LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
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Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

FEB 0 5 2019

Mr. David Green, Water Quality Supervisor
Utilities Board of the City of Sylacauga
Post Office Box 207
Sylacauga, AL 35150

RE: Draft Permit
NPDES Permit No. AL0020001
J Earl Ham WWTP
Talladega County, Alabama

Dear Mr. Green:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Please be aware that Part I.C.1.c of your permit requires that you apply for participation in the Department's web-based Electronic Environmental (E2) Reporting System Program for submittal of DMRs upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. Please also be aware that Part I.C.2.e of your permit requires that you apply for participation in the Department's web-based electronic environmental (E2) reporting system for submittal of **SSOs** within 30 days of coverage under this permit unless valid justification as to why you cannot participate is submitted in writing. After issuance of the permit, SSO hotline notifications and hard copy Form 415 SSO reports may be used only with the written approval from the Department. The E2 Program allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. The Permittee Participation Package may be downloaded online at **https://e2.adem.alabama.gov/npdes** or you may obtain a hard copy by submitting a written request or by emailing e2admin@adem.alabama.gov.

Please also be aware that Part IV. of your permit requires that you develop, implement, and maintain a Sanitary Sewer Overflow Response Plan.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

Should you have any questions, please contact the undersigned by email at storbert@adem.alabama.gov or by phone at (334) 271-7800.

Sincerely,

Shanda Torbert
Municipal Section
Water Division

Enclosure

cc: Environmental Protection Agency Email
Ms. Elaine Snyder/U.S. Fish and Wildlife Service
Ms. Elizabeth Brown/Alabama Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	UTILITIES BOARD OF THE CITY OF SYLACAUGA POST OFFICE BOX 207 SYLACAUGA, ALABAMA 35150	
FACILITY LOCATION:	J EARL HAM WWTP 610 OLD SYLACAUGA HIGHWAY SYLACAUGA, ALABAMA TALLADEGA COUNTY	(4.8) MGD
PERMIT NUMBER:	AL0020001	
RECEIVING WATERS:	SHIRTEE CREEK UNNAMED TRIBUTARY TO SHIRTEE CREEK	

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

MUNICIPAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 0012 Discharge Limits – stream flow <4.64 cfs

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0012, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow Rate 00058 1 0 0	*****	*****	*****	*****	*****	REPORT cfs	*****	RS	CONTIN See Note 5	A	*****
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	C	*****
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	8.5 S.U.	*****	E	GRAB	C	*****
Solids, Total Suspended 00530 1 0 0	1200 lbs/day	1801 lbs/day	30 mg/l	45 mg/l	*****	*****	*****	E	COMP24	C	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	100 lbs/day	150 lbs/day	2.5 mg/l	3.7 mg/l	*****	*****	*****	E	COMP24	C	S
Nitrogen, Ammonia Total (As N) 00610 1 0 0	160 lbs/day	240 lbs/day	4.0 mg/l	6.0 mg/l	*****	*****	*****	E	COMP24	C	W
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) When calculating the reported stream flow rate using USGS #02406930 Shirtee Creek near Odena, Alabama, the J.E. Ham WWTP discharge must be subtracted, then an additional 10% of the remaining flow should be subtracted.

(6) If only one sampling event occurs during a month, the sample result shall be reported on the DMR as both the monthly average, weekly average, and/or the daily maximum.

Note: The limits for Outfall 0012 are applicable if any average daily stream flow is less than 4.64 cfs during any day of the calendar month. If Outfall 0012 is applicable, DMRs for 0013 and 0014 should be submitted with "No Discharge" marked for the month.

Limits for Outfall 0012 continued on the next page.

2. Outfall 0012 Discharge Limits - 4.8 MGD (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0012, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Copper Total Recoverable 01119 1 0 0	*****	*****	33.1 µg/l	*****	*****	51.0 µg/l	*****	E	COMP24	G See Note 5	*****
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual 50060 1 0 0	*****	*****	0.011 mg/l	*****	*****	0.019 mg/l	*****	E	GRAB	C See Note 6 & 7	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	298 col/100mL	*****	E	GRAB	C	ECS
E. Coli 51040 1 0 0	*****	*****	548 col/100mL	*****	*****	2507 col/100mL	*****	E	GRAB	C	ECW
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	520 lbs/day	780 lbs/day	13.0 mg/l	19.5 mg/l	*****	*****	*****	E	COMP24	C	S
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	360 lbs/day	540 lbs/day	9.0 mg/l	13.5 mg/l	*****	*****	*****	E	COMP24	C	W
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) If only one sampling event occurs during a month, the sample result shall be reported on the DMR as both the monthly average, weekly average, and/or the daily maximum.

(6) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" on the monthly DMR.

(7) A measurement of Total Residual Chlorine below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as * B on the discharge monitoring reports.

3. Outfall 0013 Discharge Limits - 4.64 cfs ≤ stream flow < 9.28 cfs

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0013, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow Rate 00058 1 0 0	*****	*****	*****	*****	4.64 cfs	REPORT cfs	*****	RS	CONTIN See Note 5	A	*****
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	C	*****
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	8.5 S.U.	*****	E	GRAB	C	*****
Solids, Total Suspended 00530 1 0 0	1200 lbs/day	1801 lbs/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	140 lbs/day	210 lbs/day	3.5 mg/l	5.2 mg/l	*****	*****	*****	E	COMP24	C	*****
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Copper Total Recoverable 01119 1 0 0	*****	*****	52.1 µg/l	*****	*****	73.1 µg/l	*****	E	COMP24	G See Note 6	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) When calculating the reported stream flow rate using USGS #02406930 Shirtee Creek near Odena, Alabama, the J.E. Ham WWTP discharge must be subtracted, then an additional 10% of the remaining flow should be subtracted.

(6) If only one sampling event occurs during a month, the sample result shall be reported on the DMR as both the monthly average, weekly average, and/or the daily maximum.

Note: The limits for Outfall 0013 are applicable if all average daily stream flows are greater than 4.64 cfs during each day of the calendar month. If all daily average stream flows are >9.28 cfs during each day of the month then Outfall 0014 is applicable. If Outfall 0013 is applicable, DMRs for 0012 and 0014 should be submitted with "No Discharge" marked for the month.

Limits for Outfall 0013 continued on the next page.

4. Outfall 0013 Discharge Limits - 4.64 cfs ≤ stream flow < 9.28 cfs (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0013, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual 50060 1 0 0	*****	*****	0.018 mg/l	*****	*****	0.031 mg/l	*****	E	GRAB	C See Note 5 & 6	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	298 col/100mL	*****	E	GRAB	C	ECS
E. Coli 51040 1 0 0	*****	*****	548 col/100mL	*****	*****	2507 col/100mL	*****	E	GRAB	C	ECW
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	400 lbs/day	600 lbs/day	10.0 mg/l	15.0 mg/l	*****	*****	*****	E	COMP24	C	S
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	280 lbs/day	420 lbs/day	7.0 mg/l	10.5 mg/l	*****	*****	*****	E	COMP24	C	W
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" on the monthly DMR.

(6) A measurement of Total Residual Chlorine below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as * B on the discharge monitoring reports.

5. Outfall 0014 Discharge Limits - stream flow ≥ 9.28 cfs

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0014, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow Rate 00058 1 0 0	*****	*****	*****	*****	9.28 cfs	REPORT cfs	*****	RS	CONTIN See Note 5	A	*****
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	C	*****
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	8.5 S.U.	*****	E	GRAB	C	*****
Solids, Total Suspended 00530 1 0 0	1200 lbs/day	1801 lbs/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	200 lbs/day	300 lbs/day	5.0 mg/l	7.5 mg/l	*****	*****	*****	E	COMP24	C	S
Nitrogen, Ammonia Total (As N) 00610 1 0 0	120 lbs/day	180 lbs/day	3.0 mg/l	4.5 mg/l	*****	*****	*****	E	COMP24	C	W
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G See Note 6	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) When calculating the reported stream flow rate using USGS #02406930 Shirtee Creek near Odena, Alabama, the J.E. Ham WWTP discharge must be subtracted, then an additional 10% of the remaining flow should be subtracted.

(6) If only one sampling event occurs during a month, the sample result shall be reported on the DMR as both the monthly average, weekly average, and/or the daily maximum.

Note: The limits for Outfall 0014 are applicable if all average daily stream flows are greater than 9.28 cfs during every day of the calendar month. If Outfall 0014 is applicable, DMRs for 0012 and 0013 should be submitted with "No Discharge" marked for the month.

Limits for Outfall 0014 continued on the next page.

6. Outfall 0014 Discharge Limits - stream flow ≥ 9.28 cfs (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0014, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Copper Total Recoverable 01119 1 0 0	*****	*****	72.1 µg/l	*****	*****	96.4 µg/l	*****	E	COMP24	G See Note 5	*****
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual 50060 1 0 0	*****	*****	0.025 mg/l	*****	*****	0.043 mg/l	*****	E	GRAB	C See Note 6 & 7	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	298 col/100mL	*****	E	GRAB	C	ECS
E. Coli 51040 1 0 0	*****	*****	548 col/100mL	*****	*****	2507 col/100mL	*****	E	GRAB	C	ECW
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	320 lbs/day	480 lbs/day	8.0 mg/l	12.0 mg/l	*****	*****	*****	E	COMP24	C	S
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	280 lbs/day	420 lbs/day	7.0 mg/l	10.5 mg/l	*****	*****	*****	E	COMP24	C	W
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) If only one sampling event occurs during a month, the sample result shall be reported on the DMR as both the monthly average, weekly average, and/or the daily maximum.

(6) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" on the monthly DMR.

(7) A measurement of Total Residual Chlorine below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as * B on the discharge monitoring reports.

7. Outfall 001T Discharge Limits - Toxicity

Outfall 001T represents the same physical outfall as Outfall 001. The Department uses the 001T designation for all samples collected and analyzed for Toxicity testing. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Toxicity, Ceriodaphnia Chronic 61426 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	*****
Toxicity, Pimephales Chronic 61428 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

8. Outfall 002S Discharge Limits – Storm Water

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 002S, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) (5) Sample Type	(3) Measurement Frequency	(4) Seasonal
pH 00400 SW 0 0	*****	*****	*****	*****	REPORT S.U.	REPORT S.U.	*****	SW	FFGS	J	*****
Solids, Total Suspended 00530 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Oil & Grease 00556 SW 0 0	*****	*****	*****	*****	*****	15.0 mg/l	*****	SW	FFGS	J	*****
Nitrogen, Ammonia Total (As N) 00610 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Nitrogen, Kjeldahl Total (As N) 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Phosphorus, Total (As P) 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Flow, In Conduit or Thru Treatment Plant 50050 SW 0 0	*****	*****	*****	*****	*****	REPORT MGD	*****	SW	CALCTD See Note 6	J	*****
E. Coli 51040 SW 0 0	*****	*****	*****	*****	*****	REPORT col/100mL	*****	SW	FFGS	J	*****
BOD, Carbonaceous 05 Day, 20C 80082 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Note Part IV.F.3.

(6) For all stormwater parameters, samples shall be first flushed grab samples (FFGS) collected during the first 30 minutes of discharge.

9. Outfall 003S Discharge Limits – Storm Water

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 003S, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) (5) Sample Type	(3) Measurement Frequency	(4) Seasonal
pH 00400 SW 0 0	*****	*****	*****	*****	REPORT S.U.	REPORT S.U.	*****	SW	FFGS	J	*****
Solids, Total Suspended 00530 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Oil & Grease 00556 SW 0 0	*****	*****	*****	*****	*****	15.0 mg/l	*****	SW	FFGS	J	*****
Nitrogen, Ammonia Total (As N) 00610 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Nitrogen, Kjeldahl Total (As N) 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Phosphorus, Total (As P) 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Flow, In Conduit or Thru Treatment Plant 50050 SW 0 0	*****	*****	*****	*****	*****	REPORT MGD	*****	SW	CALCTD See Note 6	J	*****
E. Coli 51040 SW 0 0	*****	*****	*****	*****	*****	REPORT col/100mL	*****	SW	FFGS	J	*****
BOD, Carbonaceous 05 Day, 20C 80082 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Note Part IV.F.3.

(6) For all stormwater parameters, samples shall be first flushed grab samples (FFGS) collected during the first 30 minutes of discharge.

10. Outfall 004S Discharge Limits – Storm Water

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 004S, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) (5) Sample Type	(3) Measurement Frequency	(4) Seasonal
pH 00400 SW 0 0	*****	*****	*****	*****	REPORT S.U.	REPORT S.U.	*****	SW	FFGS	J	*****
Solids, Total Suspended 00530 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Oil & Grease 00556 SW 0 0	*****	*****	*****	*****	*****	15.0 mg/l	*****	SW	FFGS	J	*****
Nitrogen, Ammonia Total (As N) 00610 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Nitrogen, Kjeldahl Total (As N) 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Phosphorus, Total (As P) 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****
Flow, In Conduit or Thru Treatment Plant 50050 SW 0 0	*****	*****	*****	*****	*****	REPORT MGD	*****	SW	CALCTD See Note 6	J	*****
E. Coli 51040 SW 0 0	*****	*****	*****	*****	*****	REPORT col/100mL	*****	SW	FFGS	J	*****
BOD, Carbonaceous 05 Day, 20C 80082 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	FFGS	J	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Note Part IV.F.3.

(6) For all stormwater parameters, samples shall be first flushed grab samples (FFGS) collected during the first 30 minutes of discharge.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

   Sample collection and measurement actions shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit. The effluent sampling point shall be at the nearest accessible location just prior to discharge and after final treatment, unless otherwise specified in the permit.

2. Measurement Frequency

   Measurement frequency requirements found in Provision I.A. shall mean:

   a. Seven days per week shall mean daily.

   b. Five days per week shall mean any five days of discharge during a calendar weekly period of Sunday through Saturday.

   c. Three days per week shall mean any three days of discharge during a calendar week.

   d. Two days per week shall mean any two days of discharge during a calendar week.

   e. One day per week shall mean any day of discharge during a calendar week.

   f. Two days per month shall mean any two days of discharge during the month that are no less than seven days apart. However, if discharges occur only during one seven-day period in a month, then two days per month shall mean any two days of discharge during that seven day period.

   g. One day per month shall mean any day of discharge during the calendar month.

   h. Quarterly shall mean any day of discharge during each calendar quarter.

   i. The Permittee may increase the frequency of sampling, listed in Provisions I.B.2.a through I.B.2.h; however, all sampling results are to be reported to the Department.

3. Test Procedures

   For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

   a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the Permittee shall use the newly approved method.

   b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

      Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

      In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

   c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

      The Minimum Level utilized for procedures a and b above shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

4. Recording of Results

   For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

   a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

5. Records Retention and Production

a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.

b. All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

6. Reduction, Suspension or Termination of Monitoring and/or Reporting

a. The Director may, with respect to any point source identified in Provision I.A. of this permit, authorize the Permittee to reduce, suspend or terminate the monitoring and/or reporting required by this permit upon the submission of a written request for such reduction, suspension or termination by the Permittee, supported by sufficient data which demonstrates to the satisfaction of the Director that the discharge from such point source will continuously meet the discharge limitations specified in Provision I.A. of this permit.

b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this permit until written authorization to reduce, suspend or terminate such monitoring and/or reporting is received by the Permittee from the Director.

7. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. At a minimum, flow measurement devices shall be calibrated at least once every 12 months.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The Permittee shall conduct the required monitoring in accordance with the following schedule:

(1) **MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY** shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

(2) **QUARTERLY MONITORING** shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring should be reported on the last DMR due for the quarter (i.e., March, June, September and December DMRs).

(3) **SEMIANNUAL MONITORING** shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., June and December DMRs).

(4) **ANNUAL MONITORING** shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter.

Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be reported on the December DMR.

b. The Permittee shall submit discharge monitoring reports (DMRs) on the forms approved by the Department and in accordance with the following schedule:

(1) **REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING** shall be submitted on a monthly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(2) **REPORTS OF QUARTERLY TESTING** shall be submitted on a quarterly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(3) **REPORTS OF SEMIANNUAL TESTING** shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(4) **REPORTS OF ANNUAL TESTING** shall be submitted on an annual basis. Unless specified elsewhere in the permit, the first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b. by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting System (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b., unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

A permittee with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and Regulations, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible

official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

> **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."**

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. Noncompliance Notifications and Reports

a. The Permittee shall notify the Department if, for any reason, the Permittee's discharge:

(1) Does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I.A. of this permit which is denoted by an "(X)";

(2) Potentially threatens human health or welfare;

(3) Threatens fish or aquatic life;

(4) Causes an in-stream water quality criterion to be exceeded;

(5) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(6) Contains a quantity of a hazardous substance that may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(7) Exceeds any discharge limitation for an effluent parameter listed in Part I.A. as a result of an unanticipated bypass or upset; or

(8) Is an unpermitted direct or indirect discharge of a pollutant to a water of the state. (Note that unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision.)

The Permittee shall orally or electronically provide notification of any of the above occurrences, describing the circumstances and potential effects, to the Director or Designee within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic notification, the Permittee shall submit a report to the Director or Designee, as provided in Provision I.C.2.c. or I.C.2.e., no later than five days after becoming aware of the occurrence of such discharge or occurrence.

b. If, for any reason, the Permittee's discharge does not comply with any limitation of this permit, then the Permittee shall submit a written report to the Director or Designee, as provided in Provision I.C.2.c below. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Provision I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Except for notifications and reports of notifiable SSOs which shall be submitted in accordance with the applicable Provisions of this permit, the Permittee shall submit the reports required under Provisions I.C.2.a. and b. to the Director or Designee on ADEM Form 421, available on the Department's website (http://www.adem.state.al.us/DeptForms/Form421.pdf). The completed Form must document the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If the noncompliance is not corrected by the due date of the written report, then the Permittee shall provide an estimated date by which the noncompliance will be corrected; and

(3) A description of the steps taken by the Permittee and the steps planned to be taken by the Permittee to reduce or eliminate the noncompliant discharge and to prevent its recurrence.

d. Immediate notification

The Permittee shall provide notification to the Director, the public, the county health department, and any other affected entity such as public water systems, as soon as possible upon becoming aware of any notifiable sanitary sewer overflow. Notification to the Director shall be completed utilizing the Department's web-based electronic environmental SSO reporting system in accordance with Provision I.C.2.e.

e. The Department is utilizing a web-based electronic environmental (E2) reporting system for notification and submittal of SSO reports. **If the Permittee is not already participating in the E2 Reporting System for SSO reports, the Permittee must apply for participation in the system within 30 days of coverage under this permit unless the Permittee submits in writing valid justification as to why it cannot participate and the Department approves in writing utilization of verbal notifications and hard copy SSO report submittals.** Once the Permittee is enrolled in the E2 Reporting System for SSO reports, the Permittee must utilize the system for notification and submittal of all SSO reports unless otherwise allowed by this permit. The Permittee shall include in the SSO reports the information requested by ADEM Form 415. In addition, the Permittee shall include the latititude and longitude of the SSO in the report except when the SSO is a result of an extreme weather event (e.g., hurricane). To participate in the E2 Reporting System for SSO reports, the Permittee Participation Package may be downloaded online at **https://e2.adem.alabama.gov/npdes**. If the E2 Reporting System is down (i.e., electronic submittal of SSO data cannot be completed due to technical problems originating with the Department's system), the Permittee is not relieved of its obligation to notify the Department or submit SSO reports to the Department by the required submittal date, and the Permittee shall submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include verbal reports, reports submitted via the SSO hotline, or reports submitted via fax, e-mail, mail, or hand-delivery such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the Permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. For any alternate notification, records of the date, time, notification method, and person submitting the notification should be maintained by the Permittee. If a Permittee is allowed to submit SSO reports via an alternate method, the SSO report must be in a format approved by the Department and must be legible.

f. The Permittee shall maintain a record of all known wastewater discharge points that are not authorized as permitted outfalls, including but not limited to SSOs. The Permittee shall include this record in its Municipal Water Pollution Prevention (MWPP) Annual Reports, which shall be submitted to the Department each year by May 31st for the prior calendar year period beginning January 1st and ending December 31st. The MWPP Annual Reports shall contain a list of all known wastewater discharge points that are not authorized as permitted outfalls and any discharges that occur prior to the headworks of the wastewater treatment plant covered by this permit. The Permittee shall also provide in the MWPP Annual Reports a list of any discharges reported during the applicable time period in accordance with Provision I.C.2.a. The Permittee shall include in its MWPP Annual Reports the following information for each known unpermitted discharge that occurred:

(1) The cause of the discharge;

(2) Date, duration and volume of discharge (estimate if unknown);

(3) Description of the source (e.g., manhole, lift station);

(4) Location of the discharge, by latitude and longitude (or other appropriate method as approved by the Department);

(5) The ultimate destination of the flow (e.g., surface waterbody, municipal separate storm sewer to surface waterbody). Location should be shown on a USGS quad sheet or copy thereof; and

(6) Corrective actions taken and/or planned to eliminate future discharges.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

   The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

   The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

   a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the Permittee shall furnish the Director with an update of any information provided in the permit application.

   b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

   The Permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

E. SCHEDULE OF COMPLIANCE

1. Compliance with discharge limits

   The Permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

   COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. Schedule

   No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

   The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices (BMP)

   a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

   b. The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

   c. The Permittee shall prepare, submit for approval and implement a BMP Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Certified Operator

   The Permittee shall not operate any wastewater treatment plant unless the competency of the operator to operate such plant has been duly certified by the Director pursuant to AWPCA, and meets the requirements specified in ADEM Administrative Code, Rule 335-10-1.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

   The Permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

   The Permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

   (1) Enter upon the Permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

   (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permits;

   (3) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

   (4) Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

   a. Any bypass is prohibited except as provided in b. and c. below:

   b. A bypass is not prohibited if:

      (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

      (2) It enters the same receiving stream as the permitted outfall; and

      (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

   c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

      (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the Permittee is granted such authorization, and the Permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The Permittee has the burden of establishing that each of the conditions of Provision II. C. 1. b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that:

(i) An upset occurred;

(ii) The Permittee can identify the specific cause(s) of the upset;

(iii) The Permittee's facility was being properly operated at the time of the upset; and

(iv) The Permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The Permittee has the burden of establishing that each of the conditions of Provision II C. 2. a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I. A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a Permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude or negate the Permittee's responsibility to apply for, obtain, or comply with other Federal, State, or Local Government permits, certifications,or licenses or to preclude from obtaining other federal, state, or local approvals, including those applicable to other ADEM programs and regulations.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the

primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the Permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance With Statutes and Rules

   a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Boulevard Montgomery, Alabama 36110-2059.

   b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

   a. If the Permittee intends to continue to discharge beyond the expiration date of this permit, the Permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the Permittee does not intend to continue discharge beyond the expiration of this permit, the Permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

   b. Failure of the Permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

   Prior to any facility expansion, process modification or any significant change in the method of operation of the Permittee's treatment works, the Permittee shall provide the Director with information concerning the planned expansion, modification or change. The Permittee shall apply for a permit modification at least 180 days prior to any facility expansion, process modification, any significant change in the method of operation of the Permittee's treatment works or other actions that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant or could result in an additional discharge point. This condition applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

3. Transfer of Permit

   This permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

   a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

      (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

      (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

      (3) If modification or revocation and reissuance is requested by the Permittee and cause exists, the Director may grant the request.

   b. This permit may be modified during its term for cause, including but not limited to, the following:

      (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the Permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The Permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the Permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The Permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the Permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Suspension

This permit may be suspended during its term for noncompliance until the Permittee has taken action(s) necessary to achieve compliance.

7. Stay

The filing of a request by the Permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition, and the Permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the Permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

1. The Permittee shall not allow the introduction of wastewater, other than domestic wastewater, from a new direct discharger prior to approval and permitting, if applicable, of the discharge by the Department.
2. The Permittee shall not allow an existing indirect discharger to increase the quantity or change the character of its wastewater, other than domestic wastewater, prior to approval and permitting, if applicable, of the increased discharge by the Department.
3. The Permittee shall report to the Department any adverse impact caused or believed to be caused by an indirect discharger on the treatment process, quality of discharged water, or quality of sludge. Such report shall be submitted within seven days of the Permittee becoming aware of the adverse impacts.

H. PROHIBITIONS

The Permittee shall not allow, and shall take effective enforcement action to prevent and terminate, the introduction of any of the following into its treatment works by industrial users:

1. Pollutants which create a fire or explosion hazard in the treatment works;
2. Pollutants which will cause corrosive structural damage to the treatment works, or dischargers with a pH lower than 5.0 s.u., unless the works are specifically designed to accommodate such discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction of flow in sewers, or other interference with the treatment works;
4. Pollutants, including oxygen demanding pollutants, released in a discharge of such volume or strength as to cause interference in the treatment works;
5. Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference or in such quantities that the temperature of the treatment plant influent exceeds 40°C (104° F) unless the treatment plant is designed to accommodate such heat; and
6. Pollutants in amounts which exceed any applicable pretreatment standard under Section 307 of FWPCA or any approved revisions thereof.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

   Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

   Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

   a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA, and as such, any terms, conditions, or limitations of the permit are enforceable under state and federal law.

   b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes:

      (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

      (2) An action for damages;

      (3) An action for injunctive relief; or

      (4) An action for penalties.

   c. If the Permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the Permittee has made a timely and complete application for reissuance of the permit:

      (1) Initiate enforcement action based upon the permit which has been continued;

      (2) Issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

      (3) Reissue the new permit with appropriate conditions; or

      (4) Take other actions authorized by these rules and AWPCA.

4. Relief from Liability

   Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. Begun, or caused to begin as part of a continuous on-site construction program:

      (1) Any placement, assembly, or installation of facilities or equipment; or

      (2) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which are necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

4. Final plans and specifications for a waste treatment facility at a new source or new discharger, or a modification to an existing waste treatment facility must be submitted to and examined by the Department prior to initiating construction of such treatment facility by the Permittee.

5. Upon completion of construction of waste treatment facilities and prior to operation of such facilities, the Permittee shall submit to the Department a certification from a registered professional engineer, licensed to practice in the State of Alabama, that the treatment facilities have been built according to plans and specifications submitted to and examined by the Department.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the Permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification, and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation – means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.
4. AWPCA – means the Alabama Water Pollution Control Act.
5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass – means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Daily discharge – means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. Daily maximum – means the highest value of any individual sample result obtained during a day.
10. Daily minimum – means the lowest value of any individual sample result obtained during a day.
11. Day – means any consecutive 24-hour period.
12. Department – means the Alabama Department of Environmental Management.
13. Director – means the Director of the Department.
14. Discharge – means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(9).
15. Discharge Monitoring Report (DMR) – means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO – means dissolved oxygen.
17. 8HC – means 8-hour composite sample, including any of the following:
    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 1 hour over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. EPA – means the United States Environmental Protection Agency.
19. FC – means the pollutant parameter fecal coliform.
20. Flow – means the total volume of discharge in a 24-hour period.
21. FWPCA – means the Federal Water Pollution Control Act.
22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
26. MGD – means million gallons per day.
27. Monthly Average – means the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.
28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
    a. From which there is or may be a discharge of pollutants;
    b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and

c. Which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Notifiable sanitary sewer overflow – means an overflow, spill, release or diversion of wastewater from a sanitary sewer system that:

    a. Reaches a surface water of the State; or

    b. May imminently and substantially endanger human health based on potential for public exposure including but not limited to close proximity to public or private water supply wells or in areas where human contact would be likely to occur.

31. Permit application – means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

32. Point source – means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

33. Pollutant – includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

34. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

35. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

36. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

37. Severe property damage – means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

38. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset – means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters – means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground, or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week – means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. SLUDGE MANAGEMENT PRACTICES

1. Applicability

   a. Provisions of Provision IV.A. apply to a sewage sludge generated or treated in treatment works that is applied to agricultural and non-agricultural land, or that is otherwise distributed, marketed, incinerated, or disposed in landfills or surface disposal sites.

   b. Provisions of Provision IV.A. do not apply to:

      (1) Sewage sludge generated or treated in a privately owned treatment works operated in conjunction with industrial manufacturing and processing facilities and which receive no domestic wastewater.

      (2) Sewage sludge that is stored in surface impoundments located at the treatment works prior to ultimate disposal.

2. Submitting Information

   a. If applicable, the Permittee must submit annually with its Municipal Water Pollution Prevention (MWPP) report the following:

      (1) Type of sludge stabilization/digestion method;

      (2) Daily or annual sludge production (dry weight basis);

      (3) Ultimate sludge disposal practice(s).

   b. The Permittee shall provide sludge inventory data to the Director as requested. These data may include, but are not limited to, sludge quantity and quality reported in Provision IV.A.2.a as well as other specific analyses required to comply with State and Federal laws regarding solid and hazardous waste disposal.

   c. The Permittee shall give prior notice to the Director of at least 30 days of any change planned in the Permittee's sludge disposal practices.

3. Reopener or Modification

   a. Upon review of information provided by the Permittee as required by Provision IV.A.2. or, based on the results of an on-site inspection, the permit shall be subject to modification to incorporate appropriate requirements.

   b. If an applicable "acceptable management practice" or if a numerical limitation for a pollutant in sewage sludge promulgated under Section 405 of FWPCA is more stringent than the sludge pollutant limit or acceptable management practice in this permit. This permit shall be modified or revoked or reissued to conform to requirements promulgated under Section 405. The Permittee shall comply with the limitations no later than the compliance deadline specified in applicable regulations as required by Section 405 of FWPCA.

B. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

1. Chronic Toxicity Test

   a. The permittee shall perform short-term chronic toxicity tests on the wastewater at Outfalls 0012, 0013, or 0014, whichever is applicable.

   b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **97 percent** for Outfall 0012, **62 percent** for Outfall 0013, and **45 percent** for Outfall 0014 effluents. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year low flow period. The IWC shall be 97% or greater if the average daily stream flow is less than 4.64 cfs for each calendar day from the previous October to September. The IWC shall be 62% or greater if the average daily stream flow is less than 9.28 cfs and greater than or equal to 4.64 cfs for one calendar day from the previous October to September. The IWC shall be 45% or greater if the average daily stream flow is 9.28 cfs or greater for each calendar day from the previous October to September.

   c. Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and test samples at the 95% confidence level indicates chronic toxicity and shall constitute noncompliance with this permit.

2. General Test Requirements

   a. A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests. Samples shall be collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control

water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 (most current edition) or another control water selected by the Permittee and approved by the Department.

b. Test results shall be deemed unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period for the following:

(1) For testing with P. promelas:, effluent toxicity tests with control survival of less than 80% or if dry weight per surviving control organism is less than 0.25 mg;

(2) For testing with C. dubia:, if the number of young per surviving control organism is less than 15 or if less than 60% of surviving control females produce three broods; or

(3) If the other requirements of the EPA Test Procedure are not met.

c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are to be reported to the Department along with an explanation of the tests performed and the test results.

d. Toxicity tests shall be conducted for the duration of this permit in the month of **OCTOBER**. Should results from the Annual Toxicity test indicate that Outfall 0012, 0013, or 0014 exhibits chronic toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.4.a. In addition, the Permittee may then also be required to conduct toxicity testing in the months of JANUARY, APRIL, JULY, and OCTOBER.

3. Reporting Requirements

a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Sections 2 and 6 shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month that tests were performed.

4. Additional Testing Requirements

a. If chronic toxicity is indicated (i.e., noncompliance with permit limit), then the Permittee must perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date that the Permittee became aware of the permit noncompliance. The results of these follow-up tests shall be submitted to the Department no later than 28 days following the month the tests were performed.

b. After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols and guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022, and/or EPA/600/6-91/005F)

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Method 1000.0, shall be used for the fathead minnow (Pimephales promelas) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (Ceriodaphnia dubia) test.

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each DMR unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location and county
(2) Permit number
(3) Toxicity testing requirements of permit
(4) Name of receiving water body
(5) Contract laboratory information (if tests are performed under contract)
  (a) Name of firm
  (b) Telephone number

(c) Address
(6) Objective of test

b. Plant Operations

(1) Discharge Operating schedule (if other than continuous)
(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)
(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized
(2) End point(s) of test
(3) Deviations from referenced method, if any, and reason(s)
(4) Date and time test started
(5) Date and time test terminated
(6) Type and volume of test chambers
(7) Volume of solution per chamber
(8) Number of organisms per test chamber
(9) Number of replicate test chambers per treatment
(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)
(11) Specify if aeration was needed
(12) Feeding frequency, amount, and type of food
(13) Specify if (and how) pH control measures were implemented
(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name
(2) Life stage and age
(3) Source
(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source
(2) Date and time of most recent chronic reference toxicant test(s), raw data, and current control chart(s). (The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.)
(3) Dilution water utilized in reference toxicant test
(4) Results of reference toxicant test(s) (NOEC, IC25, etc.); report concentration-response relationship and evaluate test sensitivity
(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)
(3) Indicate statistical methods used to calculate endpoints
(4) Provide all physical and chemical data required by method
(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits
(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation.

C. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

1. If chlorine is not utilized for disinfection purposes, TRC monitoring under Part I of this Permit is not required. If TRC monitoring is not required (conditional monitoring), "*9" or "NODI = 9" (if hard copy) should be reported on the DMR forms.

2. Testing for TRC shall be conducted according to either the amperometric titration method or the DPD colorimetric method as specified in Section 408(C) or (E), Standards Methods for the Examination of Water and Wastewater, 18th edition. If chlorine is not detected prior to actual discharge to the receiving stream using one of these methods (i.e., the analytical result is less than the detection level), the Permittee shall report on the DMR form "*B", "NODI = B" (if hard copy), or "0". The Permittee shall then be considered to be in compliance with the daily maximum concentration limit for TRC.

3. This permit contains a maximum allowable TRC level in the effluent. The Permittee is responsible for determining the minimum TRC level needed in the chlorine contact chamber to comply with E.coli limits. The effluent shall be dechlorinated if necessary to meet the maximum allowable effluent TRC level.

4. The sample collection point for effluent TRC shall be at a point downstream of the chlorine contact chamber (downstream of dechlorination if applicable). The exact location is to be approved by the Director.

D. PLANT CLASSIFICATION

The Permittee shall report to the Director within 30 days of the effective date of this permit, the name, address and operator number of the certified wastewater operator in responsible charge of the facility. Unless specified elsewhere in this permit, this facility shall be classified in accordance with ADEM Admin. Code R. 335-10-1-.03.

E. POLLUTANT SCANS

The Permittee shall sample and analyze for the pollutants listed in 40 CFR 122 Appendix J Table 2. The Permittee shall provide data from a minimum of three samples collected within the four and one half years prior to submitting a permit application. Samples must be representative of the seasonal variation in the discharge from each outfall.

F. STORM WATER REQUIREMENTS

1. Prohibitions

a. The Permittee shall not allow the discharge of non-storm water into permitted storm water outfall(s) unless said discharge is already subject to an NPDES permit.

b. Pollutants removed in the course of treatment or control shall be disposed in a manner that complies with all applicable Department rules and regulations.

2. Operational and Management Practices

The permittee shall prepare and implement a Storm Water Pollution Prevention (SWPP) Plan within one year of the effective date of this permit.

a. In the SWPP Plan, the Permittee shall:

(1) Assess the treatment plant site by developing and presenting site drainage maps, materials inventory, and best management operational practices. The plan shall also include a description of all spill or leak sources;

(2) Describe mechanisms and procedures to prevent the contact of sewage sludge, screenings, raw or partially treated wastewater, or any other waste product or pollutant with storm water discharged from the facility;

(3) Provide for daily inspection on workdays of any structures that function to prevent storm water pollution or that remove pollutants from storm water;

(4) Provide for daily inspection of the facility in general to ensure that the SWPP Plan is continually implemented and effective;

(5) Include a Best Management Practices (BMP) Plan that, as a minimum, addresses housekeeping, preventative maintenance, spill prevention and response, and non-storm water discharges;

(6) Describe mechanisms and procedures to provide sediment control sufficient to prevent or control storm water pollution storm water by particles resulting from soil or sediment migration from the site due to significant clearing, grading, or excavation activities;

(7) Designate by position or name the person or persons responsible for the day to day implementation of the SWPP Plan; and

(8) Bear the signature of an individual meeting signatory requirements as defined in ADEM Administrative Code, Rule 335-6-6-.09.

b. The Director or his designee may notify the permittee at any time that the SWPP Plan is deficient and will require correction of the deficiency. The permittee shall correct any SWPP Plan deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

c. Administrative Procedures

(1) A copy of the SWPP Plan shall be maintained at the facility and shall be available for inspection by the Department.

