests:	2	Receiving Water:	Sweetwater Creek	
Sample #2 Collection Date:	8/20/2003	Time: 0955	Chlorination Type:	dechlorinated		Class III Freshwater	
Test Beginning Date:	8/19/2003	Time: 1400				**Page 1 of 2**	
Test Ending Date:	8/23/2003	Time: 1000	FDEP SOP#:	TA07_05			**Reviewer:** Julie Espy

Organism: ***Ceriodaphnia dubia*** Life stage: < 24 hour [A]Feeding: YCT/Algae

Chamber size: 30 ml Food Batch #: #2/#17

	Sample/Diluent	# Young				
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	72 hr	[B]96 hr
Control A	0/20	0	0	0	0	0
Control B	0/20	0	0	0	0	0
Control C	0/20	0	0	0	0	0
Control D	0/20	0	0	0	0	0
Control E	0/20	0	0	0	0	0
Control F	0/20	0	0	0	0	0
Control G	0/20	0	0	0	1	0
Control H	0/20	0	0	0	0	0
Control I	0/20	0	0	0	0	0
Control J	0/20	0	0	0	0	0
100% A	20/0	0	0	0	0	0
100% B	20/0	0	0	0	0	0
100% C	20/0	0	0	0	0	0
100% D	20/0	0	0	0	0	0
100% E	20/0	0	0	0	0	0
100% F	20/0	0	0	0	0	0
100% G	20/0	0	0	0	0	0
100% H	20/0	0	0	0	0	0
100% I	20/0	0	0	0	0	0
100% J	20/0	0	0	0	0	0

[A]Organisms were fed daily.

[B]Temperatures of room and test incubator were continuously recorded on a strip chart recorder.

[C]DO = Dissolved Oxygen

Room Temperature range for the test period was 25.0 - 27.0 °C.

Incubator #3 temperature range for the test period was 25.0 - 26.0 °C.

Light Intensity during the test was 50-100 foot candles.

Photoperiod during the test was 16 hours of light : 8 hours of dark.

Survival	
Control	100%
100% sample	100%

Organism:	***Ceriodaphnia dubia***		After Renewal "new sample"			Conductivity Uncorrected	Before Renewal "old sample"	
Concentrations	Surrogate	Hour	pH	[B]Temp. (°C)	[C]DO (mg/L)	µmhos/cm	pH	[C]DO (mg/L)
Control	A	0	8.1	24.8	7.8	175	-	-
100%			8.0	24.2	7.4	700	-	-
Control	B	24	8.0	25.4	7.8	180	7.8	7.6
100%			8.0	25.2	7.7	535	8.3	7.4
Control	C	48	8.1	24.0	7.9	185	8.1	7.5
100%			8.0	24.7	7.7	580	8.3	7.3
Control	D	72	8.2	25.8	7.3	174	8.3	7.4
100%			8.2	25.1	7.2	560	8.4	7.3
Control	E	96	8.3	24.0	7.6	188	8.1	7.7
100%			8.2	24.3	7.8	554	8.1	7.6

LIMS	
Job number 1:	TLH-2003-08-18-11
Sample number 1:	696451
Job number 2:	TLH-2003-08-21-21
Sample number 2:	697254

Data Transcription Verification
date: 12/02/2003
by: Cathy Oaks/Josh Ayres

Total Resid. Cl_2	mg/L	Method
Field 100% sample#1:	3.74	facility meter
Field 100% sample#2:	3.89	facility meter
Lab Sample #1:	<0.03	Hach
Lab Sample #2:	0.02	Hach
Control Water :	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water :	<0.017	<0.017
100% Sample 1:	0.505	0.041
100% Sample 2:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	81	87
100% Sample 1:	119	121
100% Sample 2:	125	132

[E]Salinity	ppt
100% sample #1:	<1
100% sample #2:	<1
Control:	<1

[E]Salinity based on conductivity and temperature.

Table 1. Data recorded during the chronic bioassays of a sample of effluent from the Wekiva Hunt Club Wastewater Treatment Facility, 144 Ledbury, Longwood, Seminole County, Florida, NPDES # FL0036251, performed from August 19 to 23, 2003.

concluded.

Chronic test was terminated at 96 hours due to lack of the third bioassay sample.