(2) A log of daily inspections required by Provision IV.F.2.a.(3.) of the permit shall be maintained at the facility and shall be made available for inspection by the Department upon request. The log shall contain records of all inspections performed and each daily entry shall be signed by the person performing the inspection.

(3) The Permittee shall provide training for any personnel required to implement the SWPP Plan and shall retain documentation of such training at the facility. Training records for all personnel shall be available for inspection by the Department. Training shall be performed prior to the date implementation is required.

3. Monitoring Requirements

a. Storm water discharged through each storm water outfall shall be sampled once per calendar year, using first flush grab samples (FFGS) collected during the first 30 minutes of discharge.

b. The total volume of storm water discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for the storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained in accordance with Provision I.B.5. of this permit. The volume may be measured using flow measurement devices or may be estimated using any method approved in writing by the Department

G. SANITARY SEWER OVERFLOW RESPONSE PLAN

1. SSO Response Plan

Within 120 days of the effective date of this Permit, the Permittee shall develop a Sanitary Sewer Overflow (SSO) Response Plan to establish timely and effective methods for responding to notifiable sanitary sewer overflows. The SSO Response Plan shall address each of the following:

a. General Information:

(1) Approximate population of City/Town, if applicable

(2) Approximate number of customers served by the Permittee

(3) Identification of any subbasins designated by the Permittee, if applicable

(4) Identification of estimated linear feet of sanitary sewers

(5) Number of Pump/Lift Stations in the collection system

b. Responsibility Information:

(1) The title(s) and contact information of key position(s) who will coordinate the SSO response, including information for a backup coordinator in the event that the primary SSO coordinator is unavailable. The SSO coordinator is the person responsible for assessing the SSO and initiating a series of response actions based on the type, severity, and destination of the SSO, except for routine SSOs for which the coordinator may pre-approve written procedures. Routine SSOs are those for which the corrective action procedures are generally consistent.

(2) The title(s), and contact information of key position(s) who will respond to SSOs, including information for backup responder(s) in the event the primary responder(s) are unavailable (i.e., position(s) who provide notification to the Department, the public, the county health department, and other affected entities such as public water systems; position(s) responsible for organizing crews for response; position(s) responsible for addressing public inquiries)

c. SSO and Surface Water Assessment

(1) Identification of locations within the collection system at which an SSO is likely to occur (e.g., based upon historical SSOs, lift stations where electricity may be lost, etc.)

(2) A map of the general collection system area, including identification of surface waterbodies and the location(s) of public drinking water source(s). Mapping of all collection system piping, pump stations, etc. is not required; however, if this information is already available, it should be included.

(3) Identification of surface waterbodies within the collection system area which are classified as Swimming according to ADEM Admin. Code chap. 335-6-11. References available to assist in this requirement include: http://www.adem.state.al.us/alEnviroRegLaws/files/Division6Vol1.pdf and http://gis.adem.alabama.gov/ADEM_Dash/use_class/index.html

(4) Identification of surface waterbodies within the collection system area which are not classified as Swimming as indicated in paragraph c above, but are known locally as areas where swimming occurs or as areas that are heavily recreated

d. Public Reporting of SSOs

(1) Contact information for the public to report an SSO to the Permittee, during both normal and outside of normal business hours (e.g., telephone number, website, email address, etc.)

(2) Information requested from the person reporting an SSO to assist the Permittee in identifying the SSO (e.g., date, time, location, contact information)

(3) Procedures for communication of the SSO report to the appropriate positions for follow-up investigation and response, if necessary

e. Procedures to immediately notify the Department, the county health department, and other affected entities (such as public water systems) upon becoming aware of notifiable SSOs

f. Public Notification Methods for SSOs

(1) A listing of methods that are feasible, as determined by the Permittee, for public notifications (e.g., flyers distributed to nearby residents; signs posted at the location of the SSO, where the SSO enters a water of the state, and/or at a central public location; signs posted at fishing piers, boat launches, parks, swimming waterbodies, etc.; website and/or social media notifications; local print or radio and broadcast media notifications; "opt in" email, text message, or automated phone message notifications)

(a) If signage is a feasible method for public notification, procedures for use and removal of signage (e.g., availability and maintenance of signs, appropriate duration of postings)

(2) Minimum information to be included in public notifications (e.g., identification that an SSO has occurred, date, duration if known, estimated volume if known, location of the SSO by street address or other appropriate method, initial destination of the SSO)

(3) Procedures developed by the Permittee for determining the appropriate public notification method(s) based upon the potential for public exposure to health risks associated with the SSO

g. Standard Procedures shall be developed by the Permittee and shall include, at a minimum:

(1) General SSO Response Procedures (e.g., procedures for dispatching staff to assess/correct an SSO; procedures for routine SSO corrective actions such as those for sewer blockages, overflowing manholes, line breakages, pump station power failure, etc.; procedures for disinfection of affected area, if applicable);

(2) Procedures for collection and proper disposal of the SSO, if feasible.

(3) General procedures for coordinating instream water quality monitoring, including, but not limited to, procedures for mobilizing staff, collecting samples, and typical test methods should the Department or the Permittee determine monitoring is appropriate following an SSO. Identification of a contractor who will collect and analyze the sample(s) may be listed in lieu of the procedures.

(4) References to other documents (such as Standard Operating Procedures for SSO Responses) may be acceptable for this section; however, the referenced document shall be identified and shall be reviewed at a frequency of at least that required by the Administrative Procedures Section.

h. Date of the SSO Response Plan, dates of all modifications and/or reviews, the title and signature of the reviewer(s) for each date and the signature of the responsible official or the appropriate designee.

2. SSO Response Plan Implementation

Except as otherwise required by this Permit, the Permittee shall fully implement the SSO Response Plan as soon as practicable, but no later than 180 days after the effective date of this Permit.

3. Department Review of the SSO Response Plan

a. When requested by the Director or his designee, the Permittee shall make the SSO Response Plan available for review by the Department.

b. Upon review, the Director or his designee may notify the Permittee that the SSO Response Plan is deficient and require modification of the Plan.

c. Within thirty days of receipt of notification, or an alternate timeframe as approved by the Department, the Permittee shall modify any SSO Response Plan deficiency identified by the Director or his designee and shall certify to the Department that the modification has been made.

4. SSO Response Plan Administrative Procedures

a. The Permittee shall maintain a copy of the SSO Response Plan at the permitted facility or an alternate location approved by the Department in writing and shall make it available for inspection by the Department.

b. The Permittee shall make a copy of the SSO Response Plan available to the public upon written request within 30 days of such request. The Permittee may redact information which may present security issues, such as location of public water supplies, identification of specific details of vulnerabilities, employee information, etc.

c. The Permittee shall provide training for any personnel required to implement the SSO Response Plan and shall retain at the facility documentation of such training. This documentation shall be available for inspection by the Department. Training shall be provided for existing personnel prior to the date by which implementation of the SSO Response Plan is required and for new personnel as soon as possible. Should significant revisions be made to the SSO Response Plan, training regarding the revisions shall be conducted as soon as possible.

d. The Permittee shall complete a review and evaluation of the SSO Response Plan at least once every three years. Documentation of the SSO Response Plan review and evaluation shall be signed and dated by the responsible official or the appropriate designee as part of the SSO Response Plan.

H. SPECIAL REQUIREMENTS FOR PERMIT LIMITATIONS IN PART I

1. Effluent limits for Outfalls 0012, 0013, and 0014 shall apply as described in the limits pages in Part I. The Permittee must submit DMRs marked "No Discharge" to the Department monthly for the designated outfalls that were not applicable that month.

2. When calculating the reported stream flow rate using USGS #02406930 Shirtee Creek near Odena, Alabama, the J.Earl Ham WWTP discharge must be subtracted, then an additional 10% of the remaining flow should be subtracted.

I. SPECIAL REQUIREMENTS FOR USGS STREAM GAUGE

1. A United States Geological Survey (USGS) stream gauge shall be maintained to determine stream flow. The Permittee shall contract with the USGS for calibration and maintenance of the USGS stream gauge, unless another entity is providing funding for the USGS gauge.

2. A copy of the contract with the USGS, which includes calibration and maintenance of the gauge, and verification of payment shall be submitted to the Department so that they are received no later than January 31st of each year for the prior year. If another entity is providing funding for the USGS gauge, a statement verifying that the gauge has been calibrated and maintained by the USGS and the name of the entity that provided funding for the USGS gauge shall be submitted no later than January 31st of each year for the prior year.

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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FACT SHEET

APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE POLLUTANTS TO WATERS OF THE STATE OF ALABAMA

Date: November 8, 2018 **Prepared By:** Shanda Torbert

NPDES Permit No. AL0020001

1. **Name and Address of Applicant:**

   Utilities Board of the City of Sylacauga
   Post Office Box 207
   Sylacauga, AL 35150

2. **Name and Address of Facility:**

   J Earl Ham WWTP
   610 Old Sylacauga Highway
   Sylacauga, Alabama 35150

3. **Description of Applicant's Type of Facility and/or Activity Generating the Discharge:**

   Waste Water Treatment Plant

4. **Applicant's Receiving Waters**

Receiving Waters	Classification
SHIRTEE CREEK	F&W

   For the Outfall latitude and longitude see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

6. **PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS**

   a. **Comment Period**

   The Alabama Department of Environmental Management proposes to issue this NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

   Interested persons are invited to submit written comments on the draft permit to the following address:

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

All comments received prior to the closure of the public notice period (see public notice for date) will be considered in the formulation of the final determination with regard to this permit.

b. Public Hearing

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

c. Issuance of the Permit

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The permit record, including the response to comments, will be available to the public via the eFile System (**http://app.adem.alabama.gov/eFile/**) or an appointment to review the record may be made by writing the Permits and Services Division at the above address.**

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

d. Appeal Procedures

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

NPDES PERMIT RATIONALE

NPDES Permit No: **AL0020001** Date: November 8, 2018

Permit Applicant: Utilities Board of the City of Sylacauga
Post Office Box 207
Sylacauga, Alabama 35150

Location: J Earl Ham WWTP
610 Old Sylacauga Highway
Sylacauga, Alabama 35150
Talladega County

Draft Permit is: Initial Issuance:
Reissuance due to expiration: X
Modification of existing permit:
Revocation and Reissuance:

Basis for Limitations: Water Quality Model: $CBOD_5$, NH_3N, DO, and receiving stream flow rate
Reissuance with no modification: $CBOD_5$, NH_3N, DO, TSS, pH, TSS % Removal, $CBOD_5$ % Removal, and receiving stream flow rate
Instream calculation at 7Q10: IWC ≈ 97% (0012), 62% (0013), and 45% (0014)
Toxicity based: TRC
Secondary Treatment Levels: TSS and Percent Removals
Other (described below): E. coli, Copper, pH

Design Flow in Million Gallons per Day: 4.8 MGD

Major: Yes

Description of Discharge: Outfall Numbers 0012, 0013, and 0014; Effluent discharges to Shirtee Creek, which is classified as Fish and Wildlife (F&W).

Outfall Numbers 002S and 003S; Storm water discharges to an UT to Shirtee Creek, which is classified as Fish and Wildlife (F&W).

Outfall Number 004S; Storm water discharges to Shirtee Creek, which is classified as Fish and Wildlife (F&W).

Discussion: This permit is a reissuance due to expiration. This permit is tiered to account for additional headwater flow from a quarry discharge upstream of the WWTP discharge. The effluent limits for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Ammonia as Nitrogen (NH_3N), and Dissolved Oxygen (DO) were developed based on Waste Load Allocation (WLA) model completed by the Department's Water Quality Branch on December 2, 2010. There are seasonal limits for the 7Q10

conditions and limits for headwater flow conditions of 4.64 cfs (3 MGD) and 9.28 cfs (6 MGD). The summer season is May through November while the winter season is December through April.

4.8 MGD with streamflow< 0.4.64 cfs – Outfall 0012

The pH limits for Outfall 0012 were developed to be supportive of the water-use classification of the receiving stream. The daily maximum pH limit is 8.5 s.u. and the daily minimum limit is 6.0 s.u. The monitoring frequency will be three times per week.

The discharge limits for DO, $CBOD_5$, and NH_3N for Outfall 0012 were developed by the Municipal Permitting Section based on a Waste Load Allocation (WLA) model completed by the Department's Water Quality Branch on December 2, 2010. The summer monthly average limits for $CBOD_5$ and NH_3N are 13 mg/l and 2.5 mg/l, respectively with a monitoring frequency of three times per week. The winter monthly average limits for $CBOD_5$ and NH_3N are 9 mg/l and 4 mg/l, respectively with a monitoring frequency of three times per week. The daily minimum limit for DO is 6.0 mg/l with a monitoring frequency of three times per week.

The monthly average TSS limit is established at 30.0 mg/l based on 40 CFR 133.102. The monitoring frequency is three times per week. Minimum percent removal limits of 85 percent are imposed for TSS and $CBOD_5$ to be calculated once per month. The minimum percent removal limits are based on 40 CFR 133.102.

The Department revised bacteriological criteria in ADEM Administrative Code R.335-6-10-.09. As a result, this permit includes E. coli limits and seasons that are consistent with the revised regulations. The imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since Shirtee Creek is classified as Fish & Wildlife, the E. coli limits for summer (May through October) are 126 col/100 mL (monthly average) and 298 col/100 mL (daily maximum), while the limits for the winter (November through April) are 548 col/ 100 mL (monthly average) and 2507 col/100 mL (daily maximum). The monitoring frequency will be three times per week.

This permit imposes monthly monitoring for the following nutrient-related parameters: Total Kjeldahl Nitrogen (TKN), Total Phosphorus (TP), and Nitrate plus Nitrite-Nitrogen (NO_2+NO_3N). Monitoring for these nutrient-related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose nutrient limits on this discharge. The monitoring frequency will be once per month.

Total Residual Chlorine (TRC) limits are included in the permit. Monthly average and daily maximum TRC limitations of 0.011 mg/L and 0.019 mg/L, respectively, are being imposed at Outfall 0012. The TRC limits were developed based on EPA suggested WQ criteria and the Department's Permit Development Rationale, and should be protective of acute and chronic toxicity criteria in the receiving stream. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR. In accordance with a letter date August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a Total Residual Chlorine measurement below 0.05 mg/L shall be considered below detection for compliance purposes. The monitoring frequency will be three times per week.

Chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed in this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e., growth and reproduction). Chronic toxicity testing at the IWC of 97 percent is required once per year during the month of October, if the average daily stream flow is less than 4.64 cfs for each calendar day from the previous October to September.

This Permittee treats both municipal and industrial wastewater, and is classified as a major municipality. Therefore, the Department completed a Reasonable Potential Analysis (RPA) of the wastewater data submitted in Part D of the Permittee's application (i.e., per 40 CFR Par 122 Appendix J – Table 2) and data from the Permittee's Discharge Monitoring Reports. The RPA indicated whether any pollutants in the treated effluent have the potential to contribute to excursions of Alabama's in-stream water quality standards. The RPA was based on a 7Q10 of 0.248 cfs, a mean annual flow of 30.6 cfs, and a hardness of 147 mg/L. Background instream hardness data was provided by the Permittee. Additional instream background data was not available. For this discharge, the RPA indicates that the following pollutant in the treated effluent may contribute to excursions of Alabama's in-stream water quality standards: Total Recoverable Copper. Copper has monthly average and daily maximum limits for 33.1 µg/L and 51.0 µg/L. The monitoring frequency is once per month.

Stream flow rate will be monitored continuously, seven days per week. The limits for Outfall 0012 are applicable if any average daily stream flow is less than 4.64 cfs during each day of the calendar month. Effluent flow is to be monitored continuously, seven days per week. If Outfall 0012 is applicable, DMRs for 0013 and 0014 should be submitted with "No Discharge" marked for the month.

4.8 MGD with 4.64cfs ≤ stream flow < 9.28 cfs – Outfall 0013

The pH limits for Outfall 0013 were developed to be supportive of the water-use classification of the receiving stream. The daily maximum pH limit is 8.5 s.u. and the daily minimum limit is 6.0 s.u. The monitoring frequency will be three times per week.

The discharge limits for DO, $CBOD_5$, and NH_3N for outfall 0013 were developed by the Municipal Permitting Section based on a WLA model completed by the Department's Water Quality Branch on December 2, 2010. The summer monthly average limits for $CBOD_5$ and NH_3N are 10 mg/l and 3.5 mg/l, respectively, with a monitoring frequency of three times per week. The winter monthly average limits for $CBOD_5$ and NH_3N are 7 mg/l and 3.5 mg/l, respectively, with a monitoring frequency of three times per week. The daily minimum limit for DO is 6.0 mg/l with a monitoring frequency of three times per week.

The monthly average TSS limit is established at 30.0 mg/l based on 40 CFR 133.102. The monitoring frequency is three times per week. Minimum percent removal limits of 85 percent are imposed for TSS and $CBOD_5$ to be calculated once per month. The minimum percent removal limits are based on 40 CFR 133.102.

The Department revised bacteriological criteria in ADEM Administrative Code R.335-6-10-.09. As a result, this permit includes E. coli limits and seasons that are consistent with the revised regulations. The imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since Shirtee Creek is classified as Fish & Wildlife, the E. coli limits for summer (May through October) are 126 col/100 mL (monthly average) and 298 col/100 mL (daily maximum), while the limits for the winter (November through April) are 548 col/ 100 mL (monthly average) and 2507 col/100 mL (daily maximum). The monitoring frequency will be three times per week.

This permit imposes monthly monitoring for the following nutrient-related parameters: TKN, TP, and NO_2+NO_3N. Monitoring for these nutrient-related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose nutrient limits on this discharge. The monitoring frequency will be once per month.

Total Residual Chlorine (TRC) limits are included in the permit. Monthly average and daily maximum TRC limitations of 0.018 mg/l and 0.031 mg/l, respectively, are being imposed at Outfall 0013. The TRC limits were developed based on EPA suggested WQ criteria and the Department's Permit Development Rationale, and should be protective of acute and chronic toxicity criteria in the receiving stream. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR. In accordance with a letter date August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a Total Residual Chlorine measurement below 0.05 mg/L shall be considered below detection for compliance purposes. The monitoring frequency will be three times per week.

Chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed in this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e., growth and reproduction). Chronic toxicity testing at the IWC of 62 percent is required once per year during the month of October, if the average daily stream flow is less than 9.28 cfs and greater than or equal to 4.64 cfs for one calendar day from the previous October to September.

This Permittee treats both municipal and industrial wastewater, and is classified as a major municipality. Therefore, the Department completed a Reasonable Potential Analysis (RPA) of the wastewater data submitted in Part D of the Permittee's application (i.e., per 40 CFR Par 122 Appendix J – Table 2) and data from the Permittee's Discharge Monitoring Reports. The RPA indicated whether any pollutants in the treated effluent have the potential to contribute to excursions of Alabama's in-stream water quality standards. The RPA was based on a 7Q10 of 4.64 cfs, a mean annual flow of 30.6 cfs, and a hardness of 147 mg/L. Background instream hardness data was provided by the Permittee. Additional instream background data was not available. For this discharge, the RPA indicates that the following pollutant in the treated effluent may contribute to excursions of Alabama's in-stream water quality standards: Total Recoverable Copper. Copper has monthly average and daily maximum limits for 52.1 µg/L and 73.1 µg/L. The monitoring frequency is once per month.

Stream flow rate will be monitored continuously, seven days per week. The limits for Outfall 0013 are applicable if any average daily stream flow is less than 9.28 cfs but greater than 4.64 cfs during each day of the calendar month. Effluent flow is to be monitored continuously, seven days per week. If Outfall 0013 is applicable, DMRs for 0012 and 0014 should be submitted with "No Discharge" marked for the month.

4.8 MGD with stream flow ≥ 9.28 cfs – Outfall 0014

The pH limits for Outfall 0014 were developed to be supportive of the water-use classification of the receiving stream. The daily maximum pH limit is 8.5 s.u. and the daily minimum limit is 6.0 s.u. The monitoring frequency will be three times per week.

The discharge limits for DO, $CBOD_5$, and NH_3N for outfall 0014 were developed by the Municipal Permitting Section based on a WLA model completed by the Department's Water Quality Branch on December 2, 2010. The summer monthly average limits for $CBOD_5$ and NH_3N are 8 mg/l and 5 mg/l, respectively, with a monitoring frequency of three times per week. The winter monthly average limits for $CBOD_5$ and NH_3N are 7 mg/l and 3 mg/l, respectively, with a monitoring frequency of three times per week. The daily minimum limit for DO is 6.0 mg/l with a monitoring frequency of three times per week.

The monthly average TSS limit is established at 30.0 mg/l based on 40 CFR 133.102. The monitoring frequency is three times per week. Minimum percent removal limits of 85 percent are imposed for TSS and $CBOD_5$ to be calculated once per month. The minimum percent removal limits are based on 40 CFR 133.102.

The Department revised bacteriological criteria in ADEM Administrative Code R.335-6-10-.09. As a result, this permit includes E. coli limits and seasons that are consistent with the revised regulations. The imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since Shirtee Creek is classified as Fish & Wildlife, the E. coli limits for summer (May through October) are 126 col/100 mL (monthly average) and 298 col/100 mL (daily maximum), while the limits for the winter (November through April) are 548 col/ 100 mL (monthly average) and 2507 col/100 mL (daily maximum). The monitoring frequency will be three times per week.

This permit imposes monthly monitoring for the following nutrient-related parameters: TKN, TP, and NO_2+NO_3-N. Monitoring for these nutrient-related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose nutrient limits on this discharge. The monitoring frequency will be once per month.

Total Residual Chlorine (TRC) limits are included in the permit. Monthly average and daily maximum TRC limitations of 0.025 mg/l and 0.043 mg/l, respectively, are being imposed at Outfall 0014. The TRC limits were developed based on EPA suggested WQ criteria and the Department's Permit Development Rationale, and should be protective of acute and chronic toxicity criteria in the receiving stream. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR. In accordance with a letter date August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a Total Residual Chlorine measurement below 0.05 mg/L shall be considered below detection for compliance purposes. The monitoring frequency will be three times per week.

Chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed in this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e., growth and reproduction). Chronic toxicity testing at the IWC of 45 percent is required once per year during the month of October, if the average daily stream flow is 9.28cfs or greater for each calendar day from the previous October to September.

This Permittee treats both municipal and industrial wastewater, and is classified as a major municipality. Therefore, the Department completed a Reasonable Potential Analysis (RPA) of the wastewater data submitted in Part D of the Permittee's application (i.e., per 40 CFR Par 122 Appendix J – Table 2) and data from the Permittee's Discharge Monitoring Reports. The RPA indicated whether any pollutants in the treated effluent have the potential to contribute to excursions of Alabama's in-stream water quality standards. The RPA was based on a 7Q10 of 9.28 cfs, a mean annual flow of 30.6 cfs, and a hardness of 147 mg/L. Background instream hardness data was provided by the Permittee. Additional instream background data was not available. For this discharge, the RPA indicates that the following pollutant in the treated effluent may contribute to excursions of Alabama's in-stream water quality standards: Total Recoverable Copper. Copper has monthly average and daily maximum limits for 72.1 µg/L and 96.4 µg/L. The monitoring frequency is once per month.

Stream flow rate will be monitored seven days per week. The limits for Outfall 0014 are applicable if any effluent flow average daily stream flow is greater than 9.28 cfs during each day of the calendar month. If Outfall 0014 is applicable, DMRs for 0012 and 0013 should be submitted with "No Discharge" marked for the month.

The receiving stream is the Shirtee Creek and it is a Tier I waterbody. The stream is on the current 303(d) list for impaired waterbodies for Total Dissolved Solids and Pathogens (E.coli). The current permit limits are considered protective of the stream and should not contribute to the impairments. There are no TMDLs affecting this facility.

Storm water monitoring is being imposed this permit based on 40 CFR Part 122. The designated outfalls for storm water monitoring are 003S through 004S. Storm water monitoring will be required on an annual basis.

ADEM Administrative Rule 335-6-10-.12 requires applicants to new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new discharge or expanded discharge to a Tier II water, so the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

Prepared by: Torbert

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**J. Earl Ham WWTP**	
NPDES Permit Number:	**AL0020001**	
Receiving Stream:	**Shirtee Creek**	
Facility Design Flow (Qw):	**4.800 MGD**	
Receiving Stream 7Q10:	**0.248 cfs**	
Receiving Stream 1Q10:	**0.186 cfs**	**(Estimated at 0.75 * 7Q10)**
Winter Headwater Flow (WHF):	**0.774 cfs**	
Summer Temperature for CCC:	**28 deg. Celsius**	
Winter Temperature for CCC:	**18 deg. Celsius**	
Headwater Background NH3-N Level:	**0.14 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter):	**N./A.**	

The Stream Dilution Ration (SDR) is calculated using the 7Q10 for all stream classifications.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{96.77\%}$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the Ammonia Toxicity Protocol and the General Guidance for *Writing Water Quality Based Toxicity Permits.*

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Qw}{7Q10 + Qw}$$

= **96.77%** **Effluent-Dominated, CCC Applies**

Criterion Maximum Concentration (CMC): $CMC=0.411/(1+10(7.204-pH)) + 58.4/(1+10(pH-7.204))$

Criterion Continuous Concentration (CCC): $CCC=[0.0577/(1+10(7.688-pH)) + 2.487/(1+10(pH-7.688))] * Min[2.85,1.45*10(0.028*(25-T))]$

	CMC	CCC
Allowable Summer Instream NH3-N:	**36.09 mg/l**	**2.48 mg/l**
Allowable Winter Instream NH3-N:	**36.09 mg/l**	**4.72 mg/l**

$$\text{Summer NH3-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH3-N}) * (7Q10 + Qw)] - [(\text{Headwater NH3-N}) * (7Q10)]}{Qw}$$

= **2.6 mg/l NH3-N at 7Q10**

$$\text{Winter NH3-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH3-N}) * (WHF + Qw)] - [(\text{Headwater NH3-N}) * (WHF)]}{Qw}$$

= **5.2 mg/l NH3-N at Winter Flow**

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**2.50 mg/l NH3-N**	**2.60 mg/l NH3-N**
Winter	**4.00 mg/l NH3-N**	**5.20 mg/l NH3-N**

Summer: The DO based limit of 2.50 mg/l NH3-N applies.
Winter: The DO based limit of 4.00 mg/l NH3-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less.
Chronic toxicity testing is specified for all other situations requiring toxicity testing.

Chronic toxicity testing is required

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **96.77%**

Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)
Applicable Stream Classification: **Fish & Wildlife**
Disinfection Type: **Chlorination**
Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)		
Monthly limit as monthly average (November through April):	548	**548**
Monthly limit as monthly average (May through October):	126	**126**
Daily Max (November through April):	2507	**2507**
Daily Max (May through October):	298	**298**
Enterococci (applies to Coastal)		
Monthly limit as geometric mean (November through April):	Not applicable	**Not applicable**
Monthly limit as geometric mean (May through October):	Not applicable	**Not applicable**
Daily Max (November through April):	Not applicable	**Not applicable**
Daily Max (May through October):	Not applicable	**Not applicable**

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.011 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.019 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Shanda Torbert Date: 11/7/2018

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**J. Earl Ham WWTP**	
NPDES Permit Number:	**AL0020001**	
Receiving Stream:	**Shirtee Creek**	
Facility Design Flow (Qw):	**4.800 MGD**	
Receiving Stream 7Q10:	**4.640 cfs**	Minimum Headwater Flow
Receiving Stream 1Q10:	**4.640 cfs**	Minimum Headwater Flow
Winter Headwater Flow (WHF):	**4.640 cfs**	Minimum Headwater Flow
Summer Temperature for CCC:	**28 deg. Celsius**	
Winter Temperature for CCC:	**18 deg. Celsius**	
Headwater Background NH3-N Level:	**0.14 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter):	**N./A.**	

The Stream Dilution Ration (SDR) is calculated using the 7Q10 for all stream classifications.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{61.55\%}$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the Ammonia Toxicity Protocol and the General Guidance for *Writing Water Quality Based Toxicity Permits.*

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Qw}{7Q10 + Qw}$$

$$= \textbf{61.55\%} \qquad \textbf{Effluent-Dominated, CCC Applies}$$

Criterion Maximum Concentration (CMC): $CMC=0.411/(1+10(7.204-pH)) + 58.4/(1+10(pH-7.204))$

Criterion Continuous Concentration (CCC): $CCC=[0.0577/(1+10(7.688-pH)) + 2.487/(1+10(pH-7.688))] * Min[2.85,1.45*10(0.028*(25-T))]$

	CMC	CCC
Allowable Summer Instream NH3-N:	**36.09 mg/l**	**2.48 mg/l**
Allowable Winter Instream NH3-N:	**36.09 mg/l**	**4.72 mg/l**

$$\text{Summer NH3-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH3-N}) * (7Q10 + Qw)] - [(\text{Headwater NH3-N}) * (7Q10)]}{Qw}$$

$$= \textbf{4.0 mg/l NH3-N at 7Q10}$$

$$\text{Winter NH3-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH3-N}) * (WHF + Qw)] - [(\text{Headwater NH3-N}) * (WHF)]}{Qw}$$

$$= \textbf{5.2 mg/l NH3-N at Winter Flow}$$

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**3.50 mg/l NH3-N**	**4.00 mg/l NH3-N**
Winter	**3.50 mg/l NH3-N**	**5.20 mg/l NH3-N**

Summer: The DO based limit of 3.50 mg/l NH3-N applies.
Winter: The DO based limit of 3.50 mg/l NH3-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less.
Chronic toxicity testing is specified for all other situations requiring toxicity testing.

Chronic toxicity testing is required

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **61.55%** Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)
Applicable Stream Classification: **Fish & Wildlife**
Disinfection Type: **Chlorination**
Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)		
Monthly limit as monthly average (November through April):	548	**548**
Monthly limit as monthly average (May through October):	126	**126**
Daily Max (November through April):	2507	**2507**
Daily Max (May through October):	298	**298**
Enterococci (applies to Coastal)		
Monthly limit as geometric mean (November through April):	Not applicable	**Not applicable**
Monthly limit as geometric mean (May through October):	Not applicable	**Not applicable**
Daily Max (November through April):	Not applicable	**Not applicable**
Daily Max (May through October):	Not applicable	**Not applicable**

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.018 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.031 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Shanda Torbert Date: 11/7/2018

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**J. Earl Ham WWTP**	
NPDES Permit Number:	**AL0020001**	
Receiving Stream:	**Shirtee Creek**	
Facility Design Flow (Qw):	**4.800 MGD**	
Receiving Stream 7Q10:	**9.280 cfs**	Minimum Headwater Flow
Receiving Stream 1Q10:	**9.280 cfs**	Minimum Headwater Flow
Winter Headwater Flow (WHF):	**9.280 cfs**	Minimum Headwater Flow
Summer Temperature for CCC:	**28 deg. Celsius**	
Winter Temperature for CCC:	**18 deg. Celsius**	
Headwater Background NH3-N Level:	**0.14 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter):	**N./A.**	

The Stream Dilution Ration (SDR) is calculated using the 7Q10 for all stream classifications.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{44.45\%}$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the Ammonia Toxicity Protocol and the General Guidance for *Writing Water Quality Based Toxicity Permits.*

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Qw}{7Q10 + Qw}$$

= **44.45%** **Effluent-Dominated, CCC Applies**

Criterion Maximum Concentration (CMC): CMC=0.411/(1+10(7.204-pH)) + 58.4/(1+10(pH-7.204))
Criterion Continuous Concentration (CCC): CCC=[0.0577/(1+10(7.688-pH)) + 2.487/(1+10(pH-7.688))] * Min[2.85,1.45*10(0.028*(25-T))]

	CMC	CCC
Allowable Summer Instream NH3-N:	**36.09 mg/l**	**2.48 mg/l**
Allowable Winter Instream NH3-N:	**36.09 mg/l**	**4.72 mg/l**

$$\text{Summer NH3-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH3-N}) * (7Q10 + Qw)] - [(\text{Headwater NH3-N}) * (7Q10)]}{Qw}$$

= **5.4 mg/l NH3-N at 7Q10**

$$\text{Winter NH3-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH3-N}) * (WHF + Qw)] - [(\text{Headwater NH3-N}) * (WHF)]}{Qw}$$

= **5.2 mg/l NH3-N at Winter Flow**

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**5.00 mg/l NH3-N**	**5.40 mg/l NH3-N**
Winter	**3.00 mg/l NH3-N**	**5.20 mg/l NH3-N**

Summer: The DO based limit of 5.00 mg/l NH3-N applies.
Winter: The DO based limit of 3.00 mg/l NH3-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less.
Chronic toxicity testing is specified for all other situations requiring toxicity testing.

Chronic toxicity testing is required

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **44.45%** Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)
Applicable Stream Classification: **Fish & Wildlife**
Disinfection Type: **Chlorination**
Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)		
Monthly limit as monthly average (November through April):	548	**548**
Monthly limit as monthly average (May through October):	126	**126**
Daily Max (November through April):	2507	**2507**
Daily Max (May through October):	298	**298**
Enterococci (applies to Coastal)		
Monthly limit as geometric mean (November through April):	Not applicable	**Not applicable**
Monthly limit as geometric mean (May through October):	Not applicable	**Not applicable**
Daily Max (November through April):	Not applicable	**Not applicable**
Daily Max (May through October):	Not applicable	**Not applicable**

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.025 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.043 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Shanda Torbert Date: 11/7/2018

Facility Name: **Sylacauga J. Earl Ham WWTP - Outfall 0012**

NPDES No.: **AL0020001**

8/13/2017

$Q_d * C_d + Q_{d2} * C_{d2} + Q_s * C_s = Q_r * C_r$

ID	Pollutant	Carcinogen "yes"	Type	Background from upstream source (C_{d2}) Daily Max ug/l	Background from upstream source (C_{d2}) Monthly Ave ug/l	Background Instream (C_s) Daily Max ug/l	Background Instream (C_s) Monthly Ave ug/l	**Enter** Max Daily Discharge as reported by Applicant (C_d) Max ug/l	**Enter** Avg Daily Discharge as reported by Applicant (C_d) Ave ug/l	Partition Coefficient (Stream / Lake)
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	75.4	25.96	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0.0025	0.0018	0.302
10	Nickel**		Metals	0	0	0	0	0	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	44	21	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	30	20	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	179000	163000	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	5.65	2.98	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	24.3	14.67	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	12.6	7.16	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichloroethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dinitro-2-methylophenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Pthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

4.8	Enter Q_d = wastewater discharge flow from facility (MGD)
7.4266992	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
0.248	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
0.186	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
30.6	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
0.774	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Last	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_d +Qd2+Q_s	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
147	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

December 11, 2018

Facility Name: Sylacauga J. Earl Ham WWTP - Outfall 0012

NPDES No.: AL0020001

Freshwater F&W classification						Freshwater Acute (µg/l) Q_s =1Q10					Freshwater Chronic (µg/l) Q_s = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max	Max Daily Discharge as reported by Applicant (C_{max})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{mon})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{ave})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_t)	Draft Permit Limit (C_{ave})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	3.86E+02	7.72E+01	No
2	Arsenic		YES	0	0		607.169	121.434	No	0	0	201.324	270.050	54.010	No	3.03E-01	1.55E+00	3.10E-01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0		12.719	2.544	No	0	0	1.302	1.408	0.282	No	-	-	-	-
5	Chromium/ Chromium III			0	0		3812.862	762.572	No	0	0	493.857	500.014	100.003	No	-	-	-	-
6	Chromium/ Chromium VI			0	0		16.401	3.280	No	0	0	11.000	11.367	2.273	No	-	-	-	-
7	Copper	YES		0	75.4	49.785	51.042	10.208	Yes	0	25.96	32.081	33.152	6.630	Yes	-	-	-	-
8	Lead			0	0		487.537	97.507	No	0	0	18.534	19.153	3.831	No	-	-	-	-
9	Mercury			0	0.0025		2.460	0.492	No	0	0.0018	0.012	0.012	0.002	No	4.24E-02	4.38E-02	8.77E-03	No
10	Nickel			0	0		1316.638	263.328	No	0	0	142.665	147.429	29.486	No	9.93E+02	1.03E+03	2.05E+02	No
11	Selenium			0	0		20.501	4.100	No	0	0	5.000	5.167	1.033	No	2.45E+03	2.51E+03	5.02E+02	No
12	Silver			0	0		6.397	1.279	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	2.74E-01	2.83E-01	5.65E-02	No
14	Zinc			0	44	492.183	504.489	100.898	No	0	21	496.189	512.758	102.552	No	1.48E+04	1.54E+04	3.08E+03	No
15	Cyanide			0	0		22.551	4.510	No	0	0	5.200	5.374	1.075	No	8.33E+03	9.65E+03	1.93E+03	No
16	Total Phenolic Compounds			0	30	-	-	-	-	0	20	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	179000	-	-	-	-	0	163000	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	5.61E+00	1.12E+00	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.44E-01	7.37E-01	1.47E-01	No
20	Aldrin		YES	0	0		3.075	0.615	No	0	0	-	-	-	-	2.84E-05	1.50E-04	3.01E-05	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.85E+01	7.92E+01	1.58E+01	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.86E+01	4.03E+02	8.07E+01	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.57E-01	4.80E+00	9.80E-01	No
24	Chlordane		YES	0	0	2.400	2.460	0.492	No	0	0	0.0043	0.004	0.001	No	4.73E-04	2.42E-03	4.84E-04	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	9.06E+02	9.36E+02	1.87E+02	No
26	Chlorodibromo-Methane		YES	0	5.65	-	-	-	-	0	2.98	-	-	-	-	7.41E+00	3.79E+01	7.58E+00	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	24.3	-	-	-	-	0	14.67	-	-	-	-	1.02E+02	5.22E+02	1.04E+02	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.81E-04	9.29E-04	1.86E-04	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E-04	6.56E-04	1.31E-04	No
32	4,4' - DDT		YES	0	0	1.100	1.128	0.226	No	0	0	0.001	0.001	0.000	No	1.28E-04	6.56E-04	1.31E-04	No
33	Dichlorobromo-Methane		YES	0	12.6	-	-	-	-	0	7.16	-	-	-	-	1.00E+01	5.14E+01	1.03E+01	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.47E+01	1.09E+02	2.19E+01	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	6.10E+03	1.22E+03	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.17E+03	2.13E+04	4.27E+03	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	8.48E+00	8.78E+00	1.76E+00	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.23E+01	1.27E+01	2.54E+00	No
40	Dieldrin		YES	0	0	0.240	0.246	0.049	No	0	0	0.056	0.058	0.012	No	3.32E-05	1.60E-04	3.20E-05	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E+03	1.29E+03	2.57E+02	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	9.00E+02	1.80E+02	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.46E+02	1.77E+03	3.54E+02	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.33E+00	1.19E+01	2.39E+00	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	9.82E+00	1.96E+00	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	6.72E+03	9.01E+03	1.80E+03	No
48	Toxaphene		YES	0	0	0.730	0.748	0.150	No	0	0	0.0002	0.000	0.000	No	1.62E-04	8.29E-04	1.66E-04	No
49	Tributyltin (TBT)		YES	0	0.460	0.460	0.472	0.094	No	0	0	0.072	0.074	0.015	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.10E+00	4.66E+01	9.32E+00	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.75E+01	8.95E+01	1.79E+01	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.42E+00	7.29E+00	1.46E+00	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+01	9.00E+01	1.80E+01	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	1.72E+02	1.76E+02	3.55E+01	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	4.98E+02	5.14E+02	1.03E+02	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.22E+03	6.43E+02	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.65E+02	8.47E+02	1.69E+02	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.67E-06	1.37E-07	2.73E-08	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	8.942	1.788	No	0	0	6.693	8.918	1.383	No	1.77E+00	9.05E+00	1.81E+00	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.06E+05	5.17E+05	1.03E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E+00	7.24E+00	1.45E+00	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	5.78E+02	5.98E+02	1.20E+02	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	2.41E+04	4.82E+03	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	1.20E-04	2.40E-05	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.10E-02	2.20E-03	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.10E-02	2.20E-03	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.07E-01	1.57E+00	3.15E-01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.78E+04	3.90E+04	7.81E+03	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E+00	6.56E+00	1.31E+00	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+03	1.16E+03	2.33E+02	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	9.24E+02	9.55E+02	1.91E+02	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	2.71E+03	5.42E+02	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.56E+02	7.81E+02	1.56E+02	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	5.81E+02	1.16E+02	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	1.16E+02	2.32E+01	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.65E+02	8.51E+02	1.70E+02	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E+04	2.64E+04	5.28E+03	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+05	6.70E+05	1.34E+05	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.96E+00	1.01E+01	2.03E+00	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	1.21E-01	2.42E-02	No
97	Endosulfan (alpha)		YES	0	0	0.22	0.226	0.045	No	0	0	0.056	0.058	0.012	No	2.56E+01	2.65E+02	5.31E+01	No
98	Endosulfan (beta)		YES	0	0	0.22	0.226	0.045	No	0	0	0.056	0.058	0.012	No	2.56E+01	2.65E+02	5.31E+01	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.56E+01	2.65E+02	5.31E+01	No
100	Endrin		YES	0	0	0.086	0.086	0.018	No	0	0	0.036	0.037	0.007	No	1.75E-01	1.81E-01	3.61E-02	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.73E-01	9.03E+01	1.81E-01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	3.12E+01	8.39E+01	1.68E+01	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.22E+03	6.43E+02	No
104	Heptochlor		YES	0	0	0.52	0.533	0.107	No	0	0	0.0038	0.004	0.001	No	1.63E-05	2.37E-04	4.74E-05	No
105	Heptachlor Epoxide		YES	0	0	0.52	0.533	0.107	No	0	0	0.0038	0.004	0.001	No	2.29E-05	1.17E-04	2.34E-05	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.46E-04	8.59E-04	1.72E-04	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.08E+01	5.51E+01	1.10E+01	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.38E-03	1.46E-02	2.92E-03	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.67E-03	5.11E-02	1.02E-02	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	0.974	0.195	No	0	0	-	-	-	-	1.08E+00	5.51E+00	1.10E+00	No
111	Hexachlorocyclopentadiene			0	0	-	-	-	-	0	0	-	-	-	-	3.45E+02	6.67E+02	1.33E+02	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.82E+00	1.98E+00	3.96E-01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.81E+01	5.79E+02	1.16E+02	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.17E+02	4.17E+02	8.34E+01	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.56E+00	1.51E+00	3.02E-01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.00E+01	9.01E+00	1.80E+00	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.93E+00	1.79E+01	3.59E+00	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.91E-04	1.91E-04	3.83E-05	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	1.73E+03	2.41E+03	4.82E+02	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.50E+01	4.23E+01	8.46E+00	No

Facility Name: **Sylacauga J. Earl Ham WWTP - Outfall 0013**

NPDES No.: **AL0020001**

6/13/2017

$Q_d*C_d + Q_{d2}*C_{d2} + Q_s*C_s = Q_r*C_r$

ID	Pollutant	Carcinogen "Yes"	Type	Background from upstream source (C_{d2}) Daily Max	Background from upstream source (C_{d2}) Monthly Ave	Background Instream (C_s) Daily Max	Background Instream (C_s) Monthly Ave	Enter Max Daily Discharge as reported by Applicant (C_d) Max	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave	Partition Coefficient (Stream / Lake)
				µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	75.4	25.96	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0.0025	0.0018	0.302
10	Nickel**		Metals	0	0	0	0	0	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	44	21	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	30	20	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	179000	163000	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	5.65	2.98	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	24.3	14.67	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobrome-Methane***	YES	VOC	0	0	0	0	12.6	7.16	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichlorethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dintro-2-methylophenol**	YES	Acids	0	0	0	0	0	0	-
61	**Diexin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

4.8	Enter Q_d = wastewater discharge flow from facility (MGD)
7.4266992	Q_d = wastewater discharge flow (cfs) (this value is caluclated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
4.64	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
3.48	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
30.6	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
0.774	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter for Lake	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_d +Qd2+Q_s	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
147	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

December 11, 2018

Facility Name: Sylacauga J. Earl Ham WWTP - Outfall 0013

NPDES No.: AL0020001

Freshwater F&W classification.					Max Daily Discharge as reported by Applicant (C_{dmax})	Freshwater Acute (µg/l) Q_s =1Q10					Avg Daily Discharge as reported by Applicant (C_{davg})	Freshwater Chronic (µg/l) Q_s = 7Q10				Human Health Consumption Fish only (µg/l) Carcinogen: Q_s = Annual Average Non-Carcinogen: Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max		Water Quality Criteria (C_e)	Draft Permit Limit (C_{dmax})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave		Water Quality Criteria (C_e)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_e)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.07E+02	1.21E+02	No
2	Arsenic		YES	0	0	592.334	869.690	173.978	No	0	0	291.324	424.592	84.918	No	3.03E-01	1.55E+00	3.10E-01	No
3	Berylium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	12.408	18.222	3.644	No	0	0	1.362	2.213	0.443	No	-	-	-	-
5	Chromium/ Chromium III			0	0	3716.703	5462.679	1092.536	No	0	0	483.862	786.158	157.232	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	23.497	4.699	No	0	0	11.000	17.873	3.575	No	-	-	-	-
7	Copper	YES		0	75.4	49.795	73.128	14.626	Yes	0	25.96	32.081	52.124	10.425	Yes	-	-	-	-
8	Lead			0	0	475.820	698.493	139.699	No	0	0	18.534	30.114	6.023	No	-	-	-	-
9	Mercury			0	0.0025	2.400	3.525	0.705	No	0	0.0018	0.012	0.019	0.004	No	4.24E-02	6.89E-02	1.38E-02	No
10	Nickel			0	0	1284.469	1886.345	377.269	No	0	0	142.665	231.798	46.360	No	9.93E+02	1.61E+03	3.23E+02	No
11	Selenium			0	0	20.000	29.372	5.874	No	0	0	5.000	8.124	1.625	No	[illegible]	3.95E+03	7.90E+02	No
12	Silver			0	0	6.240	9.164	1.833	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.44E-01	8.89E-02	No
14	Zinc			0	44	492.163	722.781	144.556	No	0	21	496.189	806.195	161.239	No	1.49E+04	2.42E+04	4.84E+03	No
15	Cyanide			0	0	22.000	32.309	6.462	No	0	0	5.200	8.449	1.690	No	[illegible]	1.52E+04	3.03E+03	No
16	Total Phenolic Compounds			0	30	-	-	-	-	0	20	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	179000	-	-	-	-	0	163000	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.82E+00	1.76E+00	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.37E-01	1.47E-01	No
20	Aldrin		YES	0	0	3.000	4.406	0.881	No	0	0	-	-	-	-	[illegible]	1.50E-04	3.01E-05	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.92E+01	1.58E+01	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.03E+02	8.07E+01	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.90E+00	9.80E-01	No
24	Chlordane		YES	0	0	2.400	3.525	0.705	No	0	0	0.0043	0.007	0.001	No	[illegible]	2.42E-03	4.84E-04	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.47E+03	2.94E+02	No
26	Chlorodibromo-Methane		YES	0	5.66	-	-	-	-	0	2.96	-	-	-	-	[illegible]	3.78E+01	7.56E+00	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	24.3	-	-	-	-	0	14.67	-	-	-	-	[illegible]	5.22E+02	1.04E+02	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.29E-04	1.86E-04	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.56E-04	1.31E-04	No
32	4,4' - DDT		YES	0	0	1.100	1.615	0.323	No	0	0	0.001	0.002	0.000	No	[illegible]	6.56E-04	1.31E-04	No
33	Dichlorobromo-Methane		YES	0	12.6	-	-	-	-	0	7.16	-	-	-	-	[illegible]	5.14E+01	1.03E+01	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.09E+02	2.19E+01	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.60E+03	1.92E+03	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.13E+04	4.27E+03	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.38E+01	2.76E+00	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.00E+01	3.99E+00	No
40	Dieldrin		YES	0	0	0.240	0.352	0.070	No	0	0	0.056	0.091	0.018	No	[illegible]	1.60E-04	3.20E-05	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.02E+03	4.04E+02	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.42E+03	2.83E+02	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.77E+03	3.54E+02	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.19E+01	2.39E+00	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.82E+00	1.96E+00	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.42E+04	2.83E+03	No
48	Toxaphene		YES	0	0	0.730	1.072	0.214	No	0	0	0.0002	0.000	0.000	No	[illegible]	8.29E-04	1.66E-04	No
49	Tributyltin (TBT)		YES	0	0	0.460	0.676	0.135	No	0	0	0.072	0.117	0.023	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.66E+01	9.32E+00	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.95E+01	1.79E+01	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.29E+00	1.46E+00	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.41E+02	2.83E+01	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.79E+02	5.59E+01	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.08E+02	1.62E+02	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.05E+03	1.01E+03	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.47E+02	1.69E+02	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.37E-07	2.73E-08	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	12.811	2.562	No	0	0	6.693	10.874	2.175	No	[illegible]	9.05E+00	1.81E+00	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.12E+05	1.62E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.24E+00	1.45E+00	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.40E+02	1.88E+02	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.79E+04	7.58E+03	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.88E-04	3.77E-05	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.46E-02	1.09E-02	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.46E-02	1.09E-02	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.73E-02	3.46E-03	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.73E-02	3.46E-03	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.57E+00	3.15E-01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.14E+04	1.23E+04	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.56E+00	1.31E+00	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.83E+03	3.66E+02	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.50E+03	3.00E+02	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.46E-02	1.09E-02	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.26E+03	8.52E+02	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.46E-02	1.09E-02	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.23E+03	2.45E+02	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.14E+02	1.83E+02	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.83E+02	3.65E+01	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.51E-02	1.70E-02	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.15E+04	8.31E+03	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.05E+06	2.11E+05	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.01E+01	2.03E+00	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.80E-01	3.61E-02	No
97	Endosulfan (alpha)		YES	0	0	0.22	0.323	0.065	No	0	0	0.056	0.091	0.018	No	[illegible]	2.65E+02	5.31E+01	No
98	Endosulfan (beta)		YES	0	0	0.22	0.323	0.065	No	0	0	0.056	0.091	0.018	No	[illegible]	2.65E+02	5.31E+01	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.65E+02	5.31E+01	No
100	Endrin		YES	0	0	0.086	0.126	0.025	No	0	0	0.036	0.058	0.012	No	[illegible]	1.81E-01	3.61E-02	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.03E-01	1.81E-01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.32E+02	2.64E+01	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.05E+03	1.01E+03	No
104	Heptochlor		YES	0	0	0.52	0.764	0.153	No	0	0	0.0038	0.006	0.001	No	[illegible]	2.37E-04	4.74E-05	No
105	Heptachlor Epoxide		YES	0	0	0.52	0.764	0.153	No	0	0	0.0038	0.006	0.001	No	[illegible]	1.17E-04	2.34E-05	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.59E-04	1.72E-04	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.51E+01	1.10E+01	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.46E-02	2.92E-03	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.11E-02	1.02E-02	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	1.395	0.279	No	0	0	-	-	-	-	[illegible]	5.51E+00	1.10E+00	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.05E+03	2.10E+02	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.12E+00	6.23E-01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.46E-02	1.09E-02	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.11E+02	1.82E+02	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.56E+02	1.31E+02	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.51E+00	3.02E-01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.01E+00	1.80E+00	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.79E+01	3.59E+00	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.023	0.005	No	[illegible]	1.91E-04	3.83E-05	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.79E+03	7.58E+02	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.65E+01	1.33E+01	No

Facility Name: **Sylacauga J. Earl Ham WWTP - Outfall 0014**

NPDES No.: **AL0020001**

6/13/2017

$Q_d * C_d + Q_{d2} * C_{d2} + Q_s * C_s = Q_r * C_r$

ID	Pollutant	Carcinogen "yes"	Type	Background from upstream source (C_{d2}) Daily Max µg/l	Background from upstream source (C_{d2}) Monthly Ave µg/l	Background Instream (C_s) Daily Max µg/l	Background Instream (C_s) Monthly Ave µg/l	Enter Max Daily Discharge as reported by Applicant (C_d) Max µg/l	Enter Avg. Daily Discharge as reported by Applicant (C_d) Ave µg/l	Partition Coefficient (Stream / Lake)
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	75.4	25.96	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0.0025	0.0018	0.302
10	Nickel**		Metals	0	0	0	0	0	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	44	21	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	30	20	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	179000	163000	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibrome-Methane***	YES	VOC	0	0	0	0	5.65	2.98	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	24.3	14.67	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	12.6	7.16	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichlorethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dinitro-2-methylophenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indene(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

v 8/15/2016

4.8	Enter Q_d = wastewater discharge flow from facility (MGD)
7.4266992	Q_d = wastewater discharge flow (cfs) (this value is caluclated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
9.28	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
6.96	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
30.6	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
0.774	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_d +Qd2+Q_s	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
147	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

December 11, 2018

Facility Name: Sylacauga J. Earl Ham WWTP - Outfall 0014

NPDES No.: AL0020001

		Freshwater F&W classification				Freshwater Acute (µg/l) Q_s =1Q10						Freshwater Chronic (µg/l) Q_s = 7Q10					Human Health Consumption Fish only (µg/l)			
																	Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max	Max Daily Discharge as reported by Applicant (C_{max})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{max})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_t)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	5.73E+02	8.40E+02	1.68E+02	No
2	Arsenic		YES	0	0	360.334	1147.446	229.489	No	0	0	265.324	587.860	117.572	No	3.03E-01	1.55E+00	3.10E-01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	12.408	24.036	4.807	No	0	0	3.352	3.064	0.613	No	-	-	-	-
5	Chromium/ Chromium III			0	0	3719.703	7205.656	1441.131	No	0	0	483.857	1088.458	217.692	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.020	30.995	6.199	No	0	0	11.003	24.745	4.949	No	-	-	-	-
7	Copper	YES		0	75.4	49.795	96.461	19.292	Yes	0	25.96	32.061	72.167	14.433	Yes	-	-	-	-
8	Lead			0	0	475.608	921.362	184.272	No	0	0	18.534	41.694	8.339	No	-	-	-	-
9	Mercury			0	0.0025	2.400	4.649	0.930	No	0	0.0018	0.012	0.027	0.005	No	4.24E-02	9.54E-02	1.91E-02	No
10	Nickel			0	0	1214.488	2488.221	497.644	No	0	0	142.695	320.931	64.186	No	9.93E+02	2.23E+03	4.47E+02	No
11	Selenium			0	0	20.000	38.743	7.749	No	0	0	5.000	11.248	2.250	No	2.43E+03	5.47E+03	1.09E+03	No
12	Silver			0	0	6.240	12.088	2.418	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	2.74E-01	6.15E-01	1.23E-01	No
14	Zinc			0	44	492.163	953.399	190.680	No	0	21	496.189	1116.200	223.240	No	1.49E+04	3.35E+04	6.70E+03	No
15	Cyanide			0	0	22.000	42.618	8.524	No	0	0	5.200	11.696	2.340	No	9.33E+03	2.10E+04	4.20E+03	No
16	Total Phenolic Compounds			0	30	-	-	-	-	0	20	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	179000	-	-	-	-	0	163000	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	1.22E+01	2.44E+00	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.44E-01	7.37E-01	1.47E-01	No
20	Aldrin		YES	0	0	3.000	5.811	1.162	No	0	0	-	-	-	-	2.94E-06	1.50E-04	3.01E-05	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.95E+01	7.92E+01	1.58E+01	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.36E+01	4.03E+02	8.07E+01	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.57E-01	4.90E+00	9.80E-01	No
24	Chlordane		YES	0	0	2.400	4.649	0.930	No	0	0	0.0043	0.010	0.002	No	4.73E-04	2.42E-03	4.84E-04	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	6.06E+02	2.04E+03	4.08E+02	No
26	Chlorodibromo-Methane		YES	0	5.65	-	-	-	-	0	2.98	-	-	-	-	7.41E+00	3.79E+01	7.59E+00	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	24.3	-	-	-	-	0	14.67	-	-	-	-	1.02E+02	5.22E+02	1.04E+02	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.81E-04	9.29E-04	1.86E-04	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.29E-04	6.56E-04	1.31E-04	No
32	4,4' - DDT		YES	0	0	1.100	2.131	0.426	No	0	0	0.001	0.002	0.000	No	1.29E-04	6.56E-04	1.31E-04	No
33	Dichlorobromo-Methane		YES	0	12.6	-	-	-	-	0	7.16	-	-	-	-	1.00E+01	5.14E+01	1.03E+01	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.14E+01	1.09E+02	2.19E+01	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	1.33E+04	2.66E+03	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.17E+03	2.13E+04	4.27E+03	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	8.49E+00	1.91E+01	3.82E+00	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.23E+01	2.76E+01	5.53E+00	No
40	Dieldrin		YES	0	0	0.240	0.465	0.093	No	0	0	0.056	0.126	0.025	No	3.12E-05	1.60E-04	3.20E-05	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E+03	2.80E+03	5.60E+02	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	1.98E+03	3.92E+02	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.46E+02	1.77E+03	3.54E+02	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.39E+00	1.19E+01	2.39E+00	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	9.82E+00	1.96E+00	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	2.72E+03	1.96E+04	3.92E+03	No
48	Toxaphene		YES	0	0	0.730	1.414	0.283	No	0	0	0.0002	0.000	0.000	No	1.62E-04	8.29E-04	1.66E-04	No
49	Tributyltin (TBT)		YES	0	0.460	0.891	0.178	No	0	0	0.072	0.162	0.032	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.10E+00	4.66E+01	9.32E+00	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.75E+01	8.95E+01	1.79E+01	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.42E+00	7.29E+00	1.46E+00	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.71E+01	1.95E+02	3.92E+01	No
56	2, 4-Dichlorophanol			0	0	-	-	-	-	0	0	-	-	-	-	7.72E+02	3.87E+02	7.74E+01	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	6.08E+02	1.12E+03	2.24E+02	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	7.00E+03	1.40E+03	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.65E+02	8.47E+02	1.69E+02	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.67E-08	1.37E-07	2.73E-08	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	6.723	16.898	3.380	No	0	0	6.893	15.055	3.011	No	1.77E+00	9.05E+00	1.81E+00	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.00E+05	1.12E+06	2.25E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E+00	7.24E+00	1.45E+00	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	5.78E+02	1.30E+03	2.60E+02	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	5.25E+04	1.05E+04	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	2.61E-04	5.22E-05	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.40E-02	4.79E-03	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.40E-02	4.79E-03	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.07E-01	1.57E+00	3.15E-01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.78E+04	8.50E+04	1.70E+04	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E+00	6.56E+00	1.31E+00	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.13E+03	2.54E+03	5.07E+02	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	8.24E+02	2.08E+03	4.16E+02	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	5.90E+03	1.18E+03	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.55E+02	1.70E+03	3.40E+02	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	1.27E+03	2.53E+02	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	2.53E+02	5.06E+01	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.06E-02	8.51E-02	1.70E-02	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E+04	5.75E+04	1.15E+04	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.49E+06	1.46E+08	2.92E+05	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.98E+00	1.01E+01	2.03E+00	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	2.64E-01	5.27E-02	No
97	Endosulfan (alpha)		YES	0	0	0.22	0.426	0.085	No	0	0	0.056	0.126	0.025	No	5.19E+01	2.65E+02	5.31E+01	No
98	Endosulfan (beta)		YES	0	0	0.22	0.426	0.085	No	0	0	0.056	0.126	0.025	No	5.19E+01	2.65E+02	5.31E+01	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.19E+01	2.65E+02	5.31E+01	No
100	Endrin		YES	0	0	0.086	0.167	0.033	No	0	0	0.036	0.081	0.016	No	3.53E-02	1.81E-01	3.61E-02	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.79E-01	9.03E-01	1.81E-01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	8.12E+01	1.83E+02	3.65E+01	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	7.00E+03	1.40E+03	No
104	Heptochlor		YES	0	0	0.52	1.007	0.201	No	0	0	0.0038	0.009	0.002	No	4.63E-05	2.37E-04	4.74E-05	No
105	Heptachlor Epoxide		YES	0	0	0.52	1.007	0.201	No	0	0	0.0038	0.009	0.002	No	2.29E-05	1.17E-04	2.34E-05	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.68E-04	8.59E-04	1.72E-04	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.24E+01	5.51E+01	1.10E+01	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.89E-01	1.46E-02	2.92E-03	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.97E-01	5.11E-02	1.02E-02	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	1.840	0.368	No	0	0	-	-	-	-	1.24E+00	5.51E+00	1.10E+00	No
111	HexachlorocyclcPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	8.45E+02	1.45E+03	2.90E+02	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.82E+00	4.31E+00	8.63E-01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.46E-02	1.09E-02	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.61E+02	1.26E+03	2.52E+02	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.04E+02	9.08E+02	1.82E+02	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.39E-01	1.51E+00	3.02E-01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.79E+00	9.01E+00	1.80E+00	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.30E+00	1.79E+01	3.58E+00	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	1.79E-04	1.91E-04	3.83E-05	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	3.19E-06	1.91E-04	3.83E-05	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	3.19E-06	1.91E-04	3.83E-05	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	3.19E-06	1.91E-04	3.83E-05	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	3.19E-06	1.91E-04	3.83E-05	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	3.19E-06	1.91E-04	3.83E-05	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.031	0.006	No	3.19E-06	1.91E-04	3.83E-05	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+03	5.25E+03	1.05E+03	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.09E+01	9.21E+01	1.84E+01	No

Permit Number: AL0020001
Monitoring Points: 0012, 0013, 0014
Stage: Effluent Gross Value
Parameter Name: Total Recoverable Thallium
Parameter Code: 00982

Monitoring Period	Outfall	Monthly Average	Daily Maximium	Conc. Unit
December 2013	0014	0	0	µg/L
January 2014	0014	0	0	µg/L
February 2014	0014	0	0	µg/L
March 2014	0014	0	0	µg/L
April 2014	0014	0	0	µg/L
May 2014	0014	0	0	µg/L
June 2014	0014	0	0	µg/L
July 2014	0013	0	0	µg/L
August 2014	0013	0	0	µg/L
September 2014	0014	0	0	µg/L
October 2014	0013	0	0	µg/L
November 2014	0014	0	0	µg/L
Application	001	0	0	µg/L
Application	001	0	0	µg/L
Application	001	0	0	µg/L

Average		0.00		µg/L
Maximum			0	µg/L

*From the December 1, 2013 Permit, Thallium monitoring will become no longer applicable if the Permittee submits twelve consecutive monitoring results using approved EPA methods, demonstrating that thallium concentrations are below the method detection level. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR.

Permit Number: AL0020001
Monitoring Points: 0012, 0013, 0014
Stage: Effluent Gross Value
Parameter Name: Total Recoverable Copper
Parameter Code: 01119

Monitoring Period	Outfall	Monthly Average	Daily Maximium	Conc. Unit
December 2013	0014	23.8	23.8	µg/L
January 2014	0014	29.600	29.600	µg/L
February 2014	0014	25.3	25.3	µg/L
March 2014	0014	8.6	8.6	µg/L
April 2014	0014	41.7	41.7	µg/L
May 2014	0014	32.9	32.9	µg/L
June 2014	0014	44.8	44.8	µg/L
July 2014	0013	35.8	35.8	µg/L
August 2014	0013	36.2	36.2	µg/L
September 2014	0014	2.53	2.53	µg/L
October 2014	0013	25.2	25.2	µg/L
November 2014	0014	26.2	30.100	µg/L
December 2014	0013	39.1	39.1	µg/L
January 2015	0014	0	0	µg/L
February 2015	0014	0	0	µg/L
March 2015	0014	13.1	13.1	µg/L
April 2015	0014	37.60	37.60	µg/L
May 2015	0014	41.5	41.5	µg/L
June 2015	0013	36.2	36.2	µg/L
July 2015	0013	36.10	36.10	µg/L
August 2015	0013	52.400	52.400	µg/L
September 2015	0013	45.2	75.4	µg/L
October 2015	0013	14.8	14.8	µg/L
November 2015	0013	14.2	14.2	µg/L
December 2015	0013	32.8	32.8	µg/L
January 2016	0014	23.3	23.3	µg/L
February 2016	0014	18.4	18.4	µg/L
March 2016	0014	31.6	31.6	µg/L
April 2016	0014	12.1	12.1	µg/L
May 2016	0014	28.7	28.7	µg/L
June 2016	0014	23.9	23.9	µg/L
July 2016	0013	45.6	45.6	µg/L
August 2016	0013	30.000	30.000	µg/L
September 2016	0012	33.5	33.5	µg/L
October 2016	0013	21.4	21.4	µg/L
November 2016	0013	21.4	21.4	µg/L
December 2016	0013	22.7	22.7	µg/L
January 2017	0014	19.2	19.2	µg/L
February 2017	0014	13.9	13.9	µg/L
March 2017	0014	19.4	19.4	µg/L
April 2017	0014	18.6	18.6	µg/L
May 2017	0014	23.0	23.0	µg/L
June 2017	0014	21.0	21.0	µg/L
July 2017	0014	17.2	17.2	µg/L
August 2017	0014	33.0	33.0	µg/L
September 2017	0013	43.8	43.8	µg/L
October 2017	0013	37.9	37.9	µg/L
November 2017	0014	21.4	21.4	µg/L
December 2017	0014	31.1	31.1	µg/L
January 2018	0014	24.3	24.3	µg/L
February 2018	0014	34.9	34.9	µg/L
March 2018	0014	31.6	31.6	µg/L

April 2018	0014	20.3	20.3	µg/L
May 2018	0014	24.5	24.5	µg/L
June 2018	0013	31.1	31.1	µg/L
July 2018	0013	35.7	35.7	µg/L
August 2018	0014	21.7	21.7	µg/L
September 2018	0014	17.7	17.7	µg/L
Application	001	11.33	13.2	µg/L
Application	001	11.33	13.2	µg/L
Application	001	11.33	13.2	µg/L

Average		25.96		µg/L
Maximum			75.4	µg/L

Permit Number: AL0020001
Monitoring Points: 0012
Stage: Effluent Gross Value
Parameter Name: Total Recoverable Cyanide
Parameter Code: 78248

Monitoring Period	Monthly Average	Daily Maximium	Conc. Unit
September 2016	0	0	µg/L
Application	0	0	µg/L
Application	0	0	µg/L
Application	0	0	µg/L

Average	0.00		µg/L
Maximum		0	µg/L

*No Discharge December 2016 - August 2016 and October 2016 - June 2018

Waste Load Allocation Summary

Comments Included: [x] Yes [ ] No

General Information

Information Verified By: dwt

Receiving Stream Name	Shirtee Creek
Year File Was Created	1991
Previous File Name	
OR: Local Name (If applicable)	
Facility Name	Sylacauga J.E. Ham WWTP
Previous Discharger Name	
Or-AKA (includes previous file name)	
11 Digit HUC Code	03150107010
12 Digit HUC Code	031501070104
River Basin	Coosa
County	Talladega
Use Classification	F&W
Date of WLA Response	12/2/2010
Discharge Latitude	33.19725
Lat/Long Method	GPS
Discharge Longitude	-86.27195
Approved TMDL?	[ ] Yes [x] No
Site Visit Completed?	[x] Yes [ ] No
Date of Site Visit	9/22/2010
Approval Date of TMDL	
Waterbody Impaired?	[x] Yes [ ] No
Antidegradation	[ ] Yes [x] No
Waterbody Tier Level	Tier I
Use Support Category	5
Other Point Sources?	[x] Yes [ ] No

Print Record | Close Form

Permit Information

Permit Number	AL0020001
Permit Status	Active

Type of Discharger:
- [x] Municipal
- [ ] Industrial
- [ ] Semipublic/Private
- [ ] Mining

Sources Included in Model:
Sylacauga Fairmont WWTP

Waste Load Allocation Information

Modeled Reach Length	10.85 Miles	Date of Allocation	10/22/2010
Name of Model Used	SWQM	Allocation Type	2 Seasons
Model Completed by	David Thompson	Type of Model Used	Desk-top
Allocation Developed by	Water Quality Branch		

Waste Load Allocation Summary

Annual Effluent Limits		Conventional Parameters				Other Parameters			
		Qw 4.8 MGD		Qw 4.8 MGD		Qw MGD		Qw MGD	
QW MGD		Season	Summer	Season	Winter	Season		Season	
		From	May	From	Dec	From		From	
		Through	Nov	Through	Apr	Through		Through	
CBOD5		CBOD5	13	CBOD5	9	TP		TP	
NH3-N		NH3-N	2.5	NH3-N	4	TN		TN	
TKN		TKN	7.5	TKN	9	TSS		TSS	
D.O.		D.O.	6	D.O.	6				

"Monitor Only" Parameters for Effluent:	Parameter	Frequency	Parameter	Frequency
	TP	Monthly		
	NO2+NO3-N	Monthly		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu	2.6	mg/l	2.625	mg/l
NH3-N	0.141	mg/l	0.17	mg/l
Temperature	28	°C	18	°C
pH	7	su	7	su

Hydrology at Discharge Location

Drainage Area Qualifier				Method Used to Calculate
Exact	Drainage Area	17	sq mi	
	Stream 7Q10	0.248	cfs	Bingham Equation
	Stream 1Q10	0.186	cfs	75%of 7Q10
	Stream 7Q2	0.774	cfs	Bingham Equation
	Annual Average	30.6	cfs	ADEM Estimate w/USGS Gage Data

Comments and/or Notations

This WLA Response package is for a three tiered permit request. The facility requested permit limits for three different (Headwater flow) conditions.
The WLA summary above is for (Headwater flows) = 7Q10 and 7Q2 conditions.
The MEMO attached to this WLA Response Package summarizes the request and gives suggestions on determining Headwater flows.

If comments are made, check the "yes" box at the top of page one.

Last Revision: 07/15/09

LANCE R. LEFLEUR
DIRECTOR

BOB RILEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

December 2, 2010

MEMORANDUM

To: WLA File

From David Thompson
Technical Support Section/Water Quality Branch

Subject: WLA Response Package for Sylacauga J. E. Ham WWTP
Shirtee Creek/Talladega County

On 07/12/10 the Municipal Branch submitted a WLA request for Shirtee Creek for the Sylacauga J.E. Ham WWTP. The treatment system is not requesting any changes in design flow rate but is requesting a Tiered permit for consideration of additional headwater flow from a quarry discharge. The facility requested WLAs for seasonal limits for 7Q10 and 7Q2 conditions and seasonal limits for headwater flow conditions = 3 mgd (4.64 cfs) and headwater flow conditions = 6 mgd (9.28 cfs). The tables below summarize limits for each scenario.

Summer			
	New 7Q10 limits	Headwaters @ 4.64 cfs	Headwaters @ 9.28 cfs
CBOD5	13	10	8
NH3-N*	2.5	3.5	5
TKN	7.5	8.5	9
DO	6	6	6

* = The maximum allowable effluent ammonia-nitrogen concentration

Winter			
	New 7Q2 limits	Headwaters @ 4.64 cfs	Headwaters @ 9.28 cfs
CBOD5	9	7	7
NH3-N	4	3.5	3
TKN	9	5.5	5
DO	6	6	6

"When calculating headwater flow for the J. E. Ham WWTP discharge using USGS gage # 02406930 SHIRTEE CREEK NEAR ODENA, ALABAMA, the J. E. Ham WWTP discharge, must be subtracted then an additional 10% of the remaining flow should be subtracted for drainage area and margin of safety."

DWT:dwt

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S. W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (FAX)

*Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	1000 0015 2023		D
1	2 — 13	14	15

LABEL ITEMS	
I. EPA I.D. NUMBER	PLEASE PLACE LABEL IN THIS SPACE
III. FACILITY NAME	
V. FACILITY MAILING ADDRESS	
VI. FACILITY LOCATION	

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)	X (16)	(17)	(18)
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)	(19)	X (20)	(21)
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	(22)	X (23)	(24)
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)	(25)	X (26)	(27)
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	(28)	X (29)	(30)
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	(31)	X (32)	(33)
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	(34)	X (35)	(36)
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	(37)	X (38)	(39)
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	(40)	X (41)	(42)
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	(43)	X (44)	(45)

III. NAME OF FACILITY

C 1 | SKIP (15, 16 – 29) | J. Earl Ham WWTP (30 – 69)

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2 Green, David (Water Quality Supervisor) (15, 16 – 45)	(256) 401-2536 (46 – 48, 49 – 51, 52 – 55)

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 P.O. Box 207 (15, 16 – 45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 Sylacauga (15, 16 – 40)	AL (41, 42)	35150 (47 – 51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 610 Old Sylacauga Highway (15, 16 – 45)

B. COUNTY NAME

Talladega (46 – 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
C 6 Sylacauga (15, 16 – 40)	AL (41, 42)	35150 (47 – 51)	(52 – 54)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
C 7 ____ *(specify)*	C 7 ____ *(specify)*
C. THIRD	**D. FOURTH**
C 7 ____ *(specify)*	C 7 ____ *(specify)*

VIII. OPERATOR INFORMATION

A. NAME

C 8 The Utlities Board of the City of Sylacauga

B. Is the name listed in Item VIII-A also the owner? ☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

M *(specify)*

D. PHONE *(area code & no.)*

C A (256) 401-2536

E. STREET OR P.O. BOX

P.O. Box 207

F. CITY OR TOWN

C B Sylacauga

G. STATE AL

H. ZIP CODE 35150

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*: C T I 9 N AL0020001

D. PSD *(Air Emissions from Proposed Sources)*: C T I 9 P

B. UIC *(Underground Injection of Fluids)*: C T I 9 U

E. OTHER *(specify)*: C T I 9 ____ *(specify)*

C. RCRA *(Hazardous Wastes)*: C T I 9 R

E. OTHER *(specify)*: C T I 9 ____ *(specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

We provide for the treatement of domestic wastewater.