Facility:	**Wekiva Hunt Club WWTF**		**NPDES #:**	**FL0036251**	Facility Type:	**Wastewater Treatment Facility**	**Analysts:** Marshall Faircloth
Location:	144 Ledbury, Longwood		Contact/District:	Phil Kane/Central			Joshua Ayres
County:	Seminole		Test type:	chronic screen			James Daniels
Sample #1 Collection Date:	8/18/2003	Time: 0800	# tests:	2	Receiving Water:	Sweetwater Creek	Christa Pierini
Sample #2 Collection Date:	8/20/2003	Time: 0955	Chlorination Type:	dechlorinated		Class III Freshwater	
Test Beginning Date:	8/19/2003	Time: 1400				**Page 2 of 2**	
Test Ending Date:	8/23/2003	Time: 1000	FDEP SOP#:	TA07_02			**Reviewer:** Julie Espy

Organism: ***Pimephales promelas*** Life stage: < 24 hours [A]Feeding: *Artemia*
Chamber size: 1000 mL Food Batch #: 01940425G

	Sample/Diluent	Survival Number Alive				
Concentration	Volume(mL)	0 hr	24 hr	48 hr	72 hr	[B]96 hr
Control A	0/500	10	10	10	10	10
Control B	0/500	10	10	10	9	9
Control C	0/500	10	10	10	10	10
Control D	0/500	10	10	9	9	9
100% A	500/0	10	10	10	10	10
100% B	500/0	10	10	10	10	10
100% C	500/0	10	10	10	10	10
100% D	500/0	10	10	10	10	8

Survival	
Control	95%
100% sample	95%

[A]Organisms were fed daily.

[A]Organisms were fed daily.
[B]Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
[C]DO = Dissolved Oxygen
Room Temperature range for the test period was 25.0 - 27.0 °C.
Incubator #3 temperature range for the test period was 25.0 - 26.0 °C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

LIMS	
Job number 1:	TLH-2003-08-18-11
sample number 1:	696451
Job number 2:	TLH-2003-08-21-21
sample number 2:	697254

Data Transcription Verification
date: 12/02/2003
by: Cathy Oaks/Josh Ayres/James Daniels

Total Resid. Cl_2	**mg/L**	**Method**
Field 100% sample#1:	3.74	facility meter
Field 100% sample#2:	3.89	facility meter
Lab Sample #1:	<0.03	Hach
Lab Sample #2:	0.02	Hach
Control Water :	<0.03	Hach

Pimephales promelas			**Before Renewal**			Conductivity Uncorrected	**After Renewal**			Conductivity Uncorrected
Concentration	Replicate	Hour	pH	[B]Temp. (°C)	[C]DO (mg/L)	µmhos/cm	pH	[B]Temp. (°C)	[C]DO (mg/L)	µmhos/cm
Control	A	0	8.3	24.8	7.7	325	-	-	-	-
100%			8.3	25.3	7.2	530	-	-	-	-
Control	B	24	7.4	25.8	7.7	355	7.9	24.9	7.9	330
100%			8.2	25.9	7.6	565	8.2	25.5	7.5	540
Control	C	48	8.0	24.7	7.5	335	8.0	24.0	7.9	300
100%			8.1	24.7	7.3	555	8.0	24.7	7.7	560
Control	D	72	7.9	24.1	7.5	330	7.7	25.0	7.5	323
100%			8.2	24.3	7.6	540	8.1	25.0	7.6	576
Control	A	96	7.7	24.0	6.8	320	7.8	24.5	7.7	331
100%			7.7	24.1	6.9	580	8.1	24.8	7.5	586

Ammonia	**Total (mg/L)**	**Unionized (mg/L)**
Control water :	<0.017	<0.017
100% Sample 1:	0.505	0.062
100% Sample 2:	<0.017	<0.017

Alk & Hardness	**Alkalinity (mg/L)**	**Hardness (mg/L)**
Control water:	81	88
100% Sample 1:	119	121
100% Sample 2:	125	132

[E]**Salinity**	**ppt**
100% sample #1:	<1
100% sample #2:	<1
Control:	<1

[E]Salinity based on conductivity and temperature.

Table 2. Measured and predicted algal growth potential (AGP) for orthophosphate (OP) and total phosphorus limitation in the sample of effluent collected from the Wekiva Hunt Club WWTF on August 18, 2003.