XIII. CERTIFICATION *(see instructions)*

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

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
David Green (Water Quality Supervisor)	David Green	4/18/18

COMMENTS FOR OFFICIAL USE ONLY

C C


Gravel Pit
GEORGIA
Odena
SHIRTA
BDY
BM 583
Water Tank
Five Points
J.E. Ham WWTP
Sewage Disposal
Sewage Disposal Ponds
Five Points Ch
Culvert
West Side Ch
Drive-In Theater
Fish Farm
Corners Cem
Corner Sch
Avondale Sch
WT
Noble Park
Cumen Sch
Lake Louise
Water Tank
Cem
Sylvan Sch
Trailer Park
SYLACAUGA
Junction
LOUISVILLE
NASHVILLE
Substation
Shopping Center
Nursing Home
DeLORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com
Scale 1 : 25,000
1" = 2080 ft
TN
2.1°W

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
OMB Number 2040-0086

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FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: J.Earl Ham

Mailing Address: P.O. Box 207 Sylacauga, Al 35150

Contact person: David Green

Title: Water Quality Supervisor

Telephone number: (256) 401-2536

Facility Address (not P.O. Box): 610 Old Sylacauga Highway

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: The Utilities Board of the City of Sylacauga

Mailing Address: P.O. Box 207 Sylacauga, Al 35150

Contact person: David Green

Title: Water Quality Supervisor

Telephone number: (256) 401-2536

Is the applicant the owner or operator (or both) of the treatment works?

✓ owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility ✓ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES AL0020001 PSD _____

UIC _____ Other _____

RCRA _____ Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Sylacauga	15,355	Sanitary Gravity Sewer	Sylacauga
Oak Grove	245	Sanitary Gravity Sewer	Oak Grove

Total population served 15,600

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 4.80 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	3.50	2.71	2.82	mgd
c. Maximum daily flow rate	11.82	12.81	13.09	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓ Separate sanitary sewer	100.00 %
_____ Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1
ii. Discharges of untreated or partially treated effluent _____
iii. Combined sewer overflow points _____
iv. Constructed emergency overflows (prior to the headworks) _____
v. Other _____ _____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name: N/A

Mailing Address:

Contact person:

Title:

Telephone number:

For each treatment works that receives this discharge, provide the following:

Name: N/A

Mailing Address:

Contact person:

Title:

Telephone number:

If known, provide the NPDES permit number of the treatment works that receives this discharge.

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method:

Is disposal through this method _____ continuous or _____ intermittent?

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 0012 - 0013 - 0014

b. Location
Sylacauga (City or town, if applicable) — 35150 (Zip Code)
Talladega (County) — Al (State)
33.1970 (Latitude) — -86.2715 (Longitude)

c. Distance from shore (if applicable) 0.00 ft.

d. Depth below surface (if applicable) 0.00 ft.

e. Average daily flow rate 2.71 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ____ Yes ✓ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: ____

Average duration of each discharge: ____

Average flow per discharge: ____ mgd

Months in which discharge occurs: ____

g. Is outfall equipped with a diffuser? ____ Yes ✓ No

A.10. Description of Receiving Waters.

a. Name of receiving water Shirtee Creek

b. Name of watershed (if known) Coosa Valley

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): Coosa River

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): ____

d. Critical low flow of receiving stream (if applicable):
acute ____ cfs chronic ____ cfs

e. Total hardness of receiving stream at critical low flow (if applicable): 155.00 mg/l of $CaCO_3$

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FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
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A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary ✓ Secondary

_____ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	98.00	%
Design SS removal	99.00	%
Design P removal	0.00 Unknown	%
Design N removal	99.00	%
Other _____		%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorine

If disinfection is by chlorination, is dechlorination used for this outfall? ✓ Yes _____ No

d. Does the treatment plant have post aeration? ✓ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 0012 - 0013 - 0014 Flow Base

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.43	s.u.			
pH (Maximum)	8.27	s.u.			
Flow Rate	3.50				
Temperature (Winter)					
Temperature (Summer)					

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5							
	CBOD-5	14.00	Mg/l	3.00	Mg/l	149.00	SM5210B	1Mg/l
FECAL COLIFORM		0.00	Col/100ml	0.00	Col/100ml	3.00	SM9222D	1Col/100ml
TOTAL SUSPENDED SOLIDS (TSS)		96.00	Mg/l	4.00	Mg/l	374.00	SM2540D	1Mg/l

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

100,000.00 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The Utilities Board has a program to reduce inflow and infiltration by identifying and replacing defective mains

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____Yes ✓No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

_____

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____Yes ____No

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

_____

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

	Schedule	Actual Completion
Implementation Stage	MM / DD / YYYY	MM / DD / YYYY
– Begin construction	___/___/____	___/___/____
– End construction	___/___/____	___/___/____
– Begin discharge	___/___/____	___/___/____
– Attain operational level	___/___/____	___/___/____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____Yes ____No

Describe briefly: _____

_____

B.6. EFFLUENT TESTING DATA (GREATER THAN O.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	1.30	Mg/l	0.43	Mg/L	3.00	4500 NH3 B-C	.1
CHLORINE (TOTAL RESIDUAL, TRC)	0.03	Mg/l	0.01	Mg/L	170.00	4500 Cl G	
DISSOLVED OXYGEN	10.20	Mg/l	8.30	Mg/L	396.00	4500 O G	.05
TOTAL KJELDAHL NITROGEN (TKN)	1.39	Mg/l	0.67	mg/l	3.00	351.2	.50
NITRATE PLUS NITRITE NITROGEN	18.90	MgN/L	13.90	mg/NL	3.00	353.2	.65
OIL and GREASE	1.92	mg/l	1.09	mg/l	3.00	1664A	1.0
PHOSPHORUS (Total)	2.89	mg/l	1.96	mg/l	3.00	365.4	.10
TOTAL DISSOLVED SOLIDS (TDS)	409.00	mg/l	329.00	mg/l dry	3.00	sm2540c	2
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

✓ Part D (Expanded Effluent Testing Data)

✓ Part E (Toxicity Testing: Biomonitoring Data)

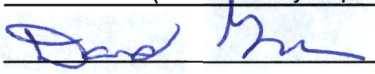
✓ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: David Green (Water Quality Supervisor)

Signature: 

Telephone number: (256) 401-2536

Date signed: 4/18/18

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	0.00	ug/l			0.00	ug/l			3.00	200.7	20 ug/l
ARSENIC	0.00	ug/l			0.00	ug/l			3.00	200.7	22 ug/l
BERYLLIUM	0.00	ug/l			0.00	ug/l			3.00	200.7	4 ug/l
CADMIUM	0.00	ug/l			0.00	ug/l			3.00	200.7	4 ug/l
CHROMIUM	0.00	ug/l			0.00	ug/l			3.00	200.7	7 ug/l
COPPER	13.20	ug/l			11.33	ug/l			3.00	200.7	6 ug/l
LEAD	0.00	ug/l			0.00	ug/l			3.00	200.7	26 ug/l
MERCURY DG	~~0.00~~ .0035	ug/l		DG	~~0.00~~ .0018	ug/l			3.00	245.1	.20 ug/l
NICKEL	0.00	ug/l			0.00	ug/l			3.00	200.7	8 ug/l
SELENIUM	0.00	ug/l			0.00	ug/l			3.00	200.7	26 ug/l
SILVER	0.00	ug/l			0.00	ug/l			3.00	200.7	8 ug/l
THALLIUM	0.00	ug/l			0.00	ug/l			3.00	200.7	34 ug/l
ZINC	44.00	ug/l			21.00	ug/l			3.00	200.7	25 ug/l
CYANIDE	0.00	ug/l			0.00	ug/l			3.00	335.4	.004 mg/l
TOTAL PHENOLIC COMPOUNDS	0.03	mgL			0.02	mg/L			3.00	420.1	.015 mgL
HARDNESS (AS $CaCO_3$)	179.00	mg/l			163.00	mg/l			3.00	SM2340C	4.5 mg/l
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	0.00	ug/l			0.00	ug/l			3.00	624	30.8 ug/l
ACRYLONITRILE	0.00	ug/l			0.00	ug/l			3.00	624	17 ug/l
BENZENE	0.00	ug/l			0.00	ug/l			3.00	624	1.69 ug/l
BROMOFORM	0.00	ug/l			0.00	ug/l			3.00	624	2.35 ug/l
CARBON TETRACHLORIDE	0.00	ug/l			0.00	ug/l			3.00	624	1.82 ug/l
CLOROBENZENE	0.00	ug/l			0.00	ug/l			3.00	624	3.82 ug/l
CHLORODIBROMO-METHANE	5.65	ug/l			2.98	ug/l			3.00	624	2 ug/l
CHLOROETHANE	0.00	ug/l			0.00	ug/l			3.00	624	2.28 ug/l
2-CHLORO-ETHYLVINYL ETHER	0.00	ug/l			0.00	ug/l			3.00	624	5.09 ug/l
CHLOROFORM	24.30	ug/l			14.67	ug/l			3.00	624	1.84 ug/l
DICHLOROBROMO-METHANE	12.60	ug/l			7.16	ug/l			3.00	624	1.79 ug/l
1,1-DICHLOROETHANE	0.00	ug/l			0.00	ug/l			3.00	624	1.98 ug/l
1,2-DICHLOROETHANE	0.00	ug/l			0.00	ug/l			3.00	624	1.84 ug/l
TRANS-1,2-DICHLORO-ETHYLENE	0.00	ug/l			0.00	ug/l			3.00	624	1.94 ug/l
1,1-DICHLOROETHYLENE	0.00	ug/l			0.00	ug/l			3.00	624	1.98 ug/l
1,2-DICHLOROPROPANE	0.00	ug/l			0.00	ug/l			3.00	624	1.53 ug/l
1,3-DICHLORO-PROPYLENE	0.00	ug/l			0.00	ug/l			3.00	624	1.4 ug/l
ETHYLBENZENE	0.00	ug/l			0.00	ug/l			3.00	624	1.92 ug/l
METHYL BROMIDE	0.00	ug/l			0.00	ug/l			3.00	624	2.34 ug/l
METHYL CHLORIDE	0.00	ug/l			0.00	ug/l			3.00	624	2.7 ug/l
METHYLENE CHLORIDE	0.00	ug/l			0.00	ug/l			3.00	624	2.21 ug/l
1,1,2,2-TETRACHLORO-ETHANE	0.00	ug/l			0.00	ug/l			3.00	624	1.76 ug/l
TETRACHLORO-ETHYLENE	0.00	ug/l			0.00	ug/l			3.00	624	2 ug/l
TOLUENE	0.00	ug/l			0.00	ug/l			3.00	624	1.72 ug/l

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
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Outfall number: 001- 3 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	0.00	ug/l			0.00	ug/l			3.00	625	1.94 ug/l
1,1,2-TRICHLOROETHANE	0.00	ug/l			0.00	ug/l			3.00	625	1.61 ug/l
TRICHLORETHYLENE	0.00	ug/l			0.00	ug/l			3.00	625	1.81 ug/l
VINYL CHLORIDE	0.00	ug/l			0.00	ug/l			3.00	625	1.95 ug/l
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	0.00	ug/l			0.00	ug/l			3.00	625	6.39 ug/l
2-CHLOROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	5.41 ug/l
2,4-DICHLOROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	6.34 ug/l
2,4-DIMETHYLPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	6.66 ug/l
4,6-DINITRO-O-CRESOL	0.00	ug/l			0.00	ug/l			3.00	625	8.12 ug/l
2,4-DINITROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	11 ug/l
2-NITROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	6.22 ug/l
4-NITROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	21.3 ug/l
PENTACHLOROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	8.19 ug/l
PHENOL	0.00	ug/l			0.00	ug/l			3.00	625	4.61 ug/l
2,4,6-TRICHLOROPHENOL	0.00	ug/l			0.00	ug/l			3.00	625	6.98 ug/l
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	0.00	ug/l			0.00	ug/l			3.00	625	5.7 ug/l
ACENAPHTHYLENE	0.00	ug/l			0.00	ug/l			3.00	625	6.12 ug/l
ANTHRACENE	0.00	ug/l			0.00	ug/l			3.00	625	8.88 ug/l
BENZIDINE	0.00	ug/l			0.00	ug/l			3.00	625	7.82 ug/l
BENZO(A)ANTHRACENE	0.00	ug/l			0.00	ug/l			3.00	625	7.79 ug/l
BENZO(A)PYRENE	0.00	ug/l			0.00	ug/l			3.00	625	8.94 ug/l

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	0.00	ug/l			0.00	ug/l			3.00	625	7.79 ug/l
BENZO(GHI)PERYLENE	0.00	ug/l			0.00	ug/l			3.00	625	5.64 ug/l
BENZO(K)FLUORANTHENE	0.00	ug/l			0.00	ug/l			3.00	625	10.9 ug/l
BIS (2-CHLOROETHOXY) METHANE	0.00	ug/l			0.00	ug/l			3.00	625	8.72 ug/l
BIS (2-CHLOROETHYL)-ETHER	0.00	ug/l			0.00	ug/l			3.00	625	5.59 ug/l
BIS (2-CHLOROISO-PROPYL) ETHER	0.00	ug/l			0.00	ug/l			3.00	625	8.54 ug/ll
BIS (2-ETHYLHEXYL) PHTHALATE	0.00	ug/l			0.00	ug/l			3.00	625	9.26 ug/l
4-BROMOPHENYL PHENYL ETHER	0.00	ug/l			0.00	ug/l			3.00	625	8.74 ug/l
BUTYL BENZYL PHTHALATE	0.00	ug/l			0.00	ug/l			3.00	625	7.84 ug/l
2-CHLORONAPHTHALENE	0.00	ug/l			0.00	ug/l			3.00	625	8.51 ug/l
4-CHLORPHENYL PHENYL ETHER	0.00	ug/l			0.00	ug/l			3.00	625	8.74 ug/l
CHRYSENE	0.00	ug/l			0.00	ug/l			3.00	625	6.18 ug/l
DI-N-BUTYL PHTHALATE	0.00	ug/l			0.00	ug/l			3.00	625	9.91 ug/l
DI-N-OCTYL PHTHALATE	0.00	ug/l			0.00	ug/l			3.00	625	9.91 ug/l
DIBENZO(A,H) ANTHRACENE	0.00	ug/l			0.00	ug/l			3.00	625	5.36 ug/l
1,2-DICHLOROBENZENE	0.00	ug/l			0.00	ug/l			3.00	625	9.87 ug/l
1,3-DICHLOROBENZENE	0.00	ug/l			0.00	ug/l			3.00	625	9.66 ug/l
1,4-DICHLOROBENZENE	0.00	ug/l			0.00	ug/l			3.00	625	9.66 ug/l
3,3-DICHLOROBENZIDINE	0.00	ug/l			0.00	ug/l			3.00	625	7.41ug/l
DIETHYL PHTHALATE	0.00	ug/l			0.00	ug/l			3.00	625	7.8 ug/l
DIMETHYL PHTHALATE	0.00	ug/l			0.00	ug/l			3.00	625	8.83 ug/l
2,4-DINITROTOLUENE	0.00	ug/l			0.00	ug/l			3.00	625	8.1 ug/l
2,6-DINITROTOLUENE	0.00	ug/l			0.00	ug/l			3.00	625	8.54 ug/l
1,2-DIPHENYLHYDRAZINE	0.00	ug/l			0.00	ug/l			3.00	625	8.34 ug/l

FACILITY NAME AND PERMIT NUMBER:
J.Earl Ham Al0020001

Form Approved 1/14/99
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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	0.00	ug/l			0.00	ug/l			3.00	6250	7.84 ug/l
FLUORENE	0.00	ug/l			0.00	ug/l			3.00	625	8.01 ug/l
HEXACHLOROBENZENE	0.00	ug/l			0.00	ug/l			3.00	625	7.27 ug/l
HEXACHLOROBUTADIENE	0.00	ug/l			0.00	ug/l			3.00	625	9.18 ug/l
HEXACHLOROCYCLO-PENTADIENE	0.00	ug/l			0.00	ug/l			3.00	625	9.46 ug/l
HEXACHLOROETHANE	0.00	ug/l			0.00	ug/l			3.00	625	9.62 ug/l
INDENO(1,2,3-CD)PYRENE	0.00	ug/l			0.00	ug/l			3.00	625	4.94 ug/l
ISOPHORONE	0.00	ug/l			0.00	ug/l			3.00	625	8.7 ug/l
NAPHTHALENE	0.00	ug/l			0.00	ug/l			3.00	625	6.84 ug/l
NITROBENZENE	0.00	ug/l			0.00	ug/l			3.00	625.00	6.92 ug/l
N-NITROSODI-N-PROPYLAMINE	0.00	ug/l			0.00	ug/l			3.00	625	7.28 ug/l
N-NITROSODI- METHYLAMINE	0.00	ug/l			0.00	ug/l			3.00	625	4.91 ug/l
N-NITROSODI-PHENYLAMINE	0.00	ug/l			0.00	ug/l			3.00	625	9.15 ug/l
PHENANTHRENE	0.00	ug/l			0.00	ug/l			3.00	625	8.27 ug/l
PYRENE	0.00	ug/l			0.00	ug/l			3.00	625	7.8 ug/l
1,2,4-TRICHLOROBENZENE	0.00	ug/l			0.00	ug/l			3.00	625	13.6 ug/l
Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.											
Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.											

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

8 chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 1 Test number: 2 Test number: 3

a. Test information.

Test species & test method number	C. dubia 1002.0	C. dubia 1002.0	C. dubia 1002.0
Age at initiation of test	8-16 hrs	8-16 hrs	8-16 hrs
Outfall number	001	001	001
Dates sample collected	10/27-29-31/14	10/12-14-16/15	10/10-12-14/16
Date test started	10/28/14	10/13/15	10/11/16
Duration	3 brood	3 brood	3 brood

b. Give toxicity test methods followed.

Manual title	EPA-821-R-02-013	EPA-821-R-02-013	EPA-821-R-02-013
Edition number and year of publication	4th 2002	4th 2002	4th 2002
Page number(s)	141-196	141-196	141-196

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	yes	yes	yes
Grab	no	no	no

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection	✓	✓	✓
After disinfection	✓	✓	✓
After dechlorination	yes	yes	yes

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP. AL0020001

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

X chronic ___ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 4 Test number: 5 Test number: 6

a. Test information.

Test species & test method number	C. dubia 1002.0	P. promelas 1000.0	P. promelas 1000.0
Age at initiation of test	8-16 hrs	24-48 hrs	24-48 hrs
Outfall number	001	001	001
Dates sample collected	10/17-19-21/17	10/27-29-31/14	10/12-14-16/15
Date test started	10/17/17	10/28/14	10/13/15
Duration	3 brood	7 day	7 day

b. Give toxicity test methods followed.

Manual title	EPA-821-R-02-013	EPA-821-R-02-013	EPA-821-R-02-013
Edition number and year of publication	4th 2002	4th 2002	4th 2002
Page number(s)	141-196	53-106	53-106

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	yes	yes	yes
Grab	no	no	no

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection	N/A	N/A	N/A
After disinfection	N/A	N/A	N/A
After dechlorination	Yes	Yes	Yes

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

X chronic ___ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 7 Test number: 8 Test number: N/A

a. Test information.				
Test species & test method number	P. promelas 1000.0	P. promelas 1000.0		
Age at initiation of test	24-48 hr	24-48 hr		
Outfall number	001	001		
Dates sample collected	10/10-12-14/16	10/17-19-21/17		
Date test started	10/11/16	10/17/17		
Duration	7 day	7 day		
b. Give toxicity test methods followed.				
Manual title	EPA-821-R-02-013	EPA-821-R-02-013		
Edition number and year of publication	4th 2002	4th 2002		
Page number(s)	53-106	53-106		
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.				
24-Hour composite	yes	yes		
Grab	no	NO		
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)				
Before disinfection	N/A	N/A		
After disinfection	N/A	N/A		
After dechlorination	yes	yes		

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	Test number: 1	Test number: 2	Test number: 3
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final Effluent	Final Effluent	Final Effluent
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	yes	yes	yes
Acute toxicity	no	no	no
g. Provide the type of test performed.			
Static	no	no	no
Static-renewal	yes	yes	yes
Flow-through	no	no	no
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	MHRW
Receiving water	no	no	no
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	yes	yes	yes
Salt water	no	no	no
j. Give the percentage effluent used for all concentrations in the test series.			
	62 %	62 %	62 %
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	yes	yes	yes
Salinity	yes	yes	yes
Temperature	yes	yes	yes
Ammonia	yes	yes	yes
Dissolved oxygen	yes	yes	yes
l. Test Results.			
Acute:			
Percent survival in 100% effluent	N/A %	N/A %	N/A %
LC_{50}	↓	↓	↓
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER: J. Earl Ham WWTP AL0020001			Form Approved 1/14/99 OMB Number 2040-0086
	Test number: 4	Test number: 5	Test number: 6
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final Effluent	Final Effluent	Final Effluent
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	yes	yes	yes
Acute toxicity	no	no	no
g. Provide the type of test performed.			
Static	no	no	no
Static-renewal	yes	yes	yes
Flow-through	no	no	no
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	MHRW
Receiving water	no	no	no
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	yes	yes	yes
Salt water	no	no	no
j. Give the percentage effluent used for all concentrations in the test series.			
	97%	62%	62%
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	yes	yes	yes
Salinity	yes	yes	yes
Temperature	yes	yes	yes
Ammonia	yes	yes	yes
Dissolved oxygen	yes	yes	yes
l. Test Results.			
Acute:			
Percent survival in 100% effluent	N/A %	N/A %	N/A %
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER: J. Earl Ham WWTP AL0020001			Form Approved 1/14/99 OMB Number 2040-0086
	Test number: 7	Test number: 8	Test number:
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final Effluent	Final Effluent	
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	yes	yes	~~yes~~ no
Acute toxicity	no	no	~~no~~ yes
g. Provide the type of test performed.			
Static	no	no	no
Static-renewal	yes	yes	yes
Flow-through	no	no	no
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	MHRW
Receiving water	no	no	no
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	yes	yes	
Salt water	no	no	
j. Give the percentage effluent used for all concentrations in the test series.			
	62%	97%	
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	yes	yes	
Salinity	yes	yes	
Temperature	yes	yes	
Ammonia	yes	yes	
Dissolved oxygen	yes	yes	
l. Test Results.			
Acute:			
Percent survival in 100% effluent	N/A %	N/A %	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER:
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Chronic:	test #1		test #2		test #3	
NOEC Survival	PASS	%	PASS	%	PASS	%
~~IC25~~ Growth/repro	PASS	%	PASS	%	PASS	%
Control percent survival	100	%	100	%	100	%
Other (describe)						
m. Quality Control/Quality Assurance.						
Is reference toxicant data available?	yes		yes		yes	
Was reference toxicant test within acceptable bounds?	yes		yes		yes	
What date was reference toxicant test run (MM/DD/YYYY)?	10/7/14		10/20/15		10/4/16	
Other (describe)						

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes _X_No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: N/A (MM/DD/YYYY)

Summary of results: (see instructions)

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

FACILITY NAME AND PERMIT NUMBER:
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Chronic:	test #4		test #5		test #6	
~~NOEC~~ Survival	PASS	%	PASS	%	PASS	%
~~IC25~~ Growth/repro.	PASS	%	PASS	%	PASS	%
Control percent survival	100	%	100	%	100	%
Other (describe)						

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	yes	yes	yes
Was reference toxicant test within acceptable bounds?	yes	yes	yes
What date was reference toxicant test run (MM/DD/YYYY)?	10/10/17	10/7/14	10/20/15
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes X No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: N/A (MM/DD/YYYY)

Summary of results: (see instructions)

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0062001

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Chronic:	test #7		test #8		
~~NOEC~~ survival	PASS	%	PASS	%	%
~~IC25~~ growth/repro.	PASS	%	PASS	%	%
Control percent survival	100	%	100	%	%
Other (describe)					

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	yes	yes	
Was reference toxicant test within acceptable bounds?	yes	yes	
What date was reference toxicant test run (MM/DD/YYYY)?	10/4/16	10/17/17	
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes _X_No If yes, describe: _____

_____

_____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: N/A (MM/DD/YYYY)

Summary of results: (see instructions)

_____

_____

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

✓ Yes ___ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 4.00

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Blue Bell Creameries

Mailing Address: 423 N. Norton Avenue
Sylacauga, Alabama

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

_____

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Blue Bell produces Ice Cream and other dairy treats.

Raw material(s): Milk, Fruit

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

140,000.00 gpd (✓ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (____ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ✓ Yes ___ No

b. Categorical pretreatment standards ✓ Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

✓ Yes ___ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 4.00

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Nemak

Mailing Address: 2100 Old Sylacauga Highway
Sylacauga, Alabama

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

_____

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Casting Operations and High pressure Dicasting

Raw material(s): Aluminum

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

25,000.00 gpd (✓ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ✓ Yes ___ No

b. Categorical pretreatment standards ✓ Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

✓ Yes ___ No

F.2. **Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs).** Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 4.00

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Imerys

Mailing Address: 2412 Hill Road
Sylacauga, Alabama

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

_____

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Calcium Carbonate

Raw material(s): Calcium Carbonate

F.6. **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

20,000.00 gpd (✓ continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (___ continuous or ___ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits ✓ Yes ___ No

b. Categorical pretreatment standards ✓ Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

✓ Yes ___ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 4.00

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: B & H Transfer

Mailing Address: 705 Gene Stewart Blvd
Sylacauga, Alabama

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

_____

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Process waste waters resulting from truck tank washout of calcium carbonate and kaolin

Raw material(s): Calcium Carbonate and kaolin clay

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

10,000.00 gpd (✓ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ✓ Yes ___ No

b. Categorical pretreatment standards ✓ Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____Yes ✓ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ____Yes ✓ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____Truck _____Rail _____Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F.13 through F.15.) ✓ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ____No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ____Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

a. Locations of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

a. Outfall number _____

b. Location _____
(City or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ft.

d. Depth below surface (if applicable) _____ft.

e. Which of the following were monitored during the last year for this CSO?

____Rainfall ____CSO pollutant concentrations ____CSO frequency

____CSO flow volume ____Receiving water quality

f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

a. Give the number of CSO events in the last year.

_____ events (___ actual or ___ approx.)

b. Give the average duration per CSO event.

_____ hours (____ actual or ____ approx.)

c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

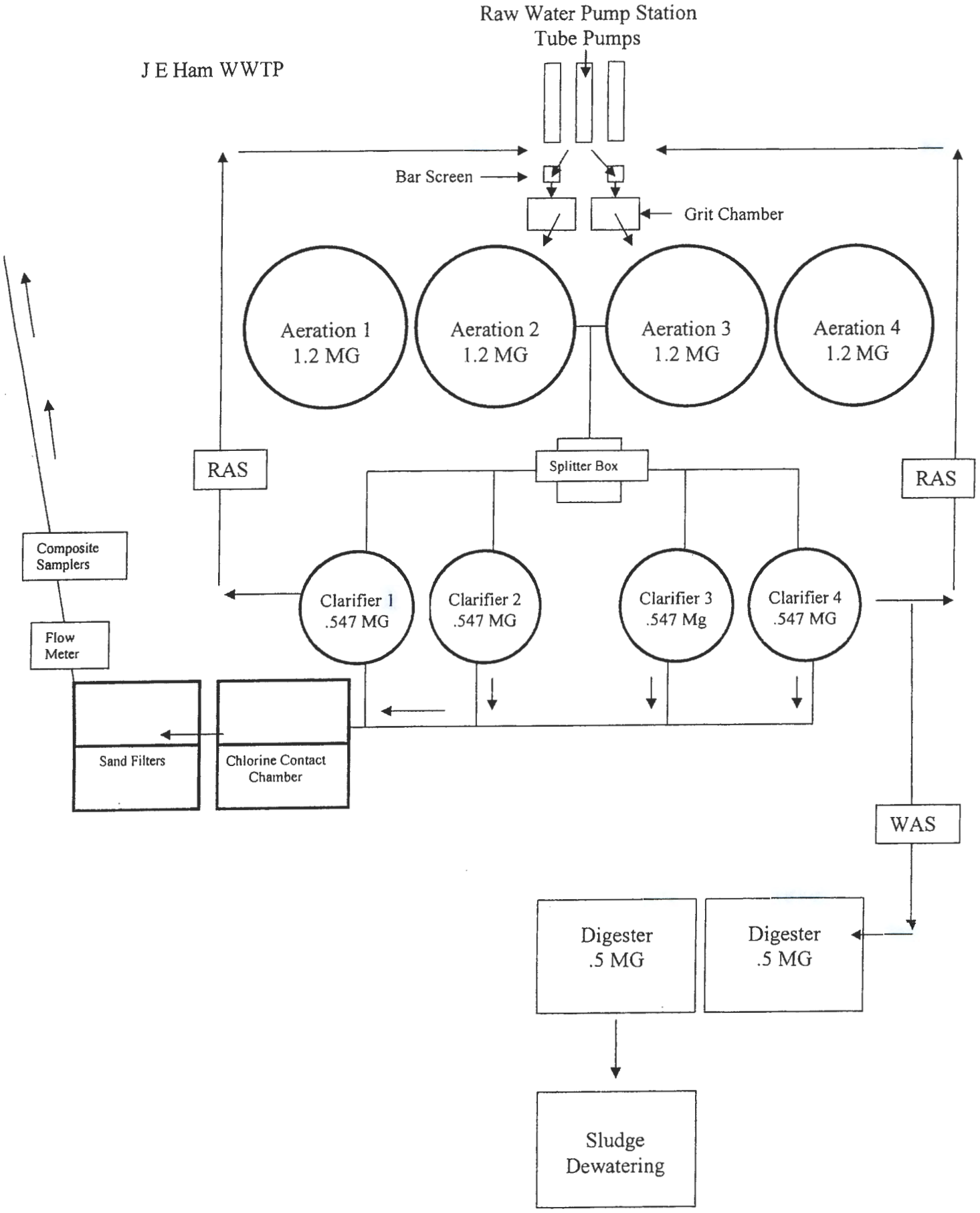
G.6. CSO Operations.

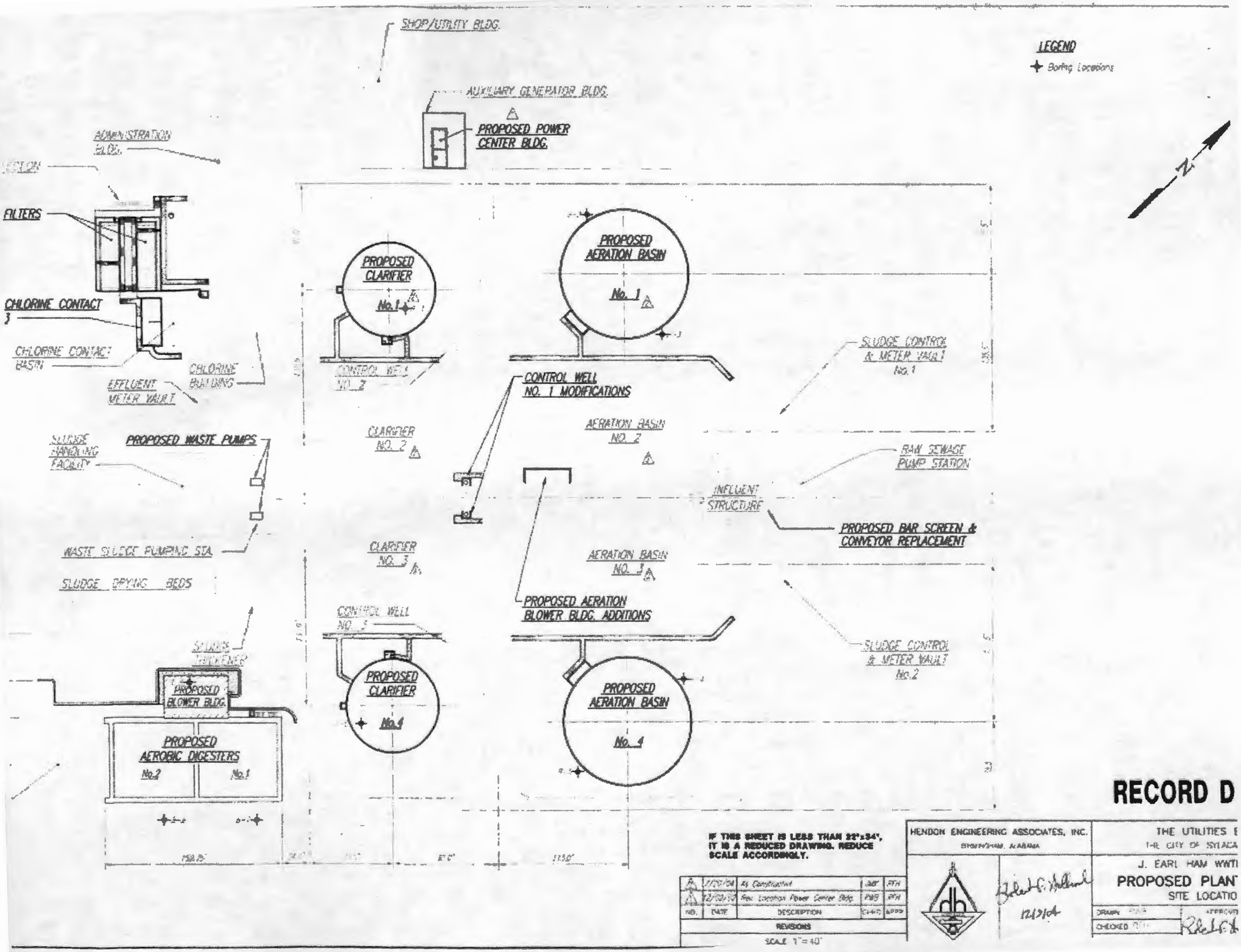
Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

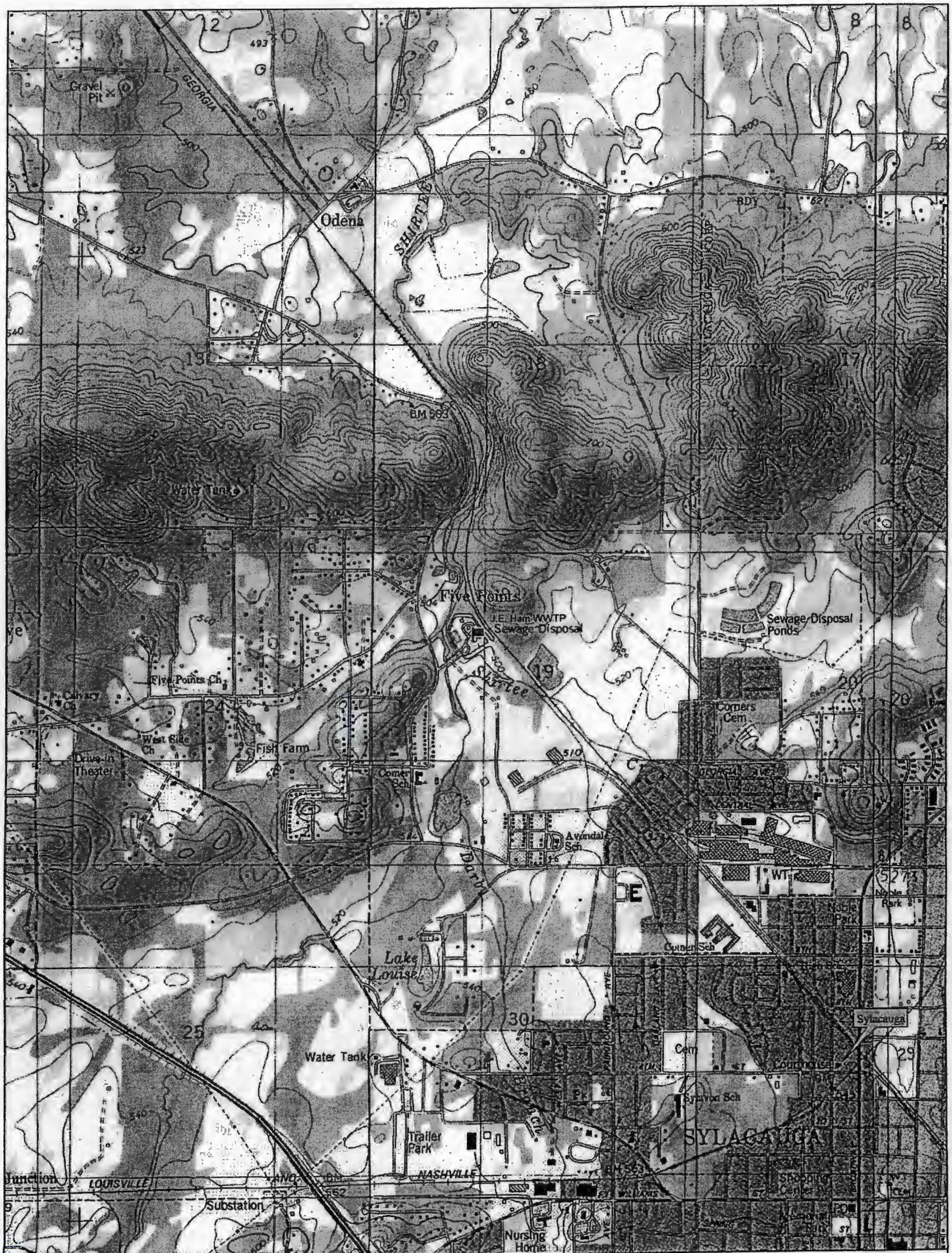
_____

_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.


J E Ham WWTP
Raw Water Pump Station
Tube Pumps
Bar Screen
Grit Chamber
Aeration 1
1.2 MG
Aeration 2
1.2 MG
Aeration 3
1.2 MG
Aeration 4
1.2 MG
RAS
Splitter Box
RAS
Composite
Samplers
Clarifier 1
.547 MG
Clarifier 2
.547 MG
Clarifier 3
.547 Mg
Clarifier 4
.547 MG
Flow
Meter
Sand Filters
Chlorine Contact
Chamber
WAS
Digester
.5 MG
Digester
.5 MG
Sludge
Dewatering


LEGEND
Boring Locations
SHOP/UTILITY BLDG.
AUXILIARY GENERATOR BLDG.
PROPOSED POWER CENTER BLDG.
ADMINISTRATION BLDG.
FILTERS
CHLORINE CONTACT 3
CHLORINE CONTACT BASIN
CHLORINE BUILDING
EFFLUENT METER VAULT
PROPOSED CLARIFIER No. 1
PROPOSED AERATION BASIN No. 1
CONTROL WELL NO. 2
CONTROL WELL NO. 1 MODIFICATIONS
SLUDGE CONTROL & METER VAULT No. 1
CLARIFIER NO. 2
AERATION BASIN NO. 2
SLUDGE HANDLING FACILITY
PROPOSED WASTE PUMPS
RAW SEWAGE PUMP STATION
INFLUENT STRUCTURE
PROPOSED BAR SCREEN & CONVEYOR REPLACEMENT
WASTE SLUDGE PUMPING STA.
CLARIFIER NO. 3
AERATION BASIN NO. 3
SLUDGE DRYING BEDS
PROPOSED AERATION BLOWER BLDG. ADDITIONS
CONTROL WELL NO. 3
SLUDGE CONTROL & METER VAULT No. 2
SLUDGE THICKENER
PROPOSED BLOWER BLDG.
PROPOSED CLARIFIER No. 4
PROPOSED AERATION BASIN No. 4
PROPOSED AEROBIC DIGESTERS
No. 2
No. 1
RECORD D
IF THIS SHEET IS LESS THAN 22"x34", IT IS A REDUCED DRAWING. REDUCE SCALE ACCORDINGLY.
HENDON ENGINEERING ASSOCIATES, INC.
BIRMINGHAM, ALABAMA
THE UTILITIES B
THE CITY OF SYLACA
J. EARL HAM WWTI
PROPOSED PLAN
SITE LOCATIO
As Constructed
Rev. Location Power Center Bldg.
NO. DATE DESCRIPTION CHKD APPR
REVISIONS
SCALE 1"=40'
12/3/04
DRAWN
CHECKED
APPROVED



Scale 1 : 25,000
1" = 2080 ft

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www.delorme.com

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IND. MUN BRANCH

Please print or type in the unshaded areas	EPA ID Number *(copy from item I of Form 1)*	Form Approved. OMB No. 2040-0086 Approval expires 5-31-92

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number *(list)*	B. Latitude			C. Longitude			D. Receiving Water *(name)*
002	***33***	***11***	***25.16***	***86***	***16***	***10.29***	***UT to Shirtee Creek***
003	***33***	***11***	***25.10***	***86***	***16***	***19.89***	***UT to Shirtee Creek***
004	***33***	***11***	***28.66***	***86***	***16***	***14.07***	***Shirtee Creek***

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
N/A					

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and idicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map Is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structure control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each are not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

 Continued on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
002	***.75 Acres***	***3.0 Acres***	***003***	***2.00 Acres***	***4.0 Acres***
004	***.75 Acres***	***3.48 Acres***			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

002 - There are no materials which could be exposed to stormwater in this area. All the materials are contained within aeration basins and clarifiers

003 - This area has drying beds that drain back to the head of the plant. A sludge press building exist with loading docks for sludge and polymers used to dewater.

004 - This area contains dumpsters with screanings and grit. The area drains back to the head of the plant. The shop has oil stored at the facility. The drains in the shop also go back to the head of the plant.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
002	***No treatment.***	
003		
004		

V. Non Stormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name of Official Title *(type or print)*	Signature	Date Signed
Water Quality Supervisor	David Bruce	4/18/18

B. provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

None

Continued from Page 2

EPA ID Number *(copy from Item I of Form 1)*

VII. Discharge Information

A,B,C, & D: See instruction before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables Vii-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

IX. Contact analysis Information

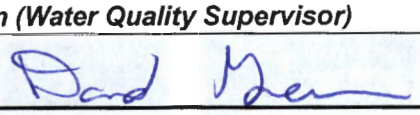
Were any of the analysis reported in item VII performed by a contact laboratory or consulting firm?

☐ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☒ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title *(type or print)*	B. Area Code and Phone No.
David Green (Water Quality Supervisor)	***256-401-2536***
C. Signature 	D. Date Signed 4/18/18

SW002

EPA ID Number *(copy from Item I of Form 1)*

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***1.65 mg/l***	N/A	***X***		***1***	***Natural***
Biological Oxygen Demand (BOD5)	***67 mg/l***		***X***		***1***	***Natural***
Chemical Oxygen Demand (COD)	***130 mg/l***		***X***		***1***	***Natural***
Total Suspended Solids (TSS)	***30 mg/l***		***X***		***1***	***Natural***
Total Organic Nitrogen	***.828 mg/nl***		***X***		***1***	***Natural***
Total Phosphorus	***.331 mg/pl***		***X***		***1***	***Natural***
pH	Minimum	Maximum	Minimum	Maximum	***1***	

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Continue on Reverse

SW003

EPA ID Number *(copy from Item I of Form 1)*

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***1.63 mg/l***	N/A	***X***		***1***	***Natural***
Biological Oxygen Demand (BOD5)	***22 mg/l***		***X***		***1***	***Natural***
Chemical Oxygen Demand (COD)	***60 mg/l***		***X***		***1***	***Natural***
Total Suspended Solids (TSS)	***60 mg/l***		***X***		***1***	***Natural***
Total Organic Nitrogen	***1.25 mg/nl***		***X***		***1***	***Natural***
Total Phosphorus	***.877 mg/pl***		***X***		***1***	***Natural***
pH	Minimum	Maximum	Minimum	Maximum	***1***	

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Continue on Reverse

SW004

EPA ID Number *(copy from Item I of Form 1)*

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***1.28 mg/l***	N/A	***X***		***1***	***Natural***
Biological Oxygen Demand (BOD5)	***71 mg/l***		***X***		***1***	***Natural***
Chemical Oxygen Demand (COD)	***133 mg/l***		***X***		***1***	***Natural***
Total Suspended Solids (TSS)	***10 mg/l***		***X***		***1***	***Natural***
Total Organic Nitrogen	***.721 mg/nl***		***X***		***1***	***Natural***
Total Phosphorus	***.852 mg/pl***		***X***		***1***	***Natural***
pH	Minimum	Maximum	Minimum	Maximum	***1***	

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Continued from the Front

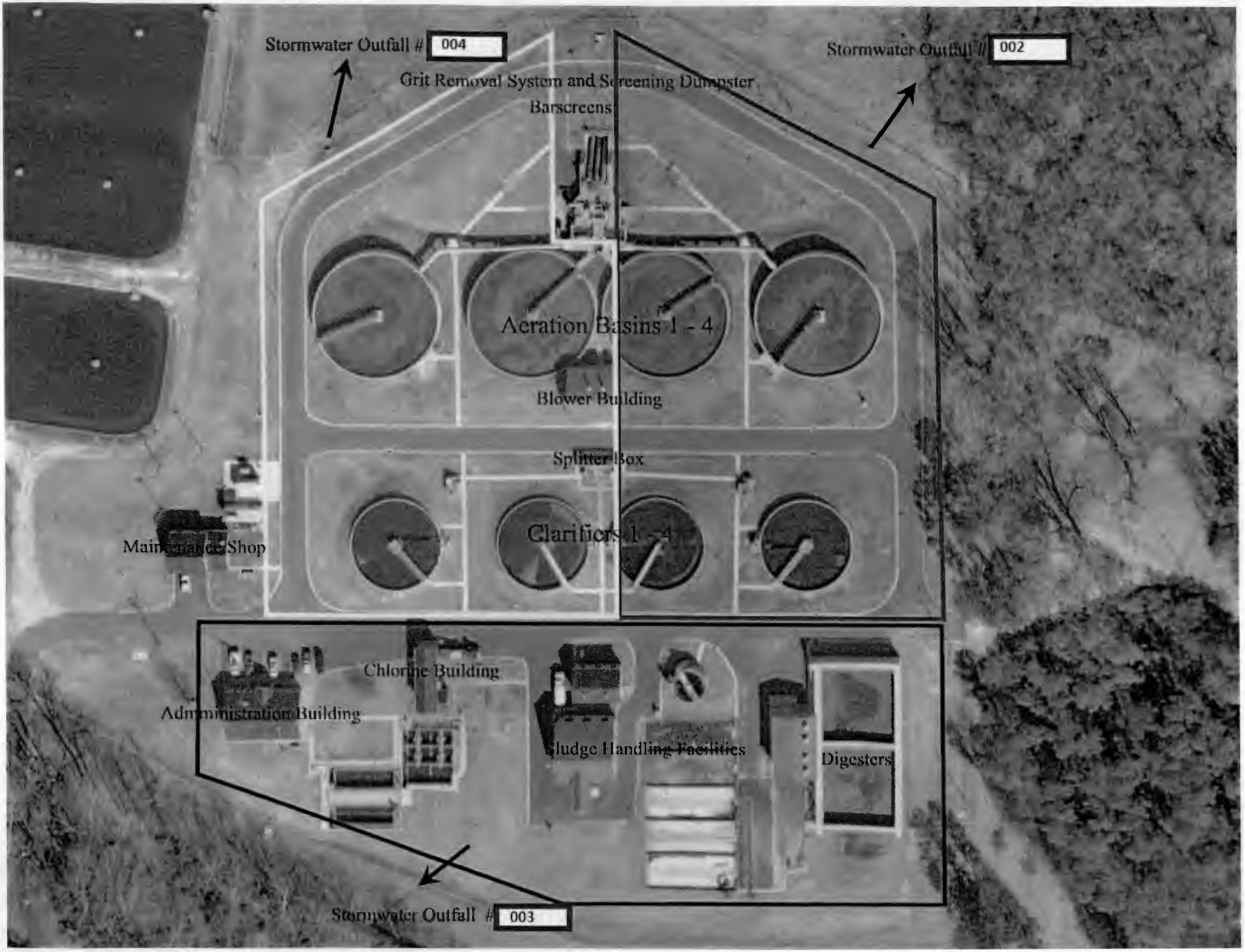
Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event *(gallons or specify units)*

7. Provide a description of the method of flow measurement or estimate.


Stormwater Outfall # 004
Grit Removal System and Screening Dumpster
Barscreens
Stormwater Outfall # 002
Aeration Basins 1 - 4
Blower Building
Splitter Box
Clarifiers 1 - 4
Maintenance Shop
Chlorine Building
Administration Building
Sludge Handling Facilities
Digesters
Stormwater Outfall # 003


004
003
N33°11'18.24"

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION
SUPPLEMENTARY INFORMATION FOR PUBLICLY-OWNED TREATMENT WORKS (POTW), OTHER TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS), AND PUBLIC WATER SUPPLY TREATMENT PLANTS

Instructions: This form should be used to submit the required supplementary information for an application for an NPDES individual permit for Publicly Owned Treatment Works (POTW) and other Treatment Works Treating Domestic Sewage (TWTDS). The completed application should be submitted to ADEM in duplicate. If insufficient space is available to address any item, please continue on an attached sheet of paper. Please mark "N/A" in the appropriate box when an item is not applicable to the applicant. **Please type or print legibly in blue or black ink.** Mail the completed application to:

ADEM-Water Division
Municipal Section
P O Box 301463
Montgomery, AL 36130-1463

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MAY 18 2018
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PURPOSE OF THIS APPLICATION

- ☐ Initial Permit Application for New Facility*
- ☐ Modification of Existing Permit
- ☐ Revocation & Reissuance of Existing Permit
- ☐ Initial Permit Application for Existing Facility*
- ☒ Reissuance of Existing Permit

** An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required.*

SECTION A – GENERAL INFORMATION

1. Facility Name: J. Earl Ham WWTP

   a. Operator Name: Utilities Board of the City of Sylacauga

   b. Is the operator identified in A.1.a, the owner of the facility? ☒ Yes ☐ No
   If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

   c. Name of Permittee* if different than Operator: _____
   **Permittee will be responsible for compliance with the conditions of the permit*

2. NPDES Permit Number: AL 0020001 (Not applicable if initial permit application)

3. Facility Physical Location: **(Attach a map with location marked; street, route no. or other specific identifier)**
   Street: 610 Old Sylacauga Highway
   City: Sylacauga County: Talladega State: AL Zip: 35150
   Facility Location (Front Gate): Latitude: 33.1909 Longitude: -86.2724

4. Facility Mailing Address: P.O. Box 207
   City: Sylacauga County: Talladega State: AL Zip: 35150

5. Responsible Official (as described on last page of this application):
   Name and Title: David Green (Water Quality Supervisor)
   Address: 1414 Edwards Street
   City: Sylacauga State: AL Zip: 35150
   Phone Number: 256-401-2536 Email Address: dgreen@sylacauga.net

6. Designated Facility/DMR Contact:

Name and Title: David Green (Water Quality Supervisor)

Phone Number: 256-401-2536 Email Address: dgreen@sylacauga.net

7. Designated Emergency Contact:

Name and Title: David Green (Water Quality Supervisor)

Phone Number: 256-267-0002 Email Address: dgreen@sylacauga.net

8. Please complete this section if the Applicant's business entity is a Proprietorship or Limited Liability Company (LLC) with a responsible official not listed in A.5.

Name and Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Email Address: _____

9. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State Environmental Permits presently held by the Applicant within the State of Alabama:

Permit Type	Permit Number	Held By
Fairmont WWTP	AL0020010	Sylacauga Utlities Board
Lake Howard WTP	ALG640038	Sylacauga Utilities Board

10. Identify all Administrative Complaints, Notices of Violation, Directives, or Administrative Orders, Consent Decrees, or Litigation concerning water pollution or other permit violations, if any against the Applicant within the State of Alabama in the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action

SECTION B – WASTEWATER DISCHARGE INFORMATION

1. List the following historical monthly flow rates recorded for the past five years for each outfall:

Outfall No.	Highest Flow in Last 12 Months (MGD)	Highest Daily Flow (MGD)	Average Flow (MGD)
001-4	13.09	13.09	2.93

2. Attach a process flow schematic of the treatment process, including the size of each unit operation and sample collection locations.

3. Do you share an outfall with another facility? ☐ Yes ☒ No (If no, continue to B.4)
For each shared outfall, provide the following:

Applicant's Outfall No.	Name of Other Permittee/Facility	NPDES Permit No.	Where is sample collected by Applicant?

4. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	☒ Yes	☐ No	☐ N/A
	Sampling Equipment	☒ Yes	☐ No	☐ N/A
Planned:	Flow Metering	☐ Yes	☐ No	☐ N/A
	Sampling Equipment	☐ Yes	☐ No	☐ N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

5. Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics (Note: Permit Modification may be required)? ☐ Yes ☒ No

Briefly describe these changes and any potential or anticipated effects on the wastewater quality and quantity: (Attach additional sheets if needed.)

SECTION C – WASTE STORAGE AND DISPOSAL INFORMATION

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES- permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this application:

Description of Waste	Description of Storage Location
Sewer Sludge	Aerobic Digester located on the plant site

Describe the location of any sites used for the ultimate disposal of solid or liquid waste materials or residuals (e.g. sludges) generated by any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Sewer Sludge which meets 503 requirements	1.26 Tons/Day	Land Application on the Board owned site at Bon Air

***Indicate any wastes disposed at an off-site treatment facility and any wastes that are disposed on-site**

SECTION D – INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

a. List the existing and proposed industrial source wastewater contributions to the municipal wastewater treatment system (Attach other sheets if necessary)

Company Name	Description of Industrial Wastewater	Existing or Proposed	Flow (MGD)	Subject to SID Permit?	
Nemak	Engine Block Casting	Existing	0.025	■ Yes	☐ No
Blue Bell	Creameries (Ice Cream Products)	Existing	0.140	■ Yes	☐ No
Imerys	Calcium Products	Existing	0.020	■ Yes	☐ No
B & H Transfer	Calcium Products and Kaolin Clay	Existing	0.010	■ Yes	☐ No

b. Are industrial wastewater contributions regulated via a locally approved sewer use ordinance? ■ Yes ☐ No
If yes, please attach a copy of the ordinance.

SECTION E – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? ☐ Yes ■ No
If yes, complete items E.1 – E.12 below:

		Yes	No
1.	Does the project require new construction?	☐	☐
2.	Will the project be a source of new air emissions?	☐	☐
3.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	If Yes, has the Corps of Engineers (COE) permit been received?	☐	☐
	COE Project No. _____		
4.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
5.	Are oyster reefs located near the project site?	☐	☐
	If Yes, include a map showing project and discharge location with respect to oyster reefs		
6.	Does the project involve the site developement, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)?	☐	☐
7.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
8.	Does the project involve construction on beaches or dune areas?	☐	☐
9.	Will the project interfere with public access to coastal waters?	☐	☐
10.	Does the project lie within the 100-year floodplain?	☐	☐
11.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
12.	Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	☐	☐
	If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

SECTION F – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR §131.12 and the ADEM Admin. Code r. 335-6-10-.04 for anti-degradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? ☐ Yes ☒ No
   If yes, complete F.2 below. If no, go to Section G.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in F.1? ☒ Yes ☐ No

   If yes, do not complete this section.

   If no and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete F.2.A – F.2.F below, ADEM Form 311-Alternatives Analysis, and either ADEM Form 312 or ADEM Form 313- Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector Projects, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, must be provided for **each** treatment discharge alternative considered technically viable. ADEM forms can be found on the Department's website at http://adem.alabama.gov/DeptForms/.

   Information required for new or increased discharges to high quality waters:

   A. What environmental or public health problem will the discharger be correcting?

   _____

   B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

   _____

   C. How much reduction in employment will the discharger be avoiding?

   _____

   D. How much additional state or local taxes will the discharger be paying?

   _____

   E. What public service to the community will the discharger be providing?

   _____

   F. What economic or social benefit will the discharger be providing to the community?

   _____

SECTION G – EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a POTW or other TWTDS depending on the number and types of discharges or outfalls. The EPA application forms are found on the Department's website at http://adem.alabama.gov/programs/water/waterforms.cnt. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for new or existing discharges of sanitary wastewater from Publicly-Owned Treatment Works (POTW) and Other Treatment Works Treating Domestic Sewage (TWTDS) must submit Form 2A.
3. Applicants for new or existing land application of sanitary wastewater must submit Form 2A and, if the land application site is not completely bermed to prevent runoff, applicants must also submit Form 2F.
4. Applicants for new and existing discharges of process wastewater from water treatment facilities (i.e. public water supply treatment plants) must submit Form 2C.
5. Applicants that generate sewage sludge, derive a material from sewage sludge, or dispose of sewage sludge must submit Part 2 of Form 2S.

SECTION H– ENGINEERING REPORT/BMP PLAN REQUIREMENTS

Any Engineering Report or Best Management Practice (BMP) Plans required to be submitted to ADEM by the applicant must be in accordance with ADEM 335-6-6-.08(i) & (j).

SECTION I– RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?	Included in TMDL?*
001-4	Shirtee Creek	■ Yes ☐ No	■ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);

(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);

(3) Requested interim limitations, if applicable;

(4) Date of final compliance with the TMDL limitations; and,

(5) Any other additional information available to support requested compliance schedule.

SECTION J – APPLICATION CERTIFICATION

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Signature of Responsible Official: David Green Date Signed: 5/18/2018

Name and Title: David Green (Water Quality Supervisor)

If the Responsible Official signing this application is <u>not</u> identified in Section A.5 or A.8, provide the following information:

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Email Address: _____

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;

(b) In the case of a partnership, by a general partner;

(c) In the case of a sole proprietorship, by the proprietor; or

(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.


W 86°16'26.4"
Street View
N33°11'18.24"

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

Form Approved 1/14/99
OMB Number 2040-0086

FORM **2S** NPDES

NPDES FORM 2S APPLICATION OVERVIEW

PRELIMINARY INFORMATION

This page is designed to indicate whether the applicant is to complete Part 1 or Part 2. Review each category, and then complete Part 1 or Part 2, as indicated. For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

FACILITIES INCLUDED IN ANY OF THE FOLLOWING CATEGORIES MUST COMPLETE PART 2 (PERMIT APPLICATION INFORMATION).

1. Facilities with a currently effective NPDES permit.

2. Facilities which have been directed by the permitting authority to submit a full permit application at this time.

ALL OTHER FACILITIES MUST COMPLETE PART 1 (LIMITED BACKGROUND INFORMATION).

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FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

Form Approved 1/14/99
OMB Number 2040-0086

PART 1: LIMITED BACKGROUND INFORMATION

This part should be completed only by "sludge-only" facilities - that is, facilities that do not currently have, and are not applying for, an NPDES permit for a direct discharge to a surface body of water.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

1. Facility Information.

a. Facility name: J. Earl Ham WWTP

b. Mailing Address: P. O Box 207 Sylacauga, AL 35150

c. Contact person: David Green
Title: Water Quality Supervisor
Telephone number: (256) 401-2536

d. Facility Address (not P.O. B ox): 610 Old Sylacauga Highway

e. Indicate the type of facility

✓ Publicly owned treatment works (POTW) ____ Privately owned treatment works

____ Federally owned treatment works ____ Blending or treatment operation

____ Surface disposal site ____ Sewage sludge incinerator

____ Other (describe) ____

2. Applicant Information.

a. Applicant name: David Green

b. Mailing Address: P.O. Box 207 Sylacauga, AL 35150

c. Contact person: David Green
Title: Water Quality Supervisor
Telephone number: (256) 401-2536

d. Is the applicant the owner or operator (or both) of this facility?

✓ owner ✓ operator

e. Should correspondence regarding this permit be directed to the facility or the applicant?

____ facility ✓ applicant

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

Form Approved 1/14/99
OMB Number 2040-0086

3. **Sewage Sludge Amount.** Provide the total dry metric tons per latest 365 day period of sewage sludge handled under the following practices:

a. Amount generated at the facility 417.00 dry metric tons
b. Amount received from off site _____ dry metric tons
c. Amount treated or blended on site _____ dry metric tons
d. Amount sold or given away in a bag or other container for application to the land _____ dry metric tons
e. Amount of bulk sewage sludge shipped off site for treatment or blending _____ dry metric tons
f. Amount applied to the land in bulk form _____ dry metric tons
g. Amount placed on a surface disposal site _____ dry metric tons
h. Amount fired in a sewage sludge incinerator _____ dry metric tons
i. Amount sent to a municipal solid waste landfill _____ dry metric tons
j. Amount used or disposed by another practice _____ dry metric tons
Describe _____

4. **Pollutant Concentrations.** Using the table below or a separate attachment, provide existing sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR part 503 for this facility's expected use or disposal practices. If available, base data on three or more samples taken at least one month apart and no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC	0.00	EPA Method 6010	19.4 mg/kg
CADMIUM	0.00	EPA Method 6010	22.4 mg/kg
CHROMIUM	36.50	EPA Method 6010	36.5 mg/kg
COPPER	323.00	EPA Method 6010	131 mg/kg
LEAD	49.90	EPA Method 6010	26.4 mg/kg
MERCURY	4.20	EPA Method 7471	3.81 mg/kg
MOLYBDENUM	38.70	EPA Method 6010	15.3 mg/kg
NICKEL	0.00	EPA Method 6010	21.4 mg/kg
SELENIUM	35.40	EPA Method 6010	16.6 mg/kg
ZINC	771.00	EPA Method 6010	112 mg/kg

5. **Treatment Provided At Your Facility.**

a. Which class of pathogen reduction does the sewage sludge meet at your facility?

_____ Class A ✓ Class B _____ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

Aerobic Digestion

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
__✓__ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ Option 9 (Injection below land surface)
_____ Option 10 (Incorporation into soil within 6 hours)
_____ Option 11 (Covering active sewage sludge unit daily)
_____ None or unknown

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:

Aerobic Digestion

6. **Sewage Sludge Sent to Other Facilities.** Does the sewage sludge from your facility meet the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of the vector attraction options 1-8?
_____ Yes __✓__ No

If yes, go to question 8 (Certification).

If no, is sewage sludge from your facility provided to another facility for treatment, distribution, use, or disposal?
_____ Yes __✓__ No

If no, go to question 7 (Use and Disposal Sites).

If yes, provide the following information for the facility receiving the sewage sludge:

a. Facility name _____

b. Mailing address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Which activities does the receiving facility provide? (Check all that apply)

_____ Treatment or blending
_____ Land application
_____ Incineration
_____ Sale or give-away in bag or other container
_____ Surface disposal
_____ Other (describe):

_____

_____

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

Form Approved 1/14/99
OMB Number 2040-0086

7. Use and Disposal Sites. Provide the following information for each site on which sewage sludge from this facility is used or disposed:

a. Site name or number: Bon Air Property

b. Contact person: David Green

Title: Water Quality Supervisor

Telephone: (256) 401-2536

c. Site location (Complete 1 or 2)

1. Street or Route #: _____

County: Talladega

City or Town: Bon Air State: AL Zip: 35150

2. Latitude: 33.2624 Longitude: -86.3275

d. Site type (Check all that apply)

✓ Agricultural	____ Lawn or home garden	____ Forest
____ Surface disposal	____ Public Contact	____ Incineration
____ Reclamation	____ Municipal Solid Waste Landfill	____ Other (describe): _____

8. Certification. Sign the certification statement below. (Refer to instructions to determine who is an officer for purposes of this certification.)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: David Green Water Quality Supervisor

Signature: David Green

Telephone number: (256) 401-2536

Date signed: 4/20/18

SEND COMPLETED FORMS TO:

PART 2: PERMIT APPLICATION INFORMATION

Complete this part if you have an effective NPDES permit or have been directed by the permitting authority to submit a full permit application at this time. In other words, complete this part if your facility has, or is applying for, an NPDES permit.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

APPLICATION OVERVIEW — SEWAGE SLUDGE USE OR DISPOSAL INFORMATION

Part 2 is divided into five sections (A-E). Section A pertains to all applicants. The applicability of Sections B, C, D, and E depends on your facility's sewage sludge use or disposal practices. The information provided on this page indicates which sections of Part 2 to fill out.

1. **SECTION A: GENERAL INFORMATION.**

   Section A must be completed by all applicants

2. **SECTION B: GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE.**

   Section B must be completed by applicants who either:

   1) Generate sewage sludge, or

   2) Derive a material from sewage sludge.

3. **SECTION C: LAND APPLICATION OF BULK SEWAGE SLUDGE.**

   Section C must be completed by applicants who either:

   1) Apply sewage to the land, or

   2) Generate sewage sludge which is applied to the land by others.

   NOTE: Applicants who meet either or both of the two above criteria are exempted from this requirement if <u>all</u> sewage sludge from their facility falls into one of the following three categories:

   1) The sewage sludge from this facility meets the ceiling and pollutant concentrations, Class A pathogen reduction requirements, and one of vector attraction reduction options 1-8, as identified in the instructions, or
   2) The sewage sludge from this facility is placed in a bag or other container for sale or give-away for application to the land, or
   3) The sewage sludge from this facility is sent to another facility for treatment or bending.

4. **SECTION D: SURFACE DISPOSAL**

   Section D must be completed by applicants who own or operate a surface disposal site.

5. **SECTION E: INCINERATION**

   Section E must be completed by applicants who own or operate a sewage sludge incinerator.

Form Approved 1/14/99
OMB Number 2040-0086

A. GENERAL INFORMATION

All applicants must complete this section.

A.1. Facility Information.

a. Facility name: J. Earl Ham WWTP

b. Mailing Address: P.O. Box 207 Sylacauga, AL 35150

c. Contact person: David Green

Title: Water Quality Supervisor

Telephone number: (256) 401-2536

d. Facility Address (not P.O. Box): 610 Old Sylacauga Highway

e. Is this facility a Class I sludge management facility? ____ Yes ✓ No

f. Facility design flow rate: 4.80 mgd

g. Total population served: 15,650.00

h. Indicate the type of facility:

✓ Publicly owned treatment works (POTW) ____ Privately owned treatment works
____ Federally owned treatment works ____ Blending or treatment operation
____ Surface disposal site ____ Sewage sludge incinerator
____ Other (describe)

A.2. Applicant Information. If the applicant is different from the above, provide the following:

a. Applicant name

b. Mailing Address

c. Contact person

Title

Telephone number

d. Is the applicant the owner or operator (or both) of this facility?

✓ owner ✓ operator

e. Should correspondence regarding this permit should be directed to the facility or the applicant.

____ facility ✓ applicant

A.3. Permit Information.

a. Facility's NPDES permit number (if applicable): AL0020001

b. List, on this form or an attachment, all other Federal, State, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number	Type of Permit

A.4. Indian Country. Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?

_____Yes ___✓___No If yes, describe: _____

A.5. Topographic Map. Provide a topographic map or maps (or other appropriate map(s) if a topographic map is unavailable) that show the following information. Map(s) should include the area one mile beyond all property boundaries of the facility:

a. Location of all sewage sludge management facilities, including locations where sewage sludge is stored, treated, or disposed.

b. Location of all wells, springs, and other surface water bodies, listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundaries.

A.6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit, including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

A.7. Contractor Information.

Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _____Yes ___✓___No

If yes, provide the following for each contractor (attach additional pages if necessary):

a. Name _____

b. Mailing Address _____

_____

c. Telephone Number _____

d. Responsibilities of contractor _____

_____

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

Form Approved 1/14/99
OMB Number 2040-0086

A.8. Pollution Concentrations: Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR Part 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC	0.00	EPA 6010	19.4 mg/kg
CADMIUM	0.00	EPA 6010	22.4 mg/kg
CHROMIUM	35.60	EPA 6010	36.5 mg/kg
COPPER	323.00	EPA 6010	131 mg/kg
LEAD	49.90	EPA 6010	26.4 mg/kg
MERCURY	4.20	EPA 7471	3.81 mg/kg
MOLYBDENUM	38.70	EPA 6010	15.3 mg/kg
NICKEL	0.00	EPA 6010	21.4 mg/kg
SELENIUM	35.40	EPA 6010	16.6 mg/kg
ZINC	771.00	EPA 6010	112 mg/kg

A.9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of Form 2S you have completed and are submitting:

✓ Part 1 Limited Background Information packet

Part 2 Permit Application Information packet:

✓ Section A (General Information)
✓ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
✓ Section C (Land Application of Bulk Sewage Sludge)
____ Section D (Surface Disposal)
____ Section E (Incineration)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: David Green (Water Quality Supervisor)

Signature: David Green Date signed: 4/20/18

Telephone number: 256-401-2536

Upon request of the permitting authority, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
J. Earl Ham WWTP AL0020001

Form Approved 1/14/99
OMB Number 2040-0086

B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge.

B.1. Amount Generated On Site.

Total dry metric tons per 365-day period generated at your facility: 417.00 dry metric tons

B.2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use, or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

a. Facility name: Fairmont WWTP

b. Mailing Address: P.O. Box 207

c. Contact person: David Green

Title: Water Quality Supervisor

Telephone number: (256) 401-2536

d. Facility Address (not P.O. Box): 885 Brooks Road

e. Total dry metric tons per 365-day period received from this facility: 2.27 dry metric tons

f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics.
Aerobic Digestion

B.3. Treatment Provided At Your Facility.

a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?

_____ Class A ✓ Class B _____ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:
Aerobic Digestion

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
✓ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None or unknown

B.3. Treatment Provided At Your Facility. (con't)

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:
Aerobic Digestion

e. Describe, on this form or another sheet of paper, any other sewage sludge treatment or blending activities not identified in (a) - (d) above:

Complete Section B.4 if sewage sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of §503.13, the Class A pathogen reduction requirements in §503.32(a), and one of the vector attraction reduction requirements in § 503.33(b)(1)-(8) and is land applied. Skip this section if sewage sludge from your facility does not meet all of these criteria.

B.4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1-8.

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons

b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away for application to the land?

_____Yes _____No

Complete Section B.5. if you place sewage sludge in a bag or other container for sale or give-away for land application. Skip this section if the sewage sludge is covered in Section B.4.

B.5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

Complete Section B.6 if sewage sludge from your facility is provided to another facility that provides treatment or blending. This section does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this section if the sewage sludge is covered in Sections B.4 or B.5. If you provide sewage sludge to more than one facility, attach additional pages as necessary.

B.6. Shipment Off Site for Treatment or Blending.

a. Receiving facility name _____

b. Mailing address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____

B.6. Shipment Off Site for Treatment or Blending. (con't)

e. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?____ Yes ____ No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

_____ Class A _____ Class B _____ Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

f. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge?
_____Yes _____No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge.

g. Does the receiving facility provide any additional treatment or blending activities not identified in (c) or (d) above? ____ Yes ____ No

If yes, describe, on this form or another sheet of paper, the treatment or blending activities not identified in (c) or (d) above:

h. If you answered yes to (e), (f), or (g), attach a copy of any information you provide the receiving facility to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

i. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? _____ Yes _____ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

Complete Section B.7 if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in:

- **Section B.4 (it meets Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8); or**
- **Section B.5 (you place it in a bag or other container for sale or give-away for application to the land); or**
- **Section B.6 (you send it to another facility for treatment or blending).**

B.7. Land Application of Bulk Sewage Sludge.

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 417.00 dry metric tons

B.7. Land Application of Bulk Sewage Sludge. (con't)

b. Do you identify all land application sites in Section C of this application? ✓ Yes _____ No

If no, submit a copy of the land application plan with application (see instructions).

c. Are any land application sites located in States other than the State where you generate sewage sludge or derive a material from sewage sludge? _____ Yes ✓ No

If yes, describe, on this form or another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

_____

_____

Complete Section B.8 if sewage sludge from your facility is placed on a surface disposal site.

B.8. Surface Disposal.

a. Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

_____ Yes _____ No

If no, answer B.8.c through B.8.f for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one such surface disposal site, attach additional pages as necessary.

c. Site name or number _____

d. Contact person _____

Title _____

Telephone number _____

Contact is _____Site owner _____Site operator

e. Mailing address _____

_____

f. Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period: _____ dry metric tons

Complete Section B.9 if sewage sludge from your facility is fired in a sewage sludge incinerator.

B.9. Incineration.

a. Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? _____ Yes _____ No

If no, complete B.9.c through B.9.f for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one such sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number: _____

d. Contact person: _____

Title: _____

Telephone number: _____

Contact is: _____ Incinerator owner _____ Incinerator operator

B.9. Incineration. (con't)

e. Mailing address: _____

_____

f. Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period: _____ dry metric tons

Complete Section B.10 if sewage sludge from this facility is placed on a municipal solid waste landfill.

B.10. Disposal in a Municipal Solid Waste Landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

a. Name of landfill _____

b. Contact person _____

Title _____

Telephone number _____

Contact is _____ Landfill owner _____ Landfill operator

c. Mailing address _____

_____

d. Location of municipal solid waste landfill:

Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

e. Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:

_____ dry metric tons

f. List, on this form or an attachment, the numbers of all other Federal, State, and local permits that regulate the operation of this municipal solid waste landfill.