Location	AGP (measured)	Predicted AGP (OP) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent	82.8	42.57 ± 8.514	60.2 ± 12.04	39.53	32.71

Table 3. Effluent limits, Class III Criteria and chemical data for samples collected from the Wekiva Hunt Club WWTF on August 18 and 20, 2003.

Wekiva Hunt Club WWTF	Class III Stds	effluent 08/18/03	effluent 08/20/03
Organic Constituents (µg/L)			
Atrazine		-	0.11 I
Metals (µg/L unless otherwise noted)			
Aluminum	≤ 1500	137 A	204 A
Arsenic	≤ 50	8 U	5 U
Cadmium	≤ 1.4 b	0.078 I	0.055 I
Calcium (mg/L)	-	36.3 A	37 A
Chromium-III	≤ 105.8 b	2 U	2 U
Copper	≤ 11.6 b	3.6 I	3.6 I
Iron	≤ 1000	16 I	16 I
Lead	≤ 4.4 b	0.37 A	0.29 A
Magnesium (mg/L)	-	9.2 A	9.2 A
Nickel	≤ 64.5 b	2 U	2.5 U
Selenium	≤ 5	1 U	1 U
Silver	≤ 0.07	0.02 U	0.02 U
Zinc	≤ 148.2 b	32.8 A	30 A
Nutrients (mg/L)			
Nitrate-N	-	4.1 A	-
Ortho-phosphate	-	0.099	-
Total Phosphorus	-	0.14	-
Ammonia	-	0.013 I	-
Unionized Ammonia	≤ 0.02	<0.02 c	-
Nitrate+Nitrite	-	3.9 A	-
Total Kjeldahl Nitrogen	-	0.68	-
Organic Nitrogen	-	0.67 c	-
Total Nitrogen	-	4.58 c	-
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 5	7.8	7.3
pH (S.U.)	-	7.3	7.5
Conductivity (umhos/cm)	≤ 1275	552	557
Temperature (C)	-	29.1	28.8
Hardness (mg/L)	-	128.5 c	130.3 c
AGP (mg DryWt/L)	-	82.8 A	-
Total Residual Chlorine (mg/L)	≤ 0.01	3.74	3.89

b - Value is calculated based on hardness
c - calculated value.
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.
U - Material was analyzed for but not detected. The value reported is the minimum detection limit.

Appendix 1. Chemical Analyses performed on the effluent from the Wekiva Hunt Club Wastewater Treatment Facility sampled on August 18 and 20, 2003.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/18/2003 8:00	WHK 1	Bio-AGP/LimNut	Algal Growth Potential	82.8	mg DryWt/L	A	0.1	0.3
8/18/2003 8:00	WHK 1	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
8/18/2003 8:00	WHK 1	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
8/18/2003 8:00	WHK 1	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	JL		
8/18/2003 8:00	WHK 1	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	JL		
8/18/2003 8:00	WHK 1	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	76
8/18/2003 8:00	WHK 1	BNA-Water	1-Naphthylamine	9.5	ug/L	UJ	9.5	38
8/18/2003 8:00	WHK 1	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	2,4,5-Trichlorophenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
8/18/2003 8:00	WHK 1	BNA-Water	2,4-Dinitrophenol	14	ug/L	UJ	14	57
8/18/2003 8:00	WHK 1	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2,6-Dichlorophenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Acetylaminofluorene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	2-Methylnaphthalene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Naphthylamine	9.5	ug/L	U	9.5	38
8/18/2003 8:00	WHK 1	BNA-Water	2-Nitroaniline	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	2-Picoline	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
8/18/2003 8:00	WHK 1	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	76
8/18/2003 8:00	WHK 1	BNA-Water	3-Methylcholanthrene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	3-Nitroaniline	0.95	ug/L	UJ	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	4-Aminobiphenyl	3.8	ug/L	UJ	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	4-Chloroaniline	0.95	ug/L	UJ	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	4-Nitroaniline	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
8/18/2003 8:00	WHK 1	BNA-Water	5-Nitro-o-toluidine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Acetophenone	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	Aniline	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Benzidine	95	ug/L	U	95	380
8/18/2003 8:00	WHK 1	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8