Permit Number	Type of Permit
_____	_____
_____	_____
_____	_____

g. Submit, with this application, information to determine whether the sewage sludge meets applicable requirements for disposal of sewage sludge in a municipal solid waste landfill (e.g., results of paint filter liquids test and TCLP test)

h. Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR Part 258?

_____ Yes _____ No

Form Approved 1/14/99
OMB Number 2040-0086

C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete Section C for sewage sludge that is applied to the land, unless any of the following conditions apply:

- **The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8 (fill out B.4 Instead); or**
- **The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 Instead); or**
- **You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).**

Complete Section C for every site on which the sewage sludge that you reported in Section B.7 is applied.

C.1. Identification of Land Application Site.

a. Site name or number: Bon Air Property

b. Site location (Complete 1 and 2).

1. Street or Route #: _____

County: Talladega

City or Town: Bon Air State: AL Zip: 35150

2. Latitude: 33.2624 Longitude: -86.3275

Method of latitude/longitude determination

✓ USGS map _____ Field survey _____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

C.2. Owner Information.

a. Are you the owner of this land application site? ✓ Yes _____ No

b. If no, provide the following information about the owner:

Name: _____

Telephone number: _____

Mailing Address: _____

_____

C.3. Applier Information.

a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?
✓ Yes _____ No

b. If no, provide the following information for the person who applies:

Name: _____

Telephone number: _____

Mailing Address: _____

_____

C.4. Site Type: Identify the type of land application site from among the following.

✓ Agricultural land _____ Forest _____ Public contact site

_____ Reclamation site _____ Other. Describe: _____

C.5. Crop or Other Vegetation Grown on Site.

a. What type of crop or other vegetation is grown on this site?
Bermuda Grass and Hay

b. What is the nitrogen requirement for this crop or vegetation?
224 Kg/Ha

C.6. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
_____ Yes ___✓___ No

If yes, answer C.6.a and C.6.b;

a. Indicate which vector attraction reduction option is met:

_____ Option 9 (Injection below land surface)
_____ Option 10 (Incorporation into soil within 6 hours)

b. Describe, on this form or another sheet of paper, any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge:

Complete Question C.7 only if the sewage sludge applied to this site since July 20, 1993, is subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2).

C.7. Cumulative Loadings and Remaining Allotments.

a. Have you contacted the permitting authority in the State where the bulk sewage sludge subject to CPLRs will be applied, to ascertain whether bulk sewage sludge subject to CPLRs has been applied to this site on or since July 20, 1993? _____ Yes ___✓___ No

If no, sewage sludge subject to CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority _____

Contact Person _____

Telephone number _____

b. Based upon this inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?
_____ Yes ___✓___ No

If no, skip C.7.c.

c. Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge to CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name _____

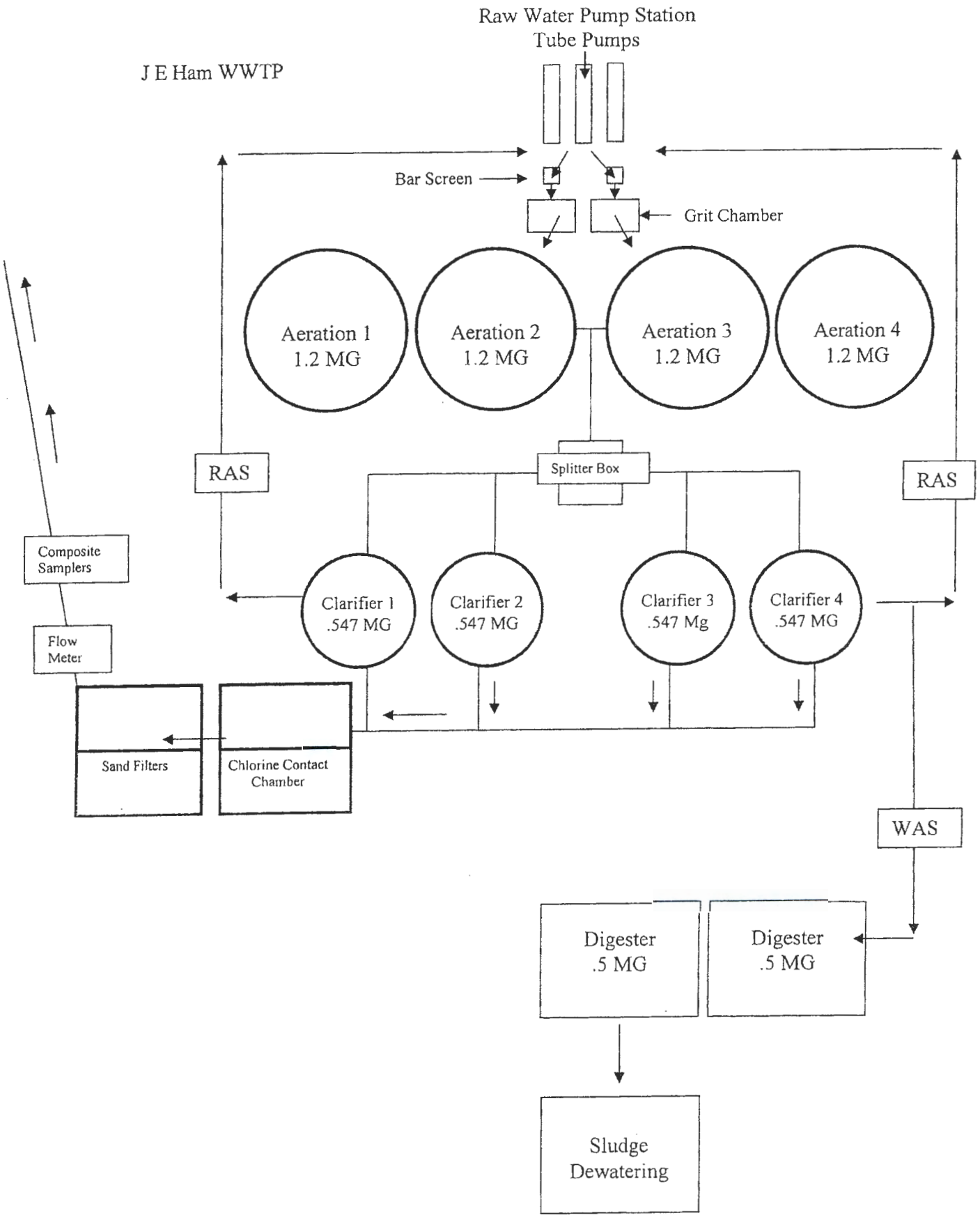
Mailing Address _____

_____

Contact person _____

Title _____

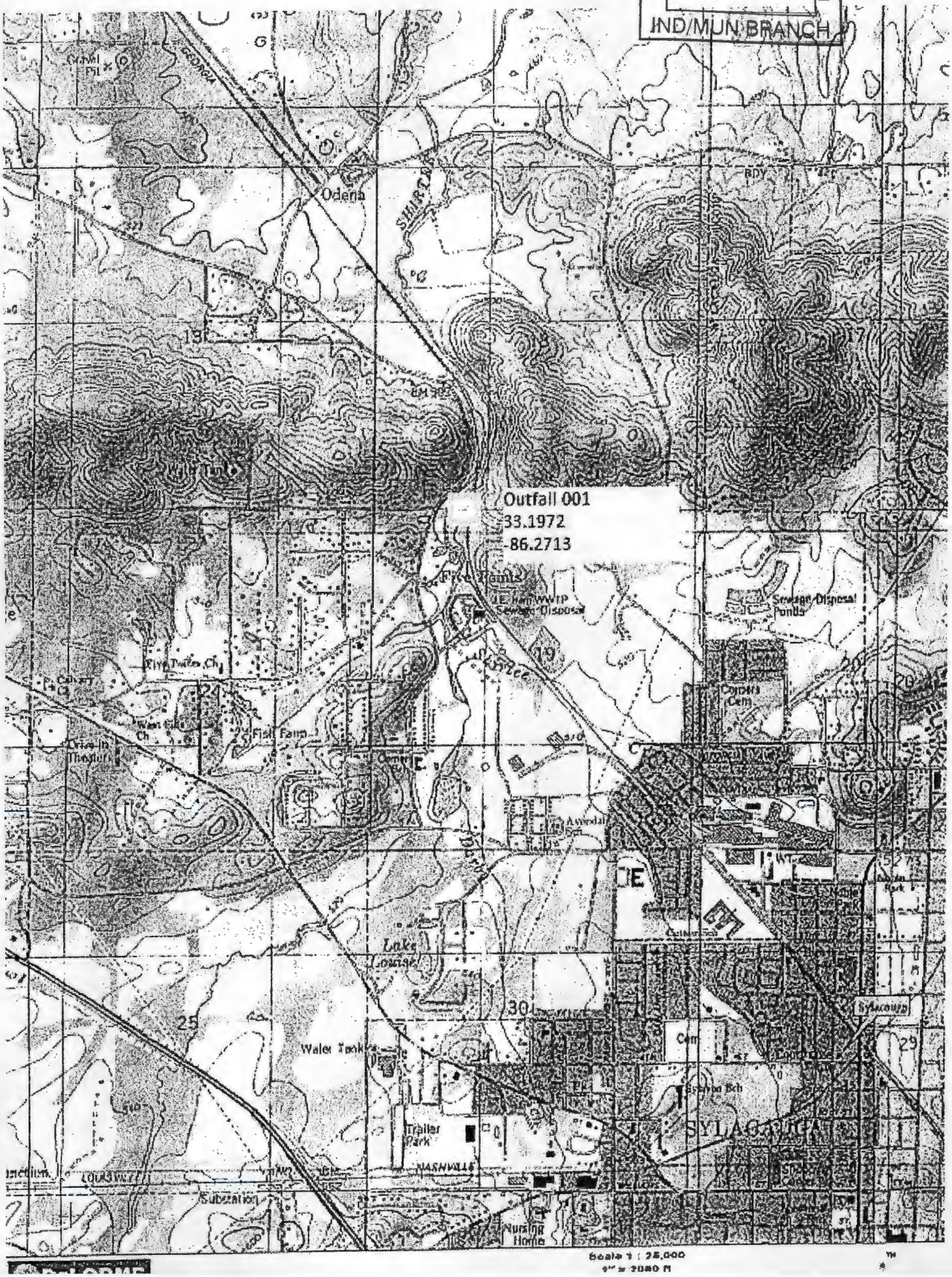
Telephone number _____


J E Ham WWTP
Raw Water Pump Station
Tube Pumps
Bar Screen
Grit Chamber
Aeration 1
1.2 MG
Aeration 2
1.2 MG
Aeration 3
1.2 MG
Aeration 4
1.2 MG
RAS
Splitter Box
RAS
Composite
Samplers
Clarifier 1
.547 MG
Clarifier 2
.547 MG
Clarifier 3
.547 Mg
Clarifier 4
.547 MG
Flow
Meter
Sand Filters
Chlorine Contact
Chamber
WAS
Digester
.5 MG
Digester
.5 MG
Sludge
Dewatering


erty
our map.
nction Agency
Zoom in to view parcels
Direction: 0.0
Central Of Georgia Railroa

N39°11'18.24"
W 86°16'26.4"
Street View

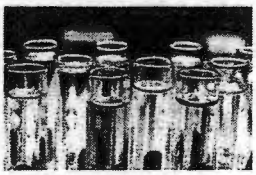
RECEIVED
DEC 11 2018
IND/MUN BRANCH



ENVIRONMENTAL RESOURCE
ANALYSTS, INC.

2975 BROWN COURT
AUBURN, AL 36830
334-502-3444
(FAX) 334-502-8888

21 Years in Business, and counting
http://www.eralab.com



Laboratory Report

Report # 69-0217

Prepared For Sylacauga
P.O. Box 207
Sylacauga, AL 35150

Attention: Kellye Remson

Number of Pages in Report: 19

We appreciate the opportunity to provide testing results for you. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data, please do not hesitate to contact the Lab Manager or the Lab Director at the number listed above.

This report cannot be reproduced, except in full, without the written approval from **ERA, Inc.**

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report No 69-0217 Date Received: 2/15/2017

Location eff PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
165428-01									
Cyanide	<0.0040	mg/L		0.004	0.01	EPA 335.4(1993)	02/13/17 08:35	02/23/17 18:17	MR
Oil & Grease	<1.00	mg/L		1	5	EPA 1664A	02/13/17 08:35	02/24/17 09:00	HK
Phenol	0.0160	mg/L	N10	0.015	0.05	EPA 420.1(1978)	02/13/17 08:35	02/27/17 09:00	BEH
165428-02									
Ammonia	1.30	mg N/L		0.1	0.2	EPA 350.1(1993)	02/15/17 07:25	02/17/17 14:57	CR
Antimony	<20.0	ug/L		20	50	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Arsenic	<22.0	ug/L		22	50	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Beryllium	<4.0	ug/L		4	5	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Cadmium	<4.0	ug/L		4	10	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Chromium	<7.0	ug/L		7	25	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Copper	13.2	ug/L		6	10	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Hardness	153	mg/L CaCO3		4.5	4.5	SM 2340C-1997	02/15/17 07:25	03/06/17 11:30	AR
Lead	<26.0	ug/L		26	50	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Nickel	<8.0	ug/L		8	10	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
NO2-/NO3	6.70	mg N/L		0.022	0.1	EPA 353.2(1993)	02/15/17 07:25	02/22/17 14:27	CR
Selenium	<26.0	ug/L		26	50	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
Silver	<8.0	ug/L		8	10	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
TDS	265	mg/L(Dry)		2	2	SM 2540C-1997	02/15/17 07:25	02/20/17 16:00	BEH
Thallium	<34.0	ug/L		34	50	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR
TKN	1.39	mg N/L		0.57	1.25	EPA 351.2(1993)	02/15/17 07:25	03/03/17 13:23	CR
Total Phosphorus	0.950	mg P/L	N10, N10	0.065	1	EPA 365.4 (1974)	02/15/17 07:25	03/03/17 13:23	CR
Zinc	44.0	ug/L		10	25	EPA 200.7(1994)	02/15/17 07:25	02/21/17 15:29	CR

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Results of Analysis For: Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Erin Consuegra 03/28/2017

Erin Consuegra, QA/QC Manager Date

This person may be contacted for questions at the number listed above.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

BMDL = Below Method Detection Limit

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

For EPA 624: The end CCV standard was prepared incorrectly causing the %RPD to fail for several analytes.

For EPA 625 the tailing factor for Pentachlorophenol did not meet the method requirement of 5.00.

Several EPA 625 compounds did not meet the 0-20% precision requirement between the matrix spike and spike duplicate. All compounds met accuracy requirements.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The BFB check failed for one mass.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O32 = This CCC compound was not within its target range of <20% drift of RF from the compound at initial calibration.

O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.

O41 = For the sample spike and spike duplicate, the specified precision of 0-20% was not met for this compound.

O61 = Only a partial peak detected in standards.

O92 = Acrolein was determined from a sample that was preserved to a pH of less than 2.0.

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0217
Date Received: 2/15/2017

Sample Number: 165428-01
Description: grab

Collection Date: 02/13/2017 8:35
Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Acrolein	EPA 624	BMDL	ug/L	30.8	50	02/17/17 14:04	EC	O41,
Acrylonitrile	EPA 624	BMDL	ug/L	17	50	02/17/17 14:04	EC	O92
Benzene	EPA 624	BMDL	ug/L	1.69	5	02/17/17 14:04	EC	
bromoform	EPA 624	BMDL	ug/L	2.35	5	02/17/17 14:04	EC	
bromomethane	EPA 624	BMDL	ug/L	2.34	5	02/17/17 14:04	EC	O41
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.82	5	02/17/17 14:04	EC	
chlorobenzene	EPA 624	BMDL	ug/L	3.82	5	02/17/17 14:04	EC	
chlorodibromomethane	EPA 624	BMDL	ug/L	2	5	02/17/17 14:04	EC	
chloroethane	EPA 624	BMDL	ug/L	2.28	5	02/17/17 14:04	EC	
chloroform	EPA 624	BMDL	ug/L	1.84	5	02/17/17 14:04	EC	
chloromethane	EPA 624	BMDL	ug/L	2.7	5	02/17/17 14:04	EC	
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	5.09	10	02/17/17 14:04	EC	
dichlorobromomethane	EPA 624	BMDL	ug/L	1.79	5	02/17/17 14:04	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	02/17/17 14:04	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	02/17/17 14:04	EC	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.98	5	02/17/17 14:04	EC	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.55	5	02/17/17 14:04	EC	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.84	5	02/17/17 14:04	EC	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.94	5	02/17/17 14:04	EC	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.4	5	02/17/17 14:04	EC	
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.53	5	02/17/17 14:04	EC	
Ethylbenzene	EPA 624	BMDL	ug/L	1.92	5	02/17/17 14:04	EC	
methylene chloride	EPA 624	BMDL	ug/L	2.21	5	02/17/17 14:04	EC	
tetrachloroethene	EPA 624	BMDL	ug/L	2	5	02/17/17 14:04	EC	
trichloroethene	EPA 624	BMDL	ug/L	1.81	5	02/17/17 14:04	EC	
Toluene	EPA 624	BMDL	ug/L	1.72	5	02/17/17 14:04	EC	
vinyl chloride	EPA 624	BMDL	ug/L	1.95	5	02/17/17 14:04	EC	
1,1,2,2-etrachloroethane	EPA 624	BMDL	ug/L	1.76	5	02/17/17 14:04	EC	
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.61	5	02/17/17 14:04	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0217
Date Received: 2/15/2017

Sample Number: 165428-01 Collection Date: 02/13/2017 8:35
Description: grab Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
xylenes, total	EPA 624	BMDL	ug/L	3.83	5	02/17/17 14:04	EC	
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.94	5	02/17/17 14:04	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	03/14/17 2:38	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	03/14/17 2:38	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	02/17/17 14:04	EC	
para-chloro meta-cresol	EPA 625	BMDL	ug/L	6.39	10	03/14/17 2:38	EC	
2-chlorophenol	EPA 625	BMDL	ug/L	5.41	10	03/14/17 2:38	EC	
2,4-dichlorophenol	EPA 625	BMDL	ug/L	6.34	10	03/14/17 2:38	EC	
2,4-dimethylphenol	EPA 625	BMDL	ug/L	6.66	10	03/14/17 2:38	EC	
2-nitrophenol	EPA 625	BMDL	ug/L	6.22	10	03/14/17 2:38	EC	
4-nitrophenol	EPA 625	BMDL	ug/L	21.3	40	03/14/17 2:38	EC	O32
2,4-dinitrophenol	EPA 625	BMDL	ug/L	11	20	03/14/17 2:38	EC	O32
4,6-dinitro-o-cresol	EPA 625	BMDL	ug/L	8.12	10	03/14/17 2:38	EC	
Pentachlorophenol	EPA 625	BMDL	ug/L	8.19	10	03/14/17 2:38	EC	O34
Phenol	EPA 625	BMDL	ug/L	4.61	10	03/14/17 2:38	EC	O32
2,4,6-trichlorophenol	EPA 625	BMDL	ug/L	6.98	10	03/14/17 2:38	EC	
1,2-Diphenylhydrazine	EPA 625	BMDL	ug/L	8.34	10	03/14/17 2:38	EC	
Acenaphthene	EPA 625	BMDL	ug/L	5.7	10	03/14/17 2:38	EC	
Acenaphthylene	EPA 625	BMDL	ug/L	6.12	10	03/14/17 2:38	EC	
Anthracene	EPA 625	BMDL	ug/L	8.88	10	03/14/17 2:38	EC	
Benzidine	EPA 625	BMDL	ug/L	7.82	10	03/14/17 2:38	EC	O32
benzo (a) anthracene	EPA 625	BMDL	ug/L	7.79	10	03/14/17 2:38	EC	
benzo (ghi)perylene	EPA 625	BMDL	ug/L	5.64	10	03/14/17 2:38	EC	O32
Benzo(A)Pyrene	EPA 625	BMDL	ug/L	8.94	10	03/14/17 2:38	EC	O32
benzo(b)fluoranthene	EPA 625	BMDL	ug/L	9.16	10	03/14/17 2:38	EC	O32
benzo(k)fluoranthene	EPA 625	BMDL	ug/L	10.9	20	03/14/17 2:38	EC	O32
Bis (2-chloroethyl) Ether	EPA 625	BMDL	ug/L	5.59	10	03/14/17 2:38	EC	
bis(2-Chloroethoxy)methane	EPA 625	BMDL	ug/L	8.72	10	03/14/17 2:38	EC	
bis(2-chloroisopropyl)ethe	EPA 625	BMDL	ug/L	8.54	10	03/14/17 2:38	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0217
Date Received: 2/15/2017

Sample Number: 165428-01 Collection Date: 02/13/2017 8:35
Description: grab Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
bis(2-Ethylhexyl)phthalate	EPA 625	BMDL	ug/L	9.26	10	03/14/17 2:38	EC	
Butylbenzyl phthalate	EPA 625	BMDL	ug/L	7.84	10	03/14/17 2:38	EC	
4-Bromophenyl-phenyl ether	EPA 625	BMDL	ug/L	9.72	10	03/14/17 2:38	EC	
2-Chloronaphthalene	EPA 625	BMDL	ug/L	8.51	10	03/14/17 2:38	EC	
4-chlorophenyl-phenyl ether	EPA 625	BMDL	ug/L	8.74	10	03/14/17 2:38	EC	
Chrysene	EPA 625	BMDL	ug/L	6.18	10	03/14/17 2:38	EC	
Di-n-butyl phthalate	EPA 625	BMDL	ug/L	9.91	10	03/14/17 2:38	EC	
Di-n-octyl phthalate	EPA 625	BMDL	ug/L	9.91	10	03/14/17 2:38	EC	O32
Dibenzo [a,h] anthracene	EPA 625	BMDL	ug/L	5.36	10	03/14/17 2:38	EC	O32
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	03/14/17 2:38	EC	
3,3-Dichlorobenzidine	EPA 625	BMDL	ug/L	7.41	20	03/14/17 2:38	EC	O32
Diethyl phthalate	EPA 625	BMDL	ug/L	7.8	10	03/14/17 2:38	EC	
Dimethlyl phthalate	EPA 625	BMDL	ug/L	8.83	10	03/14/17 2:38	EC	
Fluoranthene	EPA 625	BMDL	ug/L	7.84	10	03/14/17 2:38	EC	
Fluorene	EPA 625	BMDL	ug/L	8.01	10	03/14/17 2:38	EC	
Hexachlorobenzene	EPA 625	BMDL	ug/L	7.27	10	03/14/17 2:38	EC	
Hexachlorobutadiene	EPA 625	BMDL	ug/L	9.18	10	03/14/17 2:38	EC	
Hexachlorocyclopentadiene	EPA 625	BMDL	ug/L	9.46	10	03/14/17 2:38	EC	O32
Hexachloroethane	EPA 625	BMDL	ug/L	9.62	10	03/14/17 2:38	EC	
Indeno [1,2,3-cd] pyrene	EPA 625	BMDL	ug/L	4.94	10	03/14/17 2:38	EC	O32
Isophorone	EPA 625	BMDL	ug/L	8.7	10	03/14/17 2:38	EC	
Naphthalene	EPA 625	BMDL	ug/L	6.84	10	03/14/17 2:38	EC	
2,6-Dinitrotoluene	EPA 625	BMDL	ug/L	8.54	10	03/14/17 2:38	EC	
Nitrobenzene	EPA 625	BMDL	ug/L	6.92	10	03/14/17 2:38	EC	
N-nitroso-di-methylamine	EPA 625	BMDL	ug/L	4.91	10	03/14/17 2:38	EC	O32,
N-nitroso-di-phenylamine	EPA 625	BMDL	ug/L	9.15	10	03/14/17 2:38	EC	
n-nitrosodi-n-propylamine	EPA 625	BMDL	ug/L	7.28	10	03/14/17 2:38	EC	
Phenanthrene	EPA 625	BMDL	ug/L	8.27	10	03/14/17 2:38	EC	
Pyrene	EPA 625	BMDL	ug/L	7.8	10	03/14/17 2:38	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0217
Date Received: 2/15/2017

Sample Number: 165428-01
Description: grab

Collection Date: 02/13/2017 8:35
Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,2,4-trichlorobenzene	EPA 625	BMDL	ug/L	9.94	10	03/14/17 2:38	EC	
2,4-Dinitrotoluene	EPA 625	BMDL	ug/L	8.1	10	03/14/17 2:38	EC	

Surrogate	Recovery %	Target Range
4-Bromofluorobenzene	90.4	90-110
toluene-d8	97.7	90-110
1,2-Dichloroethane-d4	112	88-119
p-Terphenyl-d14	83.0	18-137
2,4,6-Tribromophenol	24.8	19-124
2-Fluorobiphenyl	71.8	26-115
Nitrobenzene-d5	71.3	15-120
phenol-d5	14.8	18-113
2-Fluorophenol	20.4	10-121

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0217
Date Received: 2/15/2017

Sample Number: 165428-01
Description: grab

Collection Date: 02/13/2017 8:35
Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

BMDL = Below Method Detection Limit

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

For EPA 624: The end CCV standard was prepared incorrectly causing the %RPD to fail for several analytes.

For EPA 625 the tailing factor for Pentachlorophenol did not meet the method requirement of 5.00.

Several EPA 625 compounds did not meet the 0-20% precision requirement between the matrix spike and spike duplicate. All compounds met accuracy requirements.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The BFB check failed for one mass.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O32 = This CCC compound was not within its target range of <20% drift of RF from the compound at initial calibration.

O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.

O41 = For the sample spike and spike duplicate, the specified precision of 0-20% was not met for this compound.

O61 = Only a partial peak detected in standards.

O92 = Acrolein was determined from a sample that was preserved to a pH of less than 2.0.

Erin Consuegra 03/28/2017

Erin Consuegra, QA/QC Manager Date

This person may be contacted for questions at the number listed above.

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

March 09, 2017

Erin Consuegra

,

RE: Project: 69-0217
Pace Project No.: 35297589

Dear Erin Consuegra:
Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Amy Atkins
amy.atkins@pacelabs.com
(813) 881-9401
Project Manager

Enclosures

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Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

CERTIFICATIONS

Project: 69-0217
Pace Project No.: 35297589

Tampa Certification IDs
110 South Bayview Blvd., Tampa, FL 34677
Florida Certification #:E84129
Alabama Certification #: 41560
Georgia Certification #: 949
Georgia Certification #: #949
Maine Certification #: 2015035
New Hampshire Certification #: 2955

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Oldsmar , FL 34677
(813)881-9401

SAMPLE SUMMARY

Project: 69-0217
Pace Project No.: 35297589

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35297589001	**165428-01**	Water	02/13/17 08:35	02/28/17 13:00

REPORT OF LABORATORY ANALYSIS

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(813)881-9401

SAMPLE ANALYTE COUNT

Project: 69-0217
Pace Project No.: 35297589

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35297589001	165428-01	EPA 1631E	AS1	1	PASI-Tp

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ANALYTICAL RESULTS

Project: 69-0217
Pace Project No.: 35297589

Sample: 165428-01 **Lab ID: 35297589001** Collected: 02/13/17 08:35 Received: 02/28/17 13:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E								
Mercury	**2.48**	ng/L	0.50	0.25	1	03/07/17 14:00	03/07/17 17:04	7439-97-6	V

REPORT OF LABORATORY ANALYSIS

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Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA

Project: 69-0217
Pace Project No.: 35297589

QC Batch: 354918 Analysis Method: EPA 1631E
QC Batch Method: EPA 1631E Analysis Description: 1631E Mercury,Low Level
Associated Lab Samples: 35297589001

METHOD BLANK: 1909271 Matrix: Water
Associated Lab Samples: 35297589001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.321 I	0.50	0.25	03/07/17 16:24	

METHOD BLANK: 1909272 Matrix: Water
Associated Lab Samples: 35297589001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	03/07/17 16:29	

METHOD BLANK: 1909273 Matrix: Water
Associated Lab Samples: 35297589001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.275 I	0.50	0.25	03/07/17 16:34	

LABORATORY CONTROL SAMPLE: 1909274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ng/L	20	21.6	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1909275 1909276

Parameter	Units	35297588001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ng/L	18.9	20	20	40.8	38.8	110	100	71-125	5	24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(813)881-9401

QUALIFIERS

Project: 69-0217
Pace Project No.: 35297589

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-Tp	Pace Analytical Services - Tampa

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.

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110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 69-0217
Pace Project No.: 35297589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35297589001	**165428-01**	EPA 1631E	354918	EPA 1631E	354928

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CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

Standard
Expedite (Addition Fees Apply)
Date Required

Client: Sylacauga WWTP
Project: 69-0217

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #

Sample No.	165428-01	grab							
Location	eff PP								
Collector									
Date/Time Sampled	2/13/2017 8:35:00 AM								

WO# : 35297589

35297589

Sample No.	165428-02	comp							
Location	eff PP								
Collector									
Date/Time Sampled	2/15/2017 7:25:00 AM								

Sample No.	165428-03	grab							
Location	trip blank-voc								
Collector									
Date/Time Sampled	1/12/2017								

Sample	Preservation	Analysis	Preservation CK
~~-01b~~	~~H2SO4~~	~~O&G~~	
~~-01d~~	~~naoh/aa~~	~~CN~~	
~~-01f~~	~~NA2S2O3~~	~~TTO-624 and 625~~	
~~-02b~~	~~H2SO4~~	~~TKN~~	
~~-02d~~	~~H2SO4~~	~~T-Phosphorus~~	
~~-02f~~	~~HNO3~~	~~ICP Metals~~	
~~-03a~~	~~NA2S2O3~~	~~WW VOC - 624~~	

Sample	Preservation	Analysis	Preservation CK
-01c	None	subcontract Hg	
~~-01e~~	~~H2SO4~~	~~Phenol~~	
~~-02a~~	~~H2SO4~~	~~AMMONIA~~	
~~-02c~~	~~H2SO4~~	~~NO2-/NO3~~	
~~-02e~~	~~None~~	~~TDS~~	
-02g	None	Hardness	

T: 24.3°

Relinquished By: [signature] Date/Time: 02/17 1300 Received By: [signature] Pace via UPS Date/Time: 02/28/17 1300

Relinquished By: Date/Time: Received By: Date/Time:

Relinquished By: Date/Time:

Received at Lab By:	Date/Time:	Method of Transfer:	Arrival Temp (C):

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: February 6, 2017
	Document No.: F-FL-C-007 rev. 11	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # WO# : 35297589

Project Manager: PM: ADA Due Date: 03/14/17

Client: CLIENT: 37-ENVRES

Date and Initials of person:
Examining contents: GVD
Label: GVD
Deliver: GVD
pH: ✓

Thermometer Used: T-203 Date: 02/28/2017 Time: 12:16 Initials: AFW

Cooler #1 Temp.°C	24.3 (Visual)	0.0 (Correction Factor)	24.3 (Actual) Cooler 1	☐	Samples on ice, cooling process has begun
Cooler #2 Temp.°C	(Visual)	(Correction Factor)	(Actual) Cooler 2	☑	Samples on ice, cooling process has begun
Cooler #3 Temp.°C	(Visual)	(Correction Factor)	(Actual) Cooler 3	☐	Samples on ice, cooling process has begun
Cooler #4 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐	Samples on ice, cooling process has begun
Cooler #5 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐	Samples on ice, cooling process has begun
Cooler #6 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐	Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☑ Ground ☐ Other

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☑ Unknown

Tracking # 12 1E2 3R4 05 5363 5335

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No Ice: Wet Blue (None)

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty:

		Comments:
Chain of Custody Present	☑Yes ☐No ☐N/A	
Chain of Custody Filled Out	☑Yes ☐No ☐N/A	
Relinquished Signature & Sampler Name COC	☐Yes ☑No ☐N/A	
Samples Arrived within Hold Time	☑Yes ☐No ☐N/A	
Rush TAT requested on COC	☐Yes ☑No ☐N/A	
Sufficient Volume	☑Yes ☐No ☐N/A	
Correct Containers Used	☑Yes ☐No ☐N/A	
Containers Intact	☑Yes ☐No ☐N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑Yes ☐No ☐N/A	DATE Sampled is blank to read
All containers needing acid/base preservation have been checked.	☐Yes ☐No ☑N/A	Preservation Information:
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	☐Yes ☐No ☑N/A	Preservative: Lot #/Trace #: Date: Time: Initials:
Headspace in VOA Vials? (>6mm):	☐Yes ☐No ☑N/A	
Trip Blank Present:	☐Yes ☐No ☑N/A	

Client Notification/ Resolution:

Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments): Sample 16542Y-01C date had typo

Project Manager Review: Date:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-0217

	Sample No.	Location	Collector	Date/Time Sampled	G or C	Composite Sample(s): Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Analytical Measurements Taken By ERA: Test	Analyst	Date/Time	Meter #	Probe #
	165428-01	eff PP	K. Remson	2-13-17 / 0835	grab								
	165428-02	eff PP	K. Remson	2-15-17 / 0835	comp	250 ml / 50 min	2-14-17 / 0825	2-15-17 / 0725					
	165428-03	trip blank voc	~~K. Remson~~ KR BRN	~~2-13-17~~ 2/2/17	grab								

Sample	Preservation	Analysis	Preservation CK
-01b	H2SO4	O&G	pH < 2.0
-01d	naoh/aa	CN-	pH ≥ 12.0
-01f	NA2S2O3	TTO-624 and 625	pH < 2.0
-02b	H2SO4	TKN	pH < 2.0
-02d	H2SO4	T-Phosphorus	
-02f	HNO3	ICP Metals	WW 2/15/17 17:30
-03a	NA2S2O3	WW VOC - 624	WW

Sample	Preservation	Analysis	Preservation CK
-01c	None	subcontract	WW
-01e	H2SO4	Phenol	pH ≤ 2.0
-02a	H2SO4	AMMONIA	
-02c	H2SO4	NO2-/NO3	
-02e	None	TDS	WW
-02g	None	Hardness	WW

Relinquished By: Kelly A. Remson Date/Time: 2-15-17 / 0850 Received By: WW Date/Time: 2/15/17 11:15
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

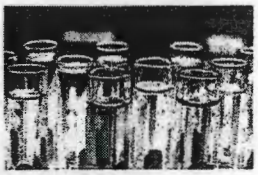
Received at Lab By: WW Date/Time: 2/15/17 ~~17:25~~ 11:25 Method of Transfer: ERA Arrival Temp (C): 2.8

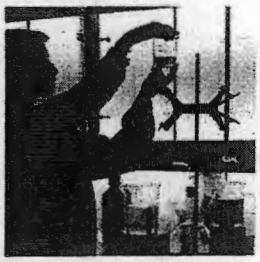
END OF REPORT

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

2975 BROWN COURT
AUBURN, AL 36830
334-502-3444
(FAX) 334-502-8888

21 Years in Business, and counting
http://www.eralab.com





Laboratory Report

Report # 69-1116

Prepared For Sylacauga
P.O. Box 207
Sylacauga, AL 35150

Attention: Kellye Remson

Number of Pages in Report: 23

We appreciate the opportunity to provide testing results for you. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data, please do not hesitate to contact the Lab Manager or the Lab Director at the number listed above.

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ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report No 69-1016 Date Received: 10/24/2016

Location eff PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
163061-01									
Cyanide	<0.004	mg/L		0.004	0.01	EPA 335.4(1993)	10/24/16 08:05	11/07/16 12:08	CR
Oil & Grease	<1.00	mg/L		1	5	EPA 1664A	10/24/16 08:05	10/28/16 14:20	HK
Phenol	0.016	mg/L	N10	0.015	0.05	EPA 420.1(1978)	10/24/16 08:05	11/04/16 09:00	BEH
163061-02									
Ammonia	<0.100	mg N/L		0.1	0.2	EPA 350.1(1993)	10/24/16 06:00	11/01/16 12:26	CR
Antimony	<20.0	ug/L		20	50	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Arsenic	<22.0	ug/L		22	50	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Beryllium	<4.0	ug/L		4	5	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Cadmium	<4.0	ug/L		4	10	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Chromium	<7.0	ug/L		7	25	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Copper	12.4	ug/L		6	10	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Hardness	179	mg/L CaCO3		4.5	4.5	SM 2340C-1997	10/24/16 06:00	11/01/16 14:00	AR
Lead	<26.0	ug/L		26	50	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Nickel	<8.0	ug/L		8	10	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
NO2-/NO3	18.9	mg N/L		0.022	0.1	EPA 353.2(1993)	10/24/16 06:00	11/03/16 12:26	CR
Selenium	<26.0	ug/L		26	50	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
Silver	<8.0	ug/L		8	10	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
TDS	409	mg/L(Dry)		2	2	SM 2540C-1997	10/24/16 06:00	10/24/16 13:15	BEH
Thallium	<34.0	ug/L		34	50	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR
TKN	0.595	mg N/L	N10	0.25	1.25	EPA 351.2(1993)	10/24/16 06:00	11/04/16 10:14	CR
T-Phosphorous	2.89	mg P/L		0.05	0.5	EPA 365.4(1974)	10/24/16 06:00	11/04/16 10:14	CR
Zinc	<10.0	ug/L		10	25	EPA 200.7(1994)	10/24/16 06:00	11/04/16 12:37	CR

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Erin Consuegra 11/15/2016

Erin Consuegra, QA/QC Manager Date

This person may be contacted for questions at the number listed above.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-CI, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

BMDL = Below Method Detection Limit

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

Several EPA 625 compounds did not meet the 0-20% precision requirement between the matrix spike and spike duplicate. All compounds met accuracy requirements.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The BFB check failed for one mass.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O33 = The second source standard compound met accuracy requirements for this run, but the precision for this compound was not 0-20% when compared with the calibration standard.