8/18/2003 8:00	WHK 1	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	o-Toluidine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
8/18/2003 8:00	WHK 1	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
8/18/2003 8:00	WHK 1	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
8/18/2003 8:00	WHK 1	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
8/18/2003 8:00	WHK 1	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
8/18/2003 8:00	WHK 1	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
8/18/2003 8:00	WHK 1	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
8/18/2003 8:00	WHK 1	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
8/18/2003 8:00	WHK 1	GC-Water	Naled	0.76	ug/L	UJ	0.76	3.04
8/18/2003 8:00	WHK 1	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
8/18/2003 8:00	WHK 1	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
8/18/2003 8:00	WHK 1	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
8/18/2003 8:00	WHK 1	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
8/18/2003 8:45	WHK 1	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
8/18/2003 8:45	WHK 1	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
8/18/2003 8:45	WHK 1	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
8/18/2003 8:45	WHK 1	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
8/18/2003 8:45	WHK 1	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
8/18/2003 8:45	WHK 1	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
8/18/2003 8:45	WHK 1	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
8/18/2003 8:45	WHK 1	GC-Water	Naled	0.76	ug/L	UJ	0.76	3.04
8/18/2003 8:45	WHK 1	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
8/18/2003 8:45	WHK 1	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
8/18/2003 8:45	WHK 1	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
8/18/2003 8:45	WHK 1	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
8/18/2003 8:45	WHK 1	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
8/18/2003 8:00	WHK 1	Metals-Water	Aluminum	137	ug/L	A	10	40
8/18/2003 8:00	WHK 1	Metals-Water	Arsenic	8	ug/L	U	8	32
8/18/2003 8:00	WHK 1	Metals-Water	Cadmium	0.078	ug/L	I	0.025	0.1
8/18/2003 8:00	WHK 1	Metals-Water	Calcium	36.3	mg/L	A	0.05	0.3
8/18/2003 8:00	WHK 1	Metals-Water	Chromium	2	ug/L	U	2	8

8/18/2003 8:00	WHK 1	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Benzyl alcohol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
8/18/2003 8:00	WHK 1	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
8/18/2003 8:00	WHK 1	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
8/18/2003 8:00	WHK 1	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Dibenzofuran	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
8/18/2003 8:00	WHK 1	BNA-Water	Dimethylaminoazobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	Ethyl methanesulfonate	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
8/18/2003 8:00	WHK 1	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Isosafrole	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Methapyrilene	3.8	ug/L	UJ	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	Methyl methanesulfonate	0.95	ug/L	UJ	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosodi-n-butylamine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosodiethylamine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosomorpholine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosopiperidine	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
8/18/2003 8:00	WHK 1	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	UJ	19	76
8/18/2003 8:00	WHK 1	BNA-Water	Pentachlorobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
8/18/2003 8:00	WHK 1	BNA-Water	Pentachloronitrobenzene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
8/18/2003 8:00	WHK 1	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	11
8/18/2003 8:00	WHK 1	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	Pyridine	3.8	ug/L	UJ	3.8	15
8/18/2003 8:00	WHK 1	BNA-Water	Safrole	0.95	ug/L	U	0.95	3.8
8/18/2003 8:00	WHK 1	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7