O37 = For the matrix spike and spike duplicate, this compound did not meet the specified precision requirement of 0-20%.

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-01
Description: grab

Collection Date: 10/24/2016 8:05
Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Acrolein	EPA 624	BMDL	ug/L	30.8	50	11/03/16 12:02	EC	O33,
Acrylonitrile	EPA 624	BMDL	ug/L	17	50	11/03/16 12:02	EC	
Benzene	EPA 624	BMDL	ug/L	1.69	5	11/03/16 12:02	EC	
bromoform	EPA 624	BMDL	ug/L	2.35	5	11/03/16 12:02	EC	
bromomethane	EPA 624	BMDL	ug/L	2.34	5	11/03/16 12:02	EC	
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.82	5	11/03/16 12:02	EC	
chlorobenzene	EPA 624	BMDL	ug/L	3.82	5	11/03/16 12:02	EC	
chlorodibromomethane	EPA 624	5.65	ug/L	2	5	11/03/16 12:02	EC	
chloroethane	EPA 624	BMDL	ug/L	2.28	5	11/03/16 12:02	EC	
chloroform	EPA 624	24.3	ug/L	1.84	5	11/03/16 12:02	EC	O37
chloromethane	EPA 624	BMDL	ug/L	2.7	5	11/03/16 12:02	EC	O37
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	5.09	10	11/03/16 12:02	EC	O37
dichlorobromomethane	EPA 624	12.6	ug/L	1.79	5	11/03/16 12:02	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	11/03/16 12:02	EC	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.98	5	11/03/16 12:02	EC	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.55	5	11/03/16 12:02	EC	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.84	5	11/03/16 12:02	EC	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.94	5	11/03/16 12:02	EC	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.4	5	11/03/16 12:02	EC	
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.53	5	11/03/16 12:02	EC	
Ethylbenzene	EPA 624	BMDL	ug/L	1.92	5	11/03/16 12:02	EC	
methylene chloride	EPA 624	BMDL	ug/L	2.21	5	11/03/16 12:02	EC	
tetrachloroethene	EPA 624	BMDL	ug/L	2	5	11/03/16 12:02	EC	
trichloroethene	EPA 624	BMDL	ug/L	1.81	5	11/03/16 12:02	EC	O37
Toluene	EPA 624	BMDL	ug/L	1.72	5	11/03/16 12:02	EC	
vinyl chloride	EPA 624	BMDL	ug/L	1.95	5	11/03/16 12:02	EC	O37
1,1,2,2-tetrachloroethane	EPA 624	BMDL	ug/L	1.76	5	11/03/16 12:02	EC	
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.61	5	11/03/16 12:02	EC	
xylenes, total	EPA 624	BMDL	ug/L	3.83	5	11/03/16 12:02	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-01 Collection Date: 10/24/2016 8:05
Description: grab Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.94	5	11/03/16 12:02	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	11/03/16 12:02	EC	
1,2-Dichlorobenzene	EPA 625	BMDL	ug/L	9.87	10	11/04/16 18:02	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	11/04/16 18:02	EC	
para-chloro meta-cresol	EPA 625	BMDL	ug/L	6.39	10	11/04/16 18:02	EC	
2-chlorophenol	EPA 625	BMDL	ug/L	5.41	10	11/04/16 18:02	EC	
2,4-dichlorophenol	EPA 625	BMDL	ug/L	6.34	10	11/04/16 18:02	EC	
2,4-dimethylphenol	EPA 625	BMDL	ug/L	6.66	10	11/04/16 18:02	EC	
2-nitrophenol	EPA 625	BMDL	ug/L	6.22	10	11/04/16 18:02	EC	
4-nitrophenol	EPA 625	BMDL	ug/L	21.3	40	11/04/16 18:02	EC	
2,4-dinitrophenol	EPA 625	BMDL	ug/L	11	20	11/04/16 18:02	EC	
4,6-dinitro-o-cresol	EPA 625	BMDL	ug/L	8.12	10	11/04/16 18:02	EC	
Pentachlorophenol	EPA 625	BMDL	ug/L	8.19	10	11/04/16 18:02	EC	
Phenol	EPA 625	BMDL	ug/L	4.61	10	11/04/16 18:02	EC	
2,4,6-trichlorophenol	EPA 625	BMDL	ug/L	6.98	10	11/04/16 18:02	EC	
1,2-Diphenylhydrazine	EPA 625	BMDL	ug/L	8.34	10	11/04/16 18:02	EC	
Acenaphthene	EPA 625	BMDL	ug/L	5.7	10	11/04/16 18:02	EC	
Acenaphthylene	EPA 625	BMDL	ug/L	6.12	10	11/04/16 18:02	EC	
Anthracene	EPA 625	BMDL	ug/L	8.88	10	11/04/16 18:02	EC	
Benzidine	EPA 625	BMDL	ug/L	7.82	10	11/04/16 18:02	EC	
benzo (a) anthracene	EPA 625	BMDL	ug/L	7.79	10	11/04/16 18:02	EC	
benzo (ghi)perylene	EPA 625	BMDL	ug/L	5.64	10	11/04/16 18:02	EC	
Benzo(A)Pyrene	EPA 625	BMDL	ug/L	8.94	10	11/04/16 18:02	EC	
benzo(b)fluoranthene	EPA 625	BMDL	ug/L	9.16	10	11/04/16 18:02	EC	
benzo(k)fluoranthene	EPA 625	BMDL	ug/L	10.9	20	11/04/16 18:02	EC	
Bis (2-chloroethyl) Ether	EPA 625	BMDL	ug/L	5.59	10	11/04/16 18:02	EC	
bis(2-Chloroethoxy)methane	EPA 625	BMDL	ug/L	8.72	10	11/04/16 18:02	EC	
bis(2-chloroisopropyl)ethe	EPA 625	BMDL	ug/L	8.54	10	11/04/16 18:02	EC	
bis(2-Ethylhexyl)phthalate	EPA 625	BMDL	ug/L	9.26	10	11/04/16 18:02	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-01
Description: grab

Collection Date: 10/24/2016 8:05
Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Butylbenzyl phthalate	EPA 625	BMDL	ug/L	7.84	10	11/04/16 18:02	EC	
4-Bromophenyl-phenyl ether	EPA 625	BMDL	ug/L	9.72	10	11/04/16 18:02	EC	
2-Chloronaphthalene	EPA 625	BMDL	ug/L	8.51	10	11/04/16 18:02	EC	
4-chlorophenyl-phenyl ether	EPA 625	BMDL	ug/L	8.74	10	11/04/16 18:02	EC	
Chrysene	EPA 625	BMDL	ug/L	6.18	10	11/04/16 18:02	EC	
Di-n-butyl phthalate	EPA 625	BMDL	ug/L	9.91	10	11/04/16 18:02	EC	
Di-n-octyl phthalate	EPA 625	BMDL	ug/L	9.91	10	11/04/16 18:02	EC	
Dibenzo [a,h] anthracene	EPA 625	BMDL	ug/L	5.36	10	11/04/16 18:02	EC	
1,2-Dichlorobenzene	EPA 625	BMDL	ug/L	9.87	10	11/04/16 18:02	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	11/04/16 18:02	EC	
3,3-Dichlorobenzidine	EPA 625	BMDL	ug/L	7.41	20	11/04/16 18:02	EC	
Diethyl phthalate	EPA 625	BMDL	ug/L	7.8	10	11/04/16 18:02	EC	
Dimethlyl phthalate	EPA 625	BMDL	ug/L	8.83	10	11/04/16 18:02	EC	
Fluoranthene	EPA 625	BMDL	ug/L	7.84	10	11/04/16 18:02	EC	
Fluorene	EPA 625	BMDL	ug/L	8.01	10	11/04/16 18:02	EC	
Hexachlorobenzene	EPA 625	BMDL	ug/L	7.27	10	11/04/16 18:02	EC	
Hexachlorobutadiene	EPA 625	BMDL	ug/L	9.18	10	11/04/16 18:02	EC	
Hexachlorocyclopentadiene	EPA 625	BMDL	ug/L	9.46	20	11/04/16 18:02	EC	
Hexachloroethane	EPA 625	BMDL	ug/L	9.62	10	11/04/16 18:02	EC	
Indeno [1,2,3-cd] pyrene	EPA 625	BMDL	ug/L	4.94	10	11/04/16 18:02	EC	
Isophorone	EPA 625	BMDL	ug/L	8.7	10	11/04/16 18:02	EC	
Naphthalene	EPA 625	BMDL	ug/L	6.84	10	11/04/16 18:02	EC	
2,6-Dinitrotoluene	EPA 625	BMDL	ug/L	8.54	10	11/04/16 18:02	EC	
Nitrobenzene	EPA 625	BMDL	ug/L	6.92	10	11/04/16 18:02	EC	
N-nitroso-di-methylamine	EPA 625	BMDL	ug/L	4.91	10	11/04/16 18:02	EC	
N-nitroso-di-phenylamine	EPA 625	BMDL	ug/L	9.15	10	11/04/16 18:02	EC	
n-nitrosodi-n-propylamine	EPA 625	BMDL	ug/L	7.28	10	11/04/16 18:02	EC	
Phenanthrene	EPA 625	BMDL	ug/L	8.27	10	11/04/16 18:02	EC	
Pyrene	EPA 625	BMDL	ug/L	7.8	10	11/04/16 18:02	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-01 Collection Date: 10/24/2016 8:05
Description: grab Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,2,4-trichlorobenzene	EPA 625	BMDL	ug/L	9.94	10	11/04/16 18:02	EC	
2,4-Dinitrotoluene	EPA 625	BMDL	ug/L	8.1	10	11/04/16 18:02	EC	

Surrogate	Recovery %	Target Range
4-Bromofluorobenzene	99.1	90-110
toluene-d8	95.4	90-110
1,2-Dichloroethane-d4	116	83-118
p-Terphenyl-d14	55.7	18-137
2,4,6-Tribromophenol	52.1	19-124
2-Fluorobiphenyl	44.3	26-115
Nitrobenzene-d5	48.8	15-120
phenol-d5	19.5	18-113
2-Fluorophenol	29.2	10-121

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-01
Description: grab

Collection Date: 10/24/2016 8:05
Location: eff PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

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EPA-821-R-98-002, February 1999.

Several EPA 625 compounds did not meet the 0-20% precision requirement between the matrix spike and spike duplicate. All compounds met accuracy requirements.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The BFB check failed for one mass.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O33 = The second source standard compound met accuracy requirements for this run, but the precision for this compound was not 0-20% when compared with the calibration standard.

O37 = For the matrix spike and spike duplicate, this compound did not meet the specified precision requirement of 0-20%.

Erin Consuegra — 11/15/2016

Erin Consuegra, QA/QC Manager — Date

This person may be contacted for questions at the number listed above.

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PQL: Practical Quantitation Limit

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-03 Collection Date: 10/21/2016 0:00
Description: grab Location: trip blank voc

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
WW VOC - 624								
Acrolein	EPA 624	BMDL	ug/L	30.8	50	11/03/16 20:06	EC	O33,
Acrylonitrile	EPA 624	BMDL	ug/L	17	50	11/03/16 20:06	EC	
Benzene	EPA 624	BMDL	ug/L	1.69	5	11/03/16 20:06	EC	
bromoform	EPA 624	BMDL	ug/L	2.35	5	11/03/16 20:06	EC	
bromomethane	EPA 624	BMDL	ug/L	2.34	5	11/03/16 20:06	EC	
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.82	5	11/03/16 20:06	EC	
chlorobenzene	EPA 624	BMDL	ug/L	3.82	5	11/03/16 20:06	EC	
chlorodibromomethane	EPA 624	BMDL	ug/L	2	5	11/03/16 20:06	EC	
chloroethane	EPA 624	BMDL	ug/L	2.28	5	11/03/16 20:06	EC	
chloroform	EPA 624	BMDL	ug/L	1.84	5	11/03/16 20:06	EC	O37
chloromethane	EPA 624	BMDL	ug/L	2.7	5	11/03/16 20:06	EC	O37
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	5.09	10	11/03/16 20:06	EC	O37
dichlorobromomethane	EPA 624	BMDL	ug/L	1.79	5	11/03/16 20:06	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	11/03/16 20:06	EC	
1,3-Dichlorobenzene	EPA 624	BMDL	ug/L	2.43	5	11/03/16 20:06	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	11/03/16 20:06	EC	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.98	5	11/03/16 20:06	EC	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.55	5	11/03/16 20:06	EC	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.84	5	11/03/16 20:06	EC	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.94	5	11/03/16 20:06	EC	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.4	5	11/03/16 20:06	EC	
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.53	5	11/03/16 20:06	EC	
Ethylbenzene	EPA 624	BMDL	ug/L	1.92	5	11/03/16 20:06	EC	
methylene chloride	EPA 624	BMDL	ug/L	2.21	5	11/03/16 20:06	EC	
tetrachloroethene	EPA 624	BMDL	ug/L	2	5	11/03/16 20:06	EC	
trichloroethene	EPA 624	BMDL	ug/L	1.81	5	11/03/16 20:06	EC	O37
Toluene	EPA 624	BMDL	ug/L	1.72	5	11/03/16 20:06	EC	
vinyl chloride	EPA 624	BMDL	ug/L	1.95	5	11/03/16 20:06	EC	O37
1,1,2,2-tetrachloroethane	EPA 624	BMDL	ug/L	1.76	5	11/03/16 20:06	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-03
Description: grab

Collection Date: 10/21/2016 0:00
Location: trip blank voc

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
WW VOC - 624								
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.61	5	11/03/16 20:06	EC	
xylenes, total	EPA 624	BMDL	ug/L	3.83	5	11/03/16 20:06	EC	
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.94	5	11/03/16 20:06	EC	

Surrogate	Recovery %	Target Range
4-Bromofluorobenzene	99.0	90-110
toluene-d8	91.3	90-110
1,2-Dichloroethane-d4	118	83-118

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-1016
Date Received: 10/24/2016

Sample Number: 163061-03
Description: grab

Collection Date: 10/21/2016 0:00
Location: trip blank voc

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

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O37 = For the matrix spike and spike duplicate, this compound did not meet the specified precision requirement of 0-20%.

Erin Consuegra

Erin Consuegra, QA/QC Manager

11/15/2016
Date

This person may be contacted for questions at the number listed above.

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

ANALYTICAL RESULTS

Project: 69-1016
Pace Project No.: 35274522

Sample: 163061-01 eff PP **Lab ID: 35274522001** Collected: 10/24/16 08:05 Received: 11/02/16 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E								
Mercury	**1.12**	ng/L	0.40	0.20	1	11/17/16 15:00	11/18/16 15:41	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA

Project: 69-1016
Pace Project No.: 35274522

QC Batch: 333150
QC Batch Method: EPA 1631E
Associated Lab Samples: 35274522001

Analysis Method: EPA 1631E
Analysis Description: 1631E Mercury,Low Level

METHOD BLANK: 1783375 Matrix: Water
Associated Lab Samples: 35274522001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.20 U	0.40	0.20	11/18/16 12:51	

METHOD BLANK: 1783376 Matrix: Water
Associated Lab Samples: 35274522001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.20 U	0.40	0.20	11/18/16 12:56	

METHOD BLANK: 1783377 Matrix: Water
Associated Lab Samples: 35274522001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.20 U	0.40	0.20	11/18/16 13:01	

LABORATORY CONTROL SAMPLE: 1783378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ng/L	20	21.3	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1783379 1783380

Parameter	Units	35273940001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ng/L	0.473	20	20	18.9	19.7	92	96	71-125	4	24	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1783381 1783382

Parameter	Units	35274011002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ng/L	0.20 U	20	20	20.1	21.2	100	105	71-125	5	24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALIFIERS

Project: 69-1016
Pace Project No.: 35274522

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-Tp Pace Analytical Services - Tampa

ANALYTE QUALIFIERS

U Compound was analyzed for but not detected.

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Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 69-1016
Pace Project No.: 35274522

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35274522001	**163061-01 eff PP**	EPA 1631E	333150	EPA 1631E	333861

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CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required

Client: Sylacauga WWTP
Project: 69-1016

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
grab								
comp								
grab								

Sample No.	163061-01
Location	eff PP
Collector	
Date/Time Sampled	10/24/2016 8:05:00 AM

Sample No.	163061-02
Location	eff PP
Collector	
Date/Time Sampled	10/24/2016 6:00:00 AM

Sample No.	163061-03
Location	trip blank voc
Collector	
Date/Time Sampled	10/21/2016

WO# : 35274522

35274522

Sample	Preservation	Analysis	Preservation CK
~~-01b~~	~~H2SO4~~	~~O&G~~	
~~-01d~~	~~naoh/aa~~	~~CN-~~	
~~-01f~~	~~NA2S2O3~~	~~TTO-624 and 625~~	
~~-02b~~	~~H2SO4~~	~~TKN~~	
~~-02d~~	~~H2SO4~~	~~T-Phosphorus~~	
~~-02f~~	~~HNO3~~	~~ICP Metals~~	
~~-03a~~	~~NA2S2O3~~	~~WW VOC - 624~~	

Sample	Preservation	Analysis	Preservation CK
-01c	None	subcontract	
~~-01e~~	~~H2SO4~~	~~Phenol~~	
~~-02a~~	~~H2SO4~~	~~AMMONIA~~	
~~-02c~~	~~H2SO4~~	~~NO2-/NO3~~	
~~-02e~~	~~None~~	~~TDS~~	
-02g	None	~~Hardness~~	

Relinquished By: [signature] Date/Time: 11/1/1430 Received By: UPS Date/Time:

Relinquished By: UPS Date/Time: 11/2/16 1130 Received By: Chelsea Pace Date/Time: 11/2/16 1130

Relinquished By: Date/Time:

Received at Lab By: Date/Time: Method of Transfer: Arrival Temp (C): COC Seal Intact: ☐

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: August 10, 2016
	Document No.: F-FL-C-007 rev. 10	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # **WO# : 35274522**

Project Manager: **PM: KN1** **Due Date: 11/16/16**

Client: **CLIENT: 37-ENVRES**

Date and Initials of person:
Examining contents: LOM
Label: 11-2-16 LOM
Deliver: LOM
pH: N/A

Thermometer Used: TPA 68 Date: 11-2-16 Time: 1130 Initials: LOM

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

Cooler #1 Temp.°C	23.9 (Visual)	-.1 (Correction Factor)	23.8 (Actual)	☐ Samples on ice, cooling process has begun
Cooler #2 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #3 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #4 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☑ Ground ☐ Other _____

Billing: ☐ Recipient ☑ Sender ☐ Third Party ☐ Unknown

Tracking # 1Z 1E8 3R4 03 5457 2655

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals intact:** ☐ Yes ☐ No **Ice:** Wet Blue (None)

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

		Comments:
Chain of Custody Present	☑ Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☑ Yes ☐ No ☐ N/A	
Relinquished Signature & Sampler Name COC	☑ Yes ☐ No ☐ N/A	
Samples Arrived within Hold Time	☑ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☑ No ☐ N/A	
Sufficient Volume	☑ Yes ☐ No ☐ N/A	
Correct Containers Used	☑ Yes ☐ No ☐ N/A	
Containers Intact	☑ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑ Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes ☐ No ☑ N/A	Preservation Information: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	☐ Yes ☐ No ☑ N/A	
Headspace in VOA Vials? (>6mm):	☐ Yes ☐ No ☑ N/A	
Trip Blank Present:	☐ Yes ☐ No ☑ N/A	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____

Project Manager Review: _____ Date: _____

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

CERTIFICATIONS

Project: 69-1016
Pace Project No.: 35274522

Tampa Certification IDs
110 South Bayview Blvd., Tampa, FL 34677
Florida Certification #:E84129
Alabama Certification #: 41560
Georgia Certification #: 949
Georgia Certification #: #949
Maine Certification #: 2015035
New Hampshire Certification #: 2955

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CHAIN OF CUSTODY

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Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1016

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
grab								
comp	250 ml / hr	10-23-16 / 0700	10-24-16 / 0600					
grab								

	Sample No.	Location	Collector	Date/Time Sampled
grab	163061-01	eff PP	K. Remson	10-24-16 / 0805
comp	163061-02	eff PP	K. Remson	10-24-16 / 0815
grab	163061-03	trip blank voc		10/21/16

Sample	Preservation	Analysis	Preservation CK
-01b	H2SO4	O&G	pH ≤ 2.0
-01d	naoh/aa	CN-	pH ≥ 12.0
-01f	NA2S2O3	TTO-624 and 625	BG
-02b	H2SO4	TKN	pH ≤ 2.0
-02d	H2SO4	T-Phosphorus	pH ≤ 2.0
-02f	HNO3	ICP Metals	HNO_3 added to pH ≤ 2.0
-03a	NA2S2O3	WW VOC - 624	BG

Sample	Preservation	Analysis	Preservation CK
-01c	None	subcontract	BG
-01e	H2SO4	Phenol	pH ≤ 2.0
-02a	H2SO4	AMMONIA	pH ≤ 2.0
-02c	H2SO4	NO2-/NO3	pH ≤ 2.0
-02e	None	TDS	BG
-02g	None	Hardness	J

Relinquished By: Kelly A. Remson Date/Time: 10-24-16/0820 Received By: BG Date/Time: 10-24-16 1040

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 10-24-16 1330 Method of Transfer: ERA Arrival Temp (C): 3.1 COC Seal Intact: ☐

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

ACCREDITED IN ACCORDANCE WITH

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

December 14, 2016
Work Order: 1615014

Laboratory Report

Project Name **Sylacauga WWTP**

Sample Description	**163066-01**
Matrix	**Sludge**
SAL Sample Number	**1615014-01**
Date/Time Collected	**10/24/16 08:40**
Collected by	**Client**
Date/Time Received	**10/26/16 12:15**

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Pace Analytical Services, Inc. - Ormond Beach Lab								
EPA 8081								
Chlordane (Technical)	mg/L	0.00049 U,U	EPA 8081	0.00049	0.00017	11/07/16 15:15	11/08/16 11:24	1
Endrin	mg/L	0.0000097 U,U	EPA 8081	0.0000097	0.000004	11/07/16 15:15	11/08/16 11:24	1
gamma-BHC (Lindane)	mg/L	0.0000097 U,U	EPA 8081	0.0000097	0.000002	11/07/16 15:15	11/08/16 11:24	1
Heptachlor	mg/L	0.0000097 U,U	EPA 8081	0.0000097	0.000006	11/07/16 15:15	11/08/16 11:24	1
Heptachlor epoxide	mg/L	0.0000097 U,U	EPA 8081	0.0000097	0.000005	11/07/16 15:15	11/08/16 11:24	1
Methoxychlor	mg/L	0.0000097 U,U	EPA 8081	0.0000097	0.000009	11/07/16 15:15	11/08/16 11:24	1
Toxaphene	mg/L	0.00049 U,U	EPA 8081	0.00049	0.00024	11/07/16 15:15	11/08/16 11:24	1
Surrogate for EPA 8081	*Decachlorobiphenyl (S)*		*90 %*	*Limits*	*10-132*			
Surrogate for EPA 8081	*Tetrachloro-m-xylene (S)*		*81 %*	*Limits*	*27-124*			
EPA 8151								
2,4,5-TP (Silvex)	mg/L	0.00019 U,U	EPA 8151	0.00019	0.000049	11/08/16 10:00	11/10/16 04:09	1
2,4-D	mg/L	0.00094 U,U	EPA 8151	0.00094	0.00022	11/08/16 10:00	11/10/16 04:09	1
Surrogate for EPA 8151	*2,4-DCAA (S)*		*79 %*	*Limits*	*39-139*			

Alabama Certification Number: 41560
NELAP Accredited

Francis I. Daniels, Laboratory Director
Leslie C. Boardman, Q.A. Manager

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

ACCREDITED IN ACCORDANCE WITH

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

December 14, 2016
Work Order: 1615014

* Qualifiers, Notes and Definitions

Results followed by a "U" indicate that the sample was analyzed but the compound was not detected. Results followed by "I" indicate that the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

A statement of estimated uncertainty of test results is available upon request.

For methods marked with **, all QC criteria have been met for this method which is equivalent to a SAL certified method.

Test results in this report meet all the requirements of the NELAC standards. Any applicable qualifiers are shown below.

U Indicates the compound was analyzed for, but not detected.

Questions regarding this report should be directed to :

Kathryn Nordmark
Telephone (813) 855-1844 FAX (813) 855-2218
Kathryn@southernanalyticallabs.com

1615014

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1016

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #

Sample No.	163066-01
Location	sludge pest &herb
Collector	
Date/Time Sampled	10/24/2016 8:40:00 AM

grab

Sample	Preservation	Analysis		Preservation CK
-01a	None	subcontract	pesticids	_____

Sample	Preservation	Analysis		Preservation CK
-01b	None	subcontract	herbicides	_____

Relinquished By: _____ Date/Time: 102516 1215 Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 10-26-16 1215 Method of Transfer: _____ Arrival Temp (C): _____ COC Seal Intact: ☐

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69 -100

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #

Sample No.	**163066-01**	grab	
Location	sludge pest &herb		
Collector	K. Benson		
Date/Time Sampled	10-24-16 / 0840		

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	subcontract	BG	**-01b**	None	subcontract	BG

Relinquished By: Kellye A. Benson Date/Time: 10-24-16 / 0850 Received By: BG Date/Time: 10-24-16 1040
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 10-24-16 1330 Method of Transfer: ERA Arrival Temp (C): 3.1 COC Seal Intact: ☐

END OF REPORT

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0715
Date Received: 7/15/2015

Sample Number: 148985-01
Description: grab

Collection Date: 07/15/2015 7:55
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Acrolein	EPA 624	BMDL	ug/L	22	50	07/21/15 15:21	EC	O4,O
Acrylonitrile	EPA 624	BMDL	ug/L	17.2	50	07/21/15 15:21	EC	
Benzene	EPA 624	BMDL	ug/L	1.46	5	07/21/15 15:21	EC	
bromoform	EPA 624	BMDL	ug/L	2.39	5	07/21/15 15:21	EC	
bromomethane	EPA 624	BMDL	ug/L	4.85	5	07/21/15 15:21	EC	O41
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.95	5	07/21/15 15:21	EC	
chlorobenzene	EPA 624	BMDL	ug/L	1.4	5	07/21/15 15:21	EC	
chlorodibromomethane	EPA 624	3.29	ug/L	1.9	5	07/21/15 15:21	EC	
chloroethane	EPA 624	BMDL	ug/L	1.44	5	07/21/15 15:21	EC	
chloroform	EPA 624	19.7	ug/L	1.34	5	07/21/15 15:21	EC	
chloromethane	EPA 624	BMDL	ug/L	2.72	5	07/21/15 15:21	EC	
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	3	10	07/21/15 15:21	EC	
dichlorobromomethane	EPA 624	8.87	ug/L	1.81	5	07/21/15 15:21	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	1.6	5	07/21/15 15:21	EC	
1,3-Dichlorobenzene	EPA 624	BMDL	ug/L	1.41	5	07/21/15 15:21	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	9.67	10	07/21/15 15:21	EC	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.61	5	07/21/15 15:21	EC	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.99	5	07/21/15 15:21	EC	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.42	5	07/21/15 15:21	EC	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.56	5	07/21/15 15:21	EC	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.94	5	07/21/15 15:21	EC	O4
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.29	5	07/21/15 15:21	EC	
Ethylbenzene	EPA 624	BMDL	ug/L	1.43	5	07/21/15 15:21	EC	
methylene chloride	EPA 624	BMDL	ug/L	1.51	5	07/21/15 15:21	EC	
tetrachloroethene	EPA 624	BMDL	ug/L	1.79	5	07/21/15 15:21	EC	
trichloroethene	EPA 624	BMDL	ug/L	1.53	5	07/21/15 15:21	EC	
Toluene	EPA 624	BMDL	ug/L	1.58	5	07/21/15 15:21	EC	
vinyl chloride	EPA 624	BMDL	ug/L	1.61	5	07/21/15 15:21	EC	
1,1,2,2-tetrachloroethane	EPA 624	BMDL	ug/L	1.63	5	07/21/15 15:21	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0715
Date Received: 7/15/2015

Sample Number: 148985-01
Description: grab

Collection Date: 07/15/2015 7:55
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.87	5	07/21/15 15:21	EC	
xylenes, total	EPA 624	BMDL	ug/L	2.95	5	07/21/15 15:21	EC	
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.85	5	07/21/15 15:21	EC	
para-chloro meta-cresol	EPA 625	BMDL	ug/L	6.16	10	07/23/15 12:01	EC	
2-chlorophenol	EPA 625	BMDL	ug/L	5.86	10	07/23/15 12:01	EC	
2,4-dichlorophenol	EPA 625	BMDL	ug/L	6.21	10	07/23/15 12:01	EC	
2,4-dimethylphenol	EPA 625	BMDL	ug/L	6.55	10	07/23/15 12:01	EC	
2-nitrophenol	EPA 625	BMDL	ug/L	5.17	10	07/23/15 12:01	EC	
4-nitrophenol	EPA 625	BMDL	ug/L	20.5	40	07/23/15 12:01	EC	
2,4-dinitrophenol	EPA 625	BMDL	ug/L	13.4	20	07/23/15 12:01	EC	
4,6-dinitro-o-cresol	EPA 625	BMDL	ug/L	8.02	10	07/23/15 12:01	EC	
Pentachlorophenol	EPA 625	BMDL	ug/L	5.26	10	07/23/15 12:01	EC	
Phenol	EPA 625	BMDL	ug/L	8.17	10	07/23/15 12:01	EC	
2,4,6-trichlorophenol	EPA 625	BMDL	ug/L	4.55	10	07/23/15 12:01	EC	
1,2-Diphenylhydrazine	EPA 625	BMDL	ug/L	8.85	10	07/23/15 12:01	EC	
Acenaphthene	EPA 625	BMDL	ug/L	7.08	10	07/23/15 12:01	EC	
Acenaphthylene	EPA 625	BMDL	ug/L	4.07	10	07/23/15 12:01	EC	
Anthracene	EPA 625	BMDL	ug/L	6.66	10	07/23/15 12:01	EC	
Benzidine	EPA 625	BMDL	ug/L	34.7	40	07/23/15 12:01	EC	
benzo (a) anthracene	EPA 625	BMDL	ug/L	5.1	10	07/23/15 12:01	EC	
benzo (ghi)perylene	EPA 625	BMDL	ug/L	5.58	10	07/23/15 12:01	EC	O34
Benzo(A)Pyrene	EPA 625	BMDL	ug/L	5.61	10	07/23/15 12:01	EC	
benzo(b)fluoranthene	EPA 625	BMDL	ug/L	6.56	10	07/23/15 12:01	EC	
benzo(k)fluoranthene	EPA 625	BMDL	ug/L	6.73	10	07/23/15 12:01	EC	
Bis (2-chloroethyl) Ether	EPA 625	BMDL	ug/L	8.42	10	07/23/15 12:01	EC	
bis(2-Chloroethoxy)methane	EPA 625	BMDL	ug/L	5.48	10	07/23/15 12:01	EC	
bis(2-chloroisopropyl)ethe	EPA 625	BMDL	ug/L	9.55	10	07/23/15 12:01	EC	
bis(2-Ethylhexyl)phthalate	EPA 625	BMDL	ug/L	7.58	10	07/23/15 12:01	EC	
Butylbenzyl phthalate	EPA 625	BMDL	ug/L	7.35	10	07/23/15 12:01	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report No 69-0715 Date Received: 7/15/2015

Location effluent PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
148985-01									
Cyanide	<0.0050	mg/L		0.005	0.01	EPA 335.4(1993)	07/15/15 07:55	07/30/15 09:34	CR
DO	8.07	mg/L				SM 4500 OG-2001	07/15/15 07:55	07/15/15 16:10	TC
Fecal Coliform	<1	MPN		1	1	Colilert-18®(Fecal Coliforms)	07/15/15 07:55	07/15/15 16:00	AF
Oil & Grease	<1.00	mg/L		1	5	EPA 1664A	07/15/15 07:55	07/27/15 15:30	HK
pH	7.25	pH Units				EPA 150.1	07/15/15 07:55	07/15/15 16:10	TC
Phenol	0.0280	mg/L	N10	0.02	0.05	EPA 420.1(1978)	07/15/15 07:55	07/22/15 10:00	BEH
TRC	0.20	mg/L		0.017	0.23	EPA 330.5	07/15/15 07:55	07/15/15 16:10	TC

Report No 69-0715 Date Received: 7/15/2015

Location Effluent PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
148985-02									
Ammonia	<0.100	mg N/L		0.1	0.2	EPA 350.1(1993)	07/15/15 06:35	07/21/15 08:37	SH
Antimony	<20.0	ug/L		20	25	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Arsenic	<22.0	ug/L		22	50	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Beryllium	<2.0	ug/L		2	5	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Cadmium	<5.0	ug/L		5	10	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Chromium	<10.0	ug/L		10	25	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Copper	8.4	ug/L	N10	6	10	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Hardness	158	mg/L CaCO3		3.4	3.4	SM 2340C-1997	07/15/15 06:35	07/29/15 10:00	AR
Lead	<27.0	ug/L		27	50	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Nickel	<5.0	ug/L		5	10	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
NO2-/NO3	16.1	mg N/L		0.045	0.1	EPA 353.2(1993)	07/15/15 06:35	08/04/15 12:59	CR
Selenium	<20.0	ug/L		20	25	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
Silver	<4.2	ug/L		4.2	10	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
TDS	312	mg/L(Dry)		2	2	SM 2540C-1997	07/15/15 06:35	07/20/15 16:10	BEH

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Results of Analysis For: Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Thallium	<22.0	ug/L		22	25	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW
TKN	<0.500	mg N/L		0.5	1.25	EPA 351.2(1993)	07/15/15 06:35	07/17/15 09:42	CR
T-Phosphorous	2.04	mg P/L		0.1	0.5	EPA 365.4(1974)	07/15/15 06:35	07/17/15 09:42	CR
Zinc	19.0	ug/L	N10	13	25	EPA 200.7(1994)	07/15/15 06:35	07/22/15 11:25	HW

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Staci Hickman 08/07/2015

Staci Hickman, QA/QC Manager Date

This person may be contacted for questions at the number listed above.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.

O4 = The matrix spike recovery of the compound was not within its target range.

O41 = For the sample spike and spike duplicate, the specified precision of 0-20% was not met for this compound.