8/18/2003 8:00	WHK 1	Metals-Water	Copper	3.6	ug/L	I	1.2	4.8
8/18/2003 8:00	WHK 1	Metals-Water	Iron	16	ug/L	I	10	40
8/18/2003 8:00	WHK 1	Metals-Water	Lead	0.37	ug/L	A	0.05	0.2
8/18/2003 8:00	WHK 1	Metals-Water	Magnesium	9.2	mg/L	A	0.01	0.04
8/18/2003 8:00	WHK 1	Metals-Water	Nickel	2	ug/L	U	2	8
8/18/2003 8:00	WHK 1	Metals-Water	Selenium	1	ug/L	U	1	4
8/18/2003 8:00	WHK 1	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
8/18/2003 8:00	WHK 1	Metals-Water	Zinc	32.8	ug/L	A	2	8
8/18/2003 8:45	WHK 1	Metals-Water	Aluminum	10	ug/L	U	10	40
8/18/2003 8:45	WHK 1	Metals-Water	Arsenic	8	ug/L	U	8	32
8/18/2003 8:45	WHK 1	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
8/18/2003 8:45	WHK 1	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.3
8/18/2003 8:45	WHK 1	Metals-Water	Chromium	2	ug/L	U	2	8
8/18/2003 8:45	WHK 1	Metals-Water	Copper	1.2	ug/L	U	1.2	4.8
8/18/2003 8:45	WHK 1	Metals-Water	Iron	10	ug/L	U	10	40
8/18/2003 8:45	WHK 1	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
8/18/2003 8:45	WHK 1	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
8/18/2003 8:45	WHK 1	Metals-Water	Nickel	2	ug/L	U	2	8
8/18/2003 8:45	WHK 1	Metals-Water	Selenium	1	ug/L	U	1	4
8/18/2003 8:45	WHK 1	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
8/18/2003 8:45	WHK 1	Metals-Water	Zinc	2	ug/L	U	2	8
8/18/2003 8:00	WHK 1	Nutrients-Liquid	Ammonia-N	0.013	mg N/L	I	0.01	0.02
8/18/2003 8:00	WHK 1	Nutrients-Liquid	NO2NO3-N	3.9	mg N/L	A	0.4	1
8/18/2003 8:00	WHK 1	Nutrients-Liquid	N_KJEL_TOT	0.68	mg N/L		0.12	0.4
8/18/2003 8:00	WHK 1	Nutrients-Liquid	Nitrate-N	4.1	mg N/L	A	0.02	0.04
8/18/2003 8:00	WHK 1	Nutrients-Liquid	O-Phosphate-P	0.099	mg P/L		0.008	0.02
8/18/2003 8:00	WHK 1	Nutrients-Liquid	Total-P	0.14	mg P/L		0.02	0.06
8/18/2003 8:45	WHK 1	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
8/18/2003 8:45	WHK 1	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
8/18/2003 8:45	WHK 1	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
8/18/2003 8:45	WHK 1	Nutrients-Liquid	Nitrate-N	0.02	mg N/L	U	0.02	0.04
8/18/2003 8:45	WHK 1	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
8/18/2003 8:45	WHK 1	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
8/19/2003 9:55	WHK2	Bio-Toxicology	Bioassay-Chronic-Scrn-FW-C.dubia, NOEC		NOEC			
8/19/2003 9:55	WHK2	Bio-Toxicology	Bioassay-Chronic-Scrn-FW-Fish, NOEC		NOEC			
8/19/2003 9:55	WHK2	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	1,3,5-Trinitrobenzene	3.8	ug/L	U	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	77
8/19/2003 9:55	WHK2	BNA-Water	1-Naphthylamine	9.6	ug/L	UJ	9.6	38
8/19/2003 9:55	WHK2	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	2,4,5-Trichlorophenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
8/19/2003 9:55	WHK2	BNA-Water	2,4-Dinitrophenol	14	ug/L	UJ	14	58
8/19/2003 9:55	WHK2	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2,6-Dichlorophenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Acetylaminofluorene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	2-Methylnaphthalene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Naphthylamine	9.6	ug/L	U	9.6	38
8/19/2003 9:55	WHK2	BNA-Water	2-Nitroaniline	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	2-Picoline	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150

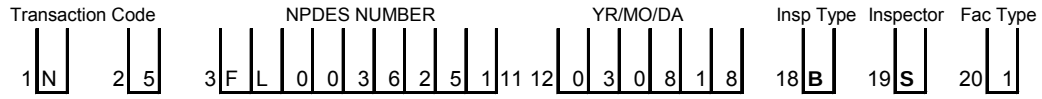
8/19/2003 9:55	WHK2	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	77
8/19/2003 9:55	WHK2	BNA-Water	3-Methylcholanthrene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	3-Nitroaniline	0.96	ug/L	UJ	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	4-Aminobiphenyl	3.8	ug/L	UJ	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	4-Chloroaniline	0.96	ug/L	UJ	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	4-Nitroaniline	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
8/19/2003 9:55	WHK2	BNA-Water	5-Nitro-o-toluidine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Acetophenone	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	Aniline	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Benzidine	96	ug/L	U	96	380
8/19/2003 9:55	WHK2	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Benzyl alcohol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
8/19/2003 9:55	WHK2	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
8/19/2003 9:55	WHK2	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
8/19/2003 9:55	WHK2	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Dibenzofuran	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
8/19/2003 9:55	WHK2	BNA-Water	Dimethylaminoazobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Dinoseb	3.8	ug/L	U	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	Ethyl methanesulfonate	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	Hexachloropropene	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Isosafrole	0.96	ug/L	U	0.96	3.8

8/19/2003 9:55	WHK2	BNA-Water	Methapyrilene	3.8	ug/L	UJ	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	Methyl methanesulfonate	0.96	ug/L	UJ	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosodi-n-butylamine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosodiethylamine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosomorpholine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosopiperidine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	UJ	19	77
8/19/2003 9:55	WHK2	BNA-Water	Pentachlorobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Pentachloroethane	48	ug/L	U	48	190
8/19/2003 9:55	WHK2	BNA-Water	Pentachloronitrobenzene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
8/19/2003 9:55	WHK2	BNA-Water	Phenacetin	3.8	ug/L	U	3.8	12
8/19/2003 9:55	WHK2	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	Pyridine	3.8	ug/L	UJ	3.8	15
8/19/2003 9:55	WHK2	BNA-Water	Safrole	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
8/19/2003 9:55	WHK2	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.7
8/19/2003 9:55	WHK2	BNA-Water	o-Toluidine	0.96	ug/L	U	0.96	3.8
8/19/2003 9:55	WHK2	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.28
8/19/2003 9:55	WHK2	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Atrazine	0.11	ug/L	I	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
8/19/2003 9:55	WHK2	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
8/19/2003 9:55	WHK2	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
8/19/2003 9:55	WHK2	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
8/19/2003 9:55	WHK2	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
8/19/2003 9:55	WHK2	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
8/19/2003 9:55	WHK2	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
8/19/2003 9:55	WHK2	GC-Water	Naled	0.76	ug/L	UJ	0.76	3.04
8/19/2003 9:55	WHK2	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
8/19/2003 9:55	WHK2	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
8/19/2003 9:55	WHK2	GC-Water	Phorate	0.058	ug/L	U	0.048	0.19
8/19/2003 9:55	WHK2	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
8/19/2003 9:55	WHK2	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
8/19/2003 9:55	WHK2	Metals-Water	Aluminum	204	ug/L	A	10	40
8/19/2003 9:55	WHK2	Metals-Water	Arsenic	5	ug/L	U	5	20
8/19/2003 9:55	WHK2	Metals-Water	Cadmium	0.055	ug/L	I	0.025	0.1
8/19/2003 9:55	WHK2	Metals-Water	Calcium	37	mg/L	A	0.05	0.2
8/19/2003 9:55	WHK2	Metals-Water	Chromium	2	ug/L	U	2	8
8/19/2003 9:55	WHK2	Metals-Water	Copper	3.6	ug/L	I	1.2	4.8

8/19/2003 9:55	WHK2	Metals-Water	Iron	16	ug/L	I	15	60
8/19/2003 9:55	WHK2	Metals-Water	Lead	0.29	ug/L	A	0.05	0.2
8/19/2003 9:55	WHK2	Metals-Water	Magnesium	9.2	mg/L	A	0.02	0.08
8/19/2003 9:55	WHK2	Metals-Water	Nickel	2.5	ug/L	U	2.5	10
8/19/2003 9:55	WHK2	Metals-Water	Selenium	1	ug/L	U	1	4
8/19/2003 9:55	WHK2	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
8/19/2003 9:55	WHK2	Metals-Water	Zinc	30	ug/L	A	4	16

The Bioassay of Wekiva Hunt Club WWTF effluent sampled on August 18 and 20, 2003, NPDES #FL0036251.

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



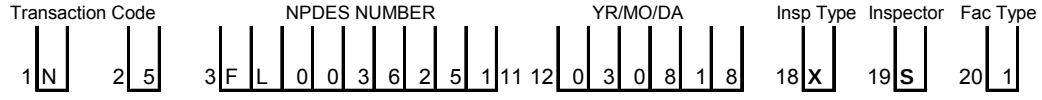
Remarks



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The Priority Pollutants Analysis for Bioassay of Wekiva Hunt Club WWTF effluent sampled on August 18 and 20, 2003, NPDES #FL0036251.

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



Remarks



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