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0715
Date Received: 7/15/2015

Sample Number: 148985-01
Description: grab

Collection Date: 07/15/2015 7:55
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
4-Bromophenyl-phenyl ether	EPA 625	BMDL	ug/L	7.07	10	07/23/15 12:01	EC	
2-Chloronaphthalene	EPA 625	BMDL	ug/L	5.72	10	07/23/15 12:01	EC	
4-chlorophenyl-phenyl ether	EPA 625	BMDL	ug/L	6.33	10	07/23/15 12:01	EC	
Chrysene	EPA 625	BMDL	ug/L	4.17	10	07/23/15 12:01	EC	
Di-n-butyl phthalate	EPA 625	BMDL	ug/L	5.61	10	07/23/15 12:01	EC	
Di-n-octyl phthalate	EPA 625	BMDL	ug/L	5.28	10	07/23/15 12:01	EC	
Dibenzo [a,h] anthracene	EPA 625	BMDL	ug/L	4.66	10	07/23/15 12:01	EC	
1,2-Dichlorobenzene	EPA 625	BMDL	ug/L	1.6	5	07/23/15 12:01	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	1.41	5	07/23/15 12:01	EC	
1,4-Dichlorobenzene	EPA 625	BMDL	ug/L	9.67	10	07/23/15 12:01	EC	
3,3-Dichlorobenzidine	EPA 625	BMDL	ug/L	12.2	20	07/23/15 12:01	EC	
Diethyl phthalate	EPA 625	BMDL	ug/L	4.73	10	07/23/15 12:01	EC	
Dimethlyl phthalate	EPA 625	BMDL	ug/L	4.92	10	07/23/15 12:01	EC	
Fluoranthene	EPA 625	BMDL	ug/L	5.8	10	07/23/15 12:01	EC	
Fluorene	EPA 625	BMDL	ug/L	5.38	10	07/23/15 12:01	EC	
Hexachlorobenzene	EPA 625	BMDL	ug/L	5.82	10	07/23/15 12:01	EC	
Hexachlorobutadiene	EPA 625	BMDL	ug/L	8.69	10	07/23/15 12:01	EC	
Hexachlorocyclopentadiene	EPA 625	BMDL	ug/L	6.93	10	07/23/15 12:01	EC	
Hexachloroethane	EPA 625	BMDL	ug/L	8.78	10	07/23/15 12:01	EC	
Indeno [1,2,3-cd] pyrene	EPA 625	BMDL	ug/L	7.43	10	07/23/15 12:01	EC	O4
Isophorone	EPA 625	BMDL	ug/L	7.55	10	07/23/15 12:01	EC	
Naphthalene	EPA 625	BMDL	ug/L	5.04	10	07/23/15 12:01	EC	
2,6-Dinitrotoluene	EPA 625	BMDL	ug/L	6.3	10	07/23/15 12:01	EC	
Nitrobenzene	EPA 625	BMDL	ug/L	5.09	10	07/23/15 12:01	EC	
N-nitroso-di-methylamine	EPA 625	BMDL	ug/L	7.66	10	07/23/15 12:01	EC	
N-nitroso-di-phenylamine	EPA 625	BMDL	ug/L	5.32	10	07/23/15 12:01	EC	
n-nitrosodi-n-propylamine	EPA 625	BMDL	ug/L	8.16	10	07/23/15 12:01	EC	
Phenanthrene	EPA 625	BMDL	ug/L	5.66	10	07/23/15 12:01	EC	
Pyrene	EPA 625	BMDL	ug/L	4.87	10	07/23/15 12:01	EC	

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0715
Date Received: 7/15/2015

Sample Number: 148985-01
Description: grab

Collection Date: 07/15/2015 7:55
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,2,4-trichlorobenzene	EPA 625	BMDL	ug/L	9.43	10	07/23/15 12:01	EC	
2,4-Dinitrotoluene	EPA 625	BMDL	ug/L	4.91	10	07/23/15 12:01	EC	

Surrogate	**Recovery %**	**Target Range**
2-Fluorophenol	32.1	10-121
phenol-d5	23.9	18-113
Nitrobenzene-d5	54.8	15-120
2-Fluorobiphenyl	55.7	26-115
2,4,6-Tribromophenol	61.6	19-124
p-Terphenyl-d14	73.3	18-137
1,2-Dichloroethane-d4	118	90-127
toluene-d8	92.0	88-110
4-Bromofluorobenzene	97.6	85-113

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Laboratory Report

Kellye Remson
Sylacauga Utilities Board
P.O. Box 207
Sylacauga, AL 35150

Report Number: 69-0715
Date Received: 7/15/2015

Sample Number: 148985-01
Description: grab

Collection Date: 07/15/2015 7:55
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

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Staci Hickman

Staci Hickman, QA/QC Manager

08/07/2015
Date

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

This person may be contacted for questions at the number listed above.

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

ACCREDITED IN ACCORDANCE WITH

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

August 5, 2015
Work Order: 1507705

Laboratory Report

Project Name	Sylacauga WWTP
Sample Description	148985-01
Matrix	Water
SAL Sample Number	1507705-01
Date/Time Collected	07/15/15 07:55
Collected by	Client
Date/Time Received	07/31/15 11:30

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Metals								
Mercury	ug/L	0.0018	EPA 1631	0.00040	0.00020	08/04/15 11:28	08/05/15 09:20	1

Alabama Certification Number: 41560
NELAP Accredited

Francis I. Daniels, Laboratory Director
Leslie C. Boardman, Q.A. Manager

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

ACCREDITED IN ACCORDANCE WITH

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

August 5, 2015
Work Order: 1507705

* Qualifiers, Notes and Definitions

Results followed by a "U" indicate that the sample was analyzed but the compound was not detected. Results followed by "I" indicate that the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

A statement of estimated uncertainty of test results is available upon request.

For methods marked with **, all QC criteria have been met for this method which is equivalent to a SAL certified method.

Test results in this report meet all the requirements of the NELAC standards. Any applicable qualifiers are shown below.

Questions regarding this report should be directed to :

Kathryn Nordmark
Telephone (813) 855-1844 FAX (813) 855-2218
Kathryn@southernanalyticallabs.com

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

ACCREDITED IN ACCORDANCE WITH

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

August 5, 2015
Work Order: 1507705

Laboratory Report

Project Name Sylacauga WWTP

Sample Description	148985-01
Matrix	Water
SAL Sample Number	1507705-01
Date/Time Collected	07/15/15 07:55
Collected by	Client
Date/Time Received	07/31/15 11:30

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Metals								
Mercury	ug/L	0.0018	EPA 1631	0.00040	0.00020	08/04/15 11:28	08/05/15 09:20	1

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Auburn, AL 36830

August 5, 2015
Work Order: 1507705

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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0020001 DSN: 012 COUNTY: Talladega
Permittee: Sylacauga Utilities Board
Facility Name: J. Earl Ham WWTP
Agent Submitting Report:
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Ct, Auburn, AL 36830
Months To Test: Yearly
This Report for Toxicity Test(s) Required for the Month of: Oct
Scheduled Test(s): Yes X No _____ Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: ____ Short-term Chronic Definitive: X

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	10/17/17 15:30	10/24/17 15:30	Yes	10/17/17 16:00	10/24/17 15:45	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	97%	PASS	N/A	PASS									
C.d.	97%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l		Cond uS
1	N/A	N/A	<0.100	7.51	108	177	<0.06		589
2	N/A	N/A	<0.100	7.52	101	181	<0.06		588
3	N/A	N/A	<0.100	7.57	104	216	<0.06		584

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 1.422 MGD (2) 1.458 MGD (3) 1.323 MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: David Ham DATE: 11/9/17

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN: 012 DATE: 10/17/17

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Shirtee Creek

Design Flow: 4.8 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	10/16/17 0630 - 10/17/17 0530	3.4	10/17/17 - 10/18/17
2	10/18/17 0800 - 10/19/17 0700	2.4	10/19/17 - 10/20/17
3	10/20/17 0750 - 10/21/17 0650	3.5	10/21/17 - 10/23/17

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	10/16/17	10/17/17	98	60	7.43	299 @ 25
MHRW	10/16/17	10/18/17	92	58	7.44	302 @ 25
MHRW	10/18/17	10/20/17	94	60	7.40	309 @ 25
MHRW	10/18/17	10/21/17	98	58	7.65	308 @ 25
MHRW	10/20/17	10/23/17	96	60	7.49	299 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 hr	Aquatic Bioassay Supply	97					
C.d.	8-16 hr	ERA	97					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.6 - 25.8	6.6 -11.1	7.16 -7.89	75
C.d.	24.6 - 25.8	7.2 -11.1	7.16 -8.00	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.130 mL Suspension Containing 1.87 mg/L TS Daily.

Algae: Fed 0.130 mL Suspension Containing 3×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Sylcauga WWTP NPDES #: AL0020001 DSN: 012 DATE: 10/17/17

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	10/17/17-10/24/17	MHRW	0	2.0	4.0	6.0	8.0	10.0
C.d.	10/10/17-10/17/17	MHRW	0	0.5	1.0	1.5	2.0	2.5

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	4.0	2.0 - 4.0	20
P.p.	Growth	2.0	2.0 - 4.0	20
C.d.	Survival	1.0	0.5 - 1.5	20
C.d.	Reproduction	0.5	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ NO X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT : 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN:012 DATE:10/17/17

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES __ NO __X
CONTROL: 28.2 EFFLUENT: 30.3
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ t Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT: 24h 100 48h 100 7day 98
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ t Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____(Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL: 0.312 mg EFFLUENT: 0.312 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: _____Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ t Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
________ Date Required

Client: Sylacauga WWTP
Project: 69-1017

Sample No.	173172-01	G or C	Composite Sample(s): Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Analytical Measurements Taken By ERA: Test	Analyst	Date/Time	Meter #	Probe #
Location	Effluent	comp	350 ml / hr	10-15-17 / 0630	10-16-17 / 0530					
Collector	K. Remson									
Date/Time Sampled	10-16-17 / 0750									

Flow Rate (MGD) 1.422

Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	[initials]
-01b	None	toxicity	[initials]

Relinquished By: Kelly A. Remson Date/Time: 10-16-17/0755 Received By: Lab Refrigerator Date/Time: 10-16-17/0755
Relinquished By: Lab Refrigerator Date/Time: 10/16/17/12:50 Received By: [signature] Date/Time: 10/16/17/12:50
Relinquished By: ________ Date/Time: ________

Received at Lab By: [signature] Date/Time: 10/16/17/ 15:25 Method of Transfer: ERA Arrival Temp (°C): 3.4 Custody Seals Intact: Y

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1017

	Sample No.	Location	Collector	Date/Time Sampled	G or C	Composite Sample(s) Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Analytical Measurements Taken By ERA: Test	Analyst	Date/Time	Meter #	Probe #
	173173-01	Effluent	K. Remson	10-18-17 / 08	comp	350 ml / hr	10-17-17 / 0800	10-18-17 / 0700					

Flow Rate (MGD) 1.458

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	WW	-01b	None	toxicity	WW

Relinquished By: Kelly A. Remson Date/Time: 10-18-17 / 1040 Received By: WW Date/Time: 10-18-17 / 1040
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: WW Date/Time: 10/18/17 1530 Method of Transfer: ERA Arrival Temp (°C): 2.4°C Custody Seals Intact: N/A

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1017

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	173174-01	comp	350 ml / hr	10-19-17 / 0750	10-20-17 / 0650					
Location	Effluent									
Collector	K. Remson									
Date/Time Sampled	10-20-17 / 0810									

Flow Rate (MGD) 1.323

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BG	-01b	None	toxicity	BG

Relinquished By: Kelly A. Remson Date/Time: 10-20-17 / 1055 Received By: BG Date/Time: 10-20-17 1055
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 10-20-17 1400 Method of Transfer: ERA Arrival Temp (°C): 3.5 Custody Seals Intact: Y

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Sylacauga

Test #: 85-49

Age of Test Organisms: 24-48 hrs

Ambient Laboratory Illumination

Water Volume: 250mL

Source: ABS **Lot #:** 798

Test Start Date: 10.17.17 **Time:** 1600

Brine Shrimp Lot #: 29

Test End Date: 10.24.17 **Time:** 1545

Photoperiod: 16hrs. L; 8hrs. D

CONTROL

for DO, pH, and temp. readings: old water/ new water

Test Day	Number Alive Replicate Number 1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.83	8.8	24.6	1910	N/A [illegible]	10.17.17 1600 AF	YSI2 #2	AB153 #22	3458	773 237#1	N
1	10	10	10	10	40	7.81 / 7.85	7.7 / 8.6	25.3 / 24.8	0900 / 1910	ZM	10.18.17 1600 ZM			3459		N
2	10	10	10	10	40	7.81 / 7.79	7.8 / 8.0	25.4 / 24.7	0900 / 1910	ZM	10.19.17 1600 ZM			3459		N
3	10	10	10	10	40	7.77 / 7.71	7.9 / 8.5	25.5 / 25.1	0900 / 1730	SH	10.20.17 1400 SH			3460		N
4	10	10	10	10	40	7.65 / 7.80	7.7 / 8.6	25.4 / 25.0	0900 / 1730	SH	10.21.17 1400 SH			3461		N
5	10	10	10	10	40	7.74 / 7.82	7.8 / 8.5	25.4 / 25.1	0900 / 1730	SH	10.22.17 1400 SH			3461		N
6	10	10	10	10	40	7.69 / 7.79	7.6 / 8.7	25.5 / 25.2	0800 / 1715	SH	10.23.17 1400 SH			3462		N
7	10	10	10	10	40	7.86	7.6	25.8	N/A	N/A	10.24.17 1545 AF			N/A		N

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 8549 Client: Sylacauga

97 %Effluent Sample #s: 1) 173172 2) 173173 3) 173174

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.47	11.1	25.8	1910 AF	N/A	10.17.17 1615 AF	N	7.59
1	10	10	10	10	40	7.88 / 7.16	7.2 / 8.6	25.3 / 25.4	0900 / 1910	2m	10.18.17 1615 2m	N	7.66
2	10	10	10	10	40	7.90 / 7.49	7.5 / 9.3	25.5 / 25.5	0900 / 1910	2m	10.19.17 1615 2m	N	7.57
3	10	10	10	10	40	7.86 / 7.46	7.7 / 10.9	25.4 / 25.3	0900 / 1730	SH	10.20.17 1415 SH	N	7.57
4	10	10	10	10	40	7.79 / 7.51	7.10 / 9.4	25.6 / 25.2	0900 / 1730	SH	10.21.17 1415 SH	N	7.61
5	10	10	10	10	40	7.87 / 7.45	7.2 / 9.6	25.4 / 25.3	0900 / 1730	SH	10.22.17 1415 SH	N	7.58
6	10	10	10	10	40	7.84 / 7.47	7.4 / 9.8	25.5 / 25.4	0800 / 1715	SH	10.23.17 1415 SH	N	7.60
7	10	10	10	9	39	7.89	6.6	25.6	N/A	N/A	10.24.17 1600 AF	N	7.65

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 85-49 Analyst: AF Balance #: AND #2

Date/Time in Oven: 10/24/17 17:30 Date/Time Out of Oven: 10/25/17 17:30 Oven Temp: 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	0.98526	0.98523	N/A	N/A	N/A
Control	1	0.99700	1.00003	10	0.303	
	2	0.99418	0.99722	10	0.304	
	3	0.99128	0.99462	10	0.334	0.312
	4	0.98337	0.98644	10	0.307	
97 % Effluent	1	1.02111	1.02395	10	0.284	
	2	1.01089	1.01470	10	0.381	
	3	1.01572	1.01867	10	0.295	0.312
	4	0.99780	1.00069	9	0.289	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Sylacauga

Test #: 85-49 Age of Test Organisms: 8-16 hours Ambient Laboratory Illumination

Water Volume: 20mL Source: ERA Photoperiod: 16hrs. L; 8hrs. D

YCT Lot #: 207 1.870 g/L solids 0.13 mL fed per cup Test Start Date: 10-17-17 Time: 1530

Algae Lot #: 205 3x10^7 cells/mL 0.13mL algae fed/cup Test End Date: 10-24-17 Time: 1530

CONTROL for DO, pH, and temp. readings: old water/ new water

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.83	8.8	24.6	AF	N/A	10.17.17 1530 AF	YSI2 #2	AB153 #22	3458	773257 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.79 / 7.85	7.9 / 8.6	25.4 / 24.8	ZM	ZM	10.18.17 1530 ZM			3459		N
2	1	1	1	1	1	1	1	1	1	1	10	7.77 / 7.79	7.3 / 8.0	25.4 / 24.7	ZM	ZM	10.19.17 1530			3459		N
3	1	1	1	1	1	1	1	1	1	1	10	7.74 / 7.71	7.6 / 8.5	25.4 / 25.1	SH	SH	10.20.17 1330 SH			3460		N
4	1/3	1/2	1/3	1/3	1/3	1/2	1/2	1/3	1/3	1/5	10	7.67 / 7.80	7.5 / 8.6	25.3 / 25.0	SH	SH	10.21.17 1330 SH			3461		N
5	1	1	1	1	1	1/6	1	1	1/9	1/8	10	7.71 / 7.82	7.3 / 8.5	25.4 / 25.1	SH	SH	10-22-17 1330 SH			3461		N
6	1/10	1/13	1/14	1/10	1/16	1	1/14	1/12	1	1	10	7.68 / 7.79	7.6 / 8.7	25.5 / 25.2	SH	SH	10.23.17 1330 SH			3462		N
7	1/13	1/15	1/14	1/12	1/14	1/18	1/12	1/12	1/8	1/13	10	7.89 / N/A	8.1 / N/A	25.5 / N/A	N/A	N/A	10.24.17 1530 AF			N/A		N
8																						
Neonates	26	30	31	25	33	26	28	27	30	26					N/A	N/A						

Observations Key

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming. FC = Flared Carapace F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates/female
28.2

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 85 **Client:** Sylacauga

97 **% Effluent** **Sample #s:** 1) 173172 2) 173173 3) 173174

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.47	11.1	25.8	AF	NA	10.17.17 1545 AF	N
1	1	1	1	1	1	1	1	1	1	1	10	8.00 / 7.16	8.2 / 8.6	25.4 / 25.4	ZM	ZM	10.18.17 1545 ZM	N
2	1	1	1	1	1	1	1	1	1	1	10	7.85 / 7.49	7.2 / 9.3	25.5 / 25.5	ZM	ZM	10.19.17 1545 ZM	N
3	1	1	1	1	1	1	1	1	1	1	10	7.91 / 7.46	7.8 / 10.9	25.5 / 25.3	SH	SH	10.20.17 1345 SH	N
4	1/7	1/3	1/3	1/2	1/2	1/7	1/4	1/4	1/8	1/6	10	7.96 / 7.51	7.4 / 9.4	25.4 / 25.2	SH	SH	10.21.17 1345 SH	N
5	1	1	1	1/0	1	1	1	1/7	1	1	10	7.84 / 7.45	7.2 / 9.6	25.5 / 25.3	SH	SH	10.22.17 1345 SH	N
6	1/10	1/14	1/15	1	1/13	1/11	1/11	1	1/10	1/9	10	7.87 / 7.47	7.4 / 9.8	25.4 / 25.4	SH	SH	10.23.17 1345 SH	N
7	1/12	1/13	1/17	1/17	1/15	1/11	1/14	1/19	1/18	1/11	10	7.81 / N/A	7.4 / N/A	25.4 / N/A	N/A	N/A	10.24.17 1545 AF	N
8												/	/	/				
# Neonates	29	30	35	29	30	29	29	30	36	26					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
30.3

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Sylacauga

Sample Collection Lab#/ Date/Time	Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
10.16.17 0530	#1	10.16.17 1710	AF	AB15-3 #22	7.51	10.16.17 1710	0.01
10.18.17 0700	#2	10.18.17 1700	ZM	AB15-3 #22	7.52	10.18.17 1700	0.02
10.20.17 0650	#3	10.20.17 1700	SH	"	7.57	10.20.17 1700	0.02

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0020001 DSN: 013 COUNTY: Talladega
Permittee: Sylacauga Utilities Board
Facility Name: J. Earl Ham WWTP
Agent Submitting Report:
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Ct, Auburn, AL 36830
Months To Test: Yearly
This Report for Toxicity Test(s) Required for the Month of: Oct
Scheduled Test(s): Yes X No Accelerated Test(s): Yes No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: ____ Short-term Chronic Definitive: X

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	10/11/16 13:00	10/18/16 11:30	Yes	10/11/16 15:00	10/18/16 14:15	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	62%	PASS	N/A	PASS									
C.d.	62%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l		Cond uS
1	N/A	N/A	<0.100	7.67	124	185	<0.06		703
2	N/A	N/A	<0.100	7.59	120	189	<0.06		700
3	N/A	N/A	0.204	7.06	128	208	<0.06		765

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 1.224 MGD (2) _____ MGD (3) _____ MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: David J. Brown DATE: 11/14/16

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN: 013 DATE: 10/11/16

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Shirtee Creek

Design Flow: 4.8 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	10/09/16 0850 - 10/10/16 0750	3.8	10/11/16 - 10/12/16
2	10/11/16 0750 - 10/12/16 0650	4.0	10/13/16 - 10/14/16
3	10/13/16 0800 - 10/14/16 0700	4.5	10/15/16 - 10/17/16

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	10/07/16	10/11/16	92	62	7.26	301 @ 25
MHRW	10/10/16	10/12/16	94	64	7.25	306 @ 25
MHRW	10/10/16	10/14/16	77	60	7.24	303 @ 25
MHRW	10/13/16	10/15/16	81	60	7.29	304 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 hr	Aquatic Bioassay Supply	62					
C.d.	5-13 hr	ERA	62					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.6 - 25.5	6.7 - 9.8	7.34 -7.89	75
C.d.	24.6 - 25.8	7.8 - 9.8	7.36 -7.86	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.130 mL Suspension Containing 1.74 mg/L TS Daily.

Algae: Fed 0.130 mL Suspension Containing 3×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Sylcauga WWTP NPDES #: AL0020001 DSN: 013 DATE: 10/11/16

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	10/04/16-10/11/16	MHRW	0	2.0	4.0	6.0	8.0	10.0
C.d.	10/04/16-10/11/16	MHRW	0	0.5	1.0	1.5	2.0	2.5

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	4.0	2.0 - 4.0	20
P.p.	Growth	2.0	2.0 - 4.0	20
C.d.	Survival	1.5	0.5 - 1.5	20
C.d.	Reproduction	0.5	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ NO X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT : 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN: 013 DATE: 10/11/16

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ NO ___X
CONTROL: 26.1 EFFLUENT: 30.1
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT: 24h 100 48h 100 7day 100
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____(Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL: 0.354 mg EFFLUENT: 0.404 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: ___X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: _____Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1016

	Sample No.	162537-01
	Location	Effluent
	Collector	K. Remson
	Date/Time Sampled	10-10-16 / 0820

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
comp	250ml / hr	10-9-16 / 0850	10-10-16 / 0750					

Flow Rate (MGD) 1.224

Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BG
-01b	None	toxicity	BG

Relinquished By: Kelly A. Remson Date/Time: 10-10-16/0825 Received By: Lab-Refrigerator Date/Time: 10-10-16/0825
Relinquished By: _____ Date/Time: _____ Received By: BG Date/Time: 10-10-16 1105
Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 10-10-16 1345 Method of Transfer: ERA Arrival Temp (C): 3.8 COC Seal Intact: ☐

For Outfall #013

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1016

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	162538-01	comp	250 ml / hr	10-11-16 / 0750	10-12-16 / 0650					
Location	Effluent									
Collector	K. Ramson									
Date/Time Sampled	10-12-16/0825									

Flow Rate (MGD) _____

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BG	-01b	None	toxicity	BG

Relinquished By: Kelly A. Ramson Date/Time: 10-12-16/0830 Received By: Lab Refrigerator Date/Time: 10-12-16/0830
Relinquished By: _____ Date/Time: _____ Received By: BG Date/Time: 10-12-16 0955
Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 10-12-16 1335 Method of Transfer: ERA Arrival Temp (C): 4.0 COC Seal Intact: ☐

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1016

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	162539-01	comp	250 ml / hr	10-13-16 / 0800	10-12-16 / 0700					
Location	Effluent									
Collector	K. Remson									
Date/Time Sampled	10-14-16 / 0750									

Flow Rate (MGD) _____

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BG	-01b	None	toxicity	BG

Relinquished By: Kristy A. Remson Date/Time: 10-14-16 / 0755 Received By: Lab Refrigerator Date/Time: 10-14-16 / 0755
Relinquished By: _____ Date/Time: _____ Received By: BG Date/Time: 10-14-16 1105
Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 10-14-16 1350 Method of Transfer: ERA Arrival Temp (C): 4.5 COC Seal Intact: ☐

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Sylacauga

Test #: 85-48 **Age of Test Organisms:** 24-48hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** 747

Test Start Date: 10.11.16 **Time:** 15:00 **Brine Shrimp Lot #:** 27

Test End Date: 10.18.16 **Time:** 14:15 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.76	8.5	25.1	1730	N/A	10.10.16 AF roll 1500 AF	YS12 #2	AB153 #20	3268	7732371 #1	N
1	10	10	10	10	40	7.56 / 7.79	7.3 / 8.6	24.8 / 24.16	0830 / 1600	AF	10.12.16 1300 AF			3270		N
2	10	10	10	10	40	7.62 / 7.85	7.1 / 8.7	25.1 / 24.8	0900 / 1700	AF	10.13.16 1615 AF			3270		N
3	10	10	10	10	40	7.53 / 7.55	7.2 / 8.7	25.3 / 24.6	0900 / 1800	AF	10.14.16 1630 AF			3271		N
4	10	10	10	10	40	7.55 / 7.41	7.4 / 8.5	25.2 / 24.9	900 / 1700	NG	10.15.16 1630 NG			3272		N
5	10	10	10	10	40	7.61 / 7.52	7.3 / 8.6	25.2 / 24.8	800 / 1700	NG	10.16.16 1630 NG			3272		N
6	10	10	10	10	40	7.43 / 7.53	7.1 / 8.5	25.5 / 24.6	900 / 1600	ZM	10.17.16 1300 ZM			3272		N
7	10	10	10	10	40	7.45	7.5	25.3	N/A	N/A	10.18.16 1415 AF			N/A		N

Observations Key

OS = On Surface **LETH = Lethargic** **N = Normal** **CO = Caught On** **N/A = Not Applicable**
ON = On Bottom **ERR = Erratic Swimming** **FC = Flared Carapace** **F = Film** **CLDY = Cloudy**
PRE = Precipitate **UM = Undissolved Material** **PM = Particulate Matter**

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT.** **AUBURN, AL 36830** **(334) 502-3444**

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 85-48 **Client:** Sylacauga

62 **% Effluent** **Sample #s: 1)** 162537 **2)** 162538 **3)** 162539

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.49	9.2	24.1	1730	N/A	10.11.16 1510 AF	N	7.92
1	10	10	10	10	40	7.69 / 7.48	6.7 / 9.4	25.0 / 25.4	0830 / 1600	AF	10.12.16 1310 AF	N	7.86
2	10	10	10	10	40	7.89 / 7.54	7.3 / 9.8	25.3 / 25.2	0900 / 1700	AF	10.13.16 1625 AF	N	7.60
3	10	10	10	10	40	7.53 / 7.70	7.1 / 9.6	25.1 / 24.7	0900 / 1800	AF	10.14.16 1640 AF	N	7.46
4	10	10	10	10	40	7.34 / 7.51	7.4 / 9.1	25.2 / 24.8	900 / 1700	NG	10.15.16 1640 NG	N	7.47
5	10	10	10	10	40	7.52 / 7.62	7.2 / 9.2	25.1 / 24.8	800 / 1700	NG	10.16.16 NG 1640	N	7.52
6	10	10	10	10	40	7.65 / 7.47	6.9 / 9.1	25.5 / 24.8	0900 / 1600	ZM	10.17.16 1310 ZM	N	7.65
7	10	10	10	10	40	7.71	6.8	25.4	N/A	N/A	10.18.16 2 AF 10/18/16 1435 AF	N	7.71

Observations Key

OS = On Surface **LETH = Lethargic** **N = Normal** **CO = Caught On** **N/A = Not Applicable**
ON = On Bottom **ERR = Erratic Swimming** **FC = Flared Carapace** **F = Film** **CLDY = Cloudy**
PRE = Precipitate **UM = Undissolved Material** **PM = Particulate Matter**

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT. AUBURN, AL 36830** **(334) 502-3444**

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 85-48 **Analyst:** AF **Balance #:** AND #2

Date/Time in Oven: 10/18/16 15:20 **Date/Time Out of Oven:** 10/19/16 15:20 **Oven Temp:** 60 C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	0.96055	0.96053	N/A	N/A	N/A
Control	1	1.00707	1.01073	10	0.366	0.354
	2	0.98328	0.98687	10	0.359	
	3	0.95994	0.96341	10	0.347	
	4	0.95693	0.96038	10	0.345	
62 % Effluent	1	0.98456	0.98864	10	0.408	0.404
	2	0.98834	0.99224	10	0.390	
	3	1.02468	1.02896	10	0.428	
	4	1.06528	1.06918	10	0.390	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Sylacauga

Test #: 85-48 **Age of Test Organisms:** 5-13 hrs **Ambient Laboratory Illumination**

Water Volume: 20mL **Source:** ERA **Photoperiod:** 16hrs. L; 8hrs. D

YCT Lot #: 257 1.735 **g/L solids** 0.13 **mL fed per cup** **Test Start Date:** 10.11.16 **Time:** 1300

Algae Lot #: 255 3x10⁷ **cells/mL** 0.13 **mL algae fed/cup** **Test End Date:** 10.18.16 **Time:** 11:30

CONTROL **for DO, pH, and temp. readings: old water/ new water**

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.76	8.5	25.1	ZM	N/A	10.11.16 13:00 ZM	YS12 #2	AB153 #20	3268	773237 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.37/7.49	8.1/8.6	25.8/24.6	AF	ZM	10.12.16 13:00 ZM			3270		N
2	1	1	1	1	1	1	1	1	1	1	10	7.36/7.15	8.0/8.7	25.2/24.8	AF	AF	10.13.16 1330 AF			3270		N
3	1	1	1	1	1	1	1	1	1	1	10	7.86/7.55	8.0/8.7	25.1/24.6	AF	AF	10.14.16 1400 AF			3271		N
4	1/4	1/4	1/1	1	1/6	1/8	1/7	1/6	1/4	1/6	10	7.62/7.41	7.9/8.5	25.1/24.9	NG	NG	10.15.16 1300 NG			3272		N
5	1	1	1/2	1/10	1	1	1	1	1	1	10	7.82/7.52	7.8/8.6	24.8/24.8	AF 10/16/16 SH	SH	10.16.16 1300 SH			3272		N
6	1/8	1/7	1	1/9	1/9	1/10	1/11	1/11	1/7	1/6	10	7.63/7.53	7.8/8.5	25.3/24.6	AF	AF	10.17.16 1330 AF			3272		N
7	1/12	1/11	1/17	1/11	1/9	1/14	1/21	1/15	1/16	1/9	10	7.51/N/A	7.9/N/A	25.4/N/A	N/A ~~AF~~ AF 10/18/16	N/A ~~AF~~	10.18.16 1130 AF			N/A		N
8																						
Neonates	24	22	20	30	24	32	29	32	27	21					N/A	N/A						

Observations Key

OS = On Surface	**LETH = Lethargic**	**N = Normal**	**CO = Caught On**	**N/A = Not Applicable**
ON = On Bottom	**ERR = Erratic Swimming**	**FC = Flared Carapace**	**F = Film**	**CLDY = Cloudy**
PRE = Precipitate	**UM = Undissolved Material**		**PM = Particulate Matter**	

Average # neonates/female
26.1

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 85-48 **Client:** Sylacauga

62 **% Effluent** **Sample #s: 1)** 162537 **2)** 162538 **3)** 162539

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.49	9.2	24.1	ZM	NA	10.11.16 1310 ZM	N
1	1	1	1	1	1	1	1	1	1	1	10	7.57 / 7.48	8.4 / 9.4	25.8 / 25.4	AF	ZM	10.12.16 1310 ZM	N
2	1	1	1	1	1	1	1	1	1	1	10	7.61 / 7.54	8.6 / 9.8	25.0 / 25.2	AF	AF	10.13.16 1340 AF	N
3	1	1	1	1	1	1	1	1	1	1	10	7.59 / 7.70	8.2 / 9.6	25.2 / 24.7	AF	AF	10.14.16 1410 AF	N
4	1/7	1/2	1/7	1/4	1/1	1/3	1/8	1/9	1/9	1/9	10	7.64 / 7.51	8.3 / 9.1	25.2 / 24.8	NG	NG	10.15.16 1310 NG	N
5	1	1	1/10	1	1	1	1	1	1	1	10	7.73 / 7.62	8.4 / 9.2	24.9 / 24.8	SH	SH	10.16.16 1310 SH	N
6	1/11	1/10	1	1/13	1/10	1/14	1/12	1/6	1/7	1/13	10	7.84 / 7.47	7.9 / 9.1	25.1 / 24.8	AF	AF	10.17.16 1340 AF	N
7	1/15	1/14	1/11	1/15	1/14	1/15	1/14	1/15	1/9	1/14	10	7.69 / N/A	8.1 / N/A	25.2 / N/A	N/A	N/A	10.18.16 1140 AF	N
8												/	/	/				
# Neonates	33	26	28	32	25	32	34	30	25	36					N/A	N/A		

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapac
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

Average # neonates per female
30.1

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Sylacauga

Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1	10.10.16 1645	AF	AB153 #20	7.67	10.10.16 1645	0.00
#2	10.12.16 1645	AF		7.59	10.12.16 1645	0.00
#3	10.14.16 1745	AF		7.06	10.14.16 1745	0.00

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0020001 DSN: 001 COUNTY: Talladega
Permittee: Sylacauga Utilities Board
Facility Name: J. Earl Ham WWTP
Agent Submitting Report:
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Ct, Auburn, AL 36830
Months To Test: Yearly
This Report for Toxicity Test(s) Required for the Month of: Oct
Scheduled Test(s): Yes X No _____ Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: ____ Short-term Chronic Definitive: X

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	10/28/14 14:00	11/04/14 12:00	Yes	10/28/14 17:00	11/04/14 17:30	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

Test	Eff.	Test Number (1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	62%	PASS	N/A	PASS									
C.d.	62%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l		Cond uS
1	N/A	N/A	<0.050	7.35	118	177	<0.06		700
2	N/A	N/A	<0.050	7.31	112	181	<0.06		695
3	N/A	N/A	<0.050	7.32	114	169	<0.06		723

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) _____ MGD (2) _____ MGD (3) _____ MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: Gary Walker DATE: 11-14-14

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN: 001 DATE: 10/28/14

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Shirtee Creek

Design Flow: 2.4 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	10/26/14 0902 - 10/27/14 0802	4.2	10/28/14 - 10/29/14
2	10/28/14 0750 - 10/29/14 0650	3.4	10/30/14 - 10/31/14
3	10/30/14 0710 - 10/31/14 0710	3.7	11/01/14 - 11/03/14

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	10/24/14	10/28/14	99	70	7.77	315 @ 25
MHRW	10/24/14	10/29/14	85	65	7.95	387 @ 25
MHRW	10/28/14	10/30/14	93	63	7.95	392 @ 25
MHRW	10/30/14	10/31/14	83	61	8.14	379 @ 25
MHRW	10/30/14	11/01/14	89	65	7.86	403 @ 25
MHRW	10/30/14	11/03/14	83	61	8.02	381 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 hr	Aquatic Bioassay Supply	62					
C.d.	6-14 hr	ERA	62					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.4 - 25.7	6.8 - 9.8	7.04 -7.93	75
C.d.	24.4 - 25.7	8.1 - 9.8	7.42 -7.81	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.130 mL Suspension Containing 1.70 mg/L TS Daily.

Algae: Fed 0.130 mL Suspension Containing 3×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Sylcauga WWTP NPDES #: AL0020001 DSN: 001 DATE: 10/28/14

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L ____ g/L X % ___ Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	10/07/14-10/14/14	MHRW	0	1.0	2.0	3.0	4.0	5.0	6.0
C.d.	10/07/14-10/14/14	MHRW	0	0.25	0.50	1.00	1.50	2.00	

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	2.0	2.0 - 4.0	20
P.p.	Growth	4.0	2.0 - 4.0	20
C.d.	Survival	1.5	0.5 - 1.5	20
C.d.	Reproduction	0.5	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ NO X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT : 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN: 001 DATE: 10/28/14

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES __ NO X
CONTROL: 28.0 EFFLUENT: 38.4
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT: 24h 100 48h 100 7day 100
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL: 0.332 mg EFFLUENT: 0.373 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: _____ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1014

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample	Last Subsample	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	141742-01	comp	250 ml / hr	10-26-14 / 0902	10-27-14 / 0802					
Location	Effluent tox									
Collector	K. Remson									
Date/Time Sampl	10-27-14 / 0815									

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	ST	-01b	None	toxicity	ST

Relinquished By: Kelly A. Remson Date/Time: 10-27-14 / 0820 Received By: Lab Refrigerator Date/Time: 10-27-14 / 0820
Relinquished By: _____ Date/Time: _____ Received By: S.T. Date/Time: 10-27-14 9:35
Relinquished By: _____ Date/Time: _____

Received at Lab By: ST Date/Time: 10-27-14 12:50 Method of Transfer: ERA Arrival Temp (C): 4.2°C

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1014

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample	Last Subsample	Test	Analyst	Date/Time	Meter #	Probe #
comp	250 ml / he	10-28-14 / 0750	10-29-14 / 0650					

Sample No.	**141743-01**
Location	Effluent tox
Collector	G. Walker
Date/Time Sampl	10-29-14 / 8 Am

Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	ST
-01b	None	toxicity	ST

Relinquished By: Kerry Walker Date/Time: 10-29-14 / 8Am Received By: Lab Refrigerator Date/Time: 10-29-14 / 8
Relinquished By: _____ Date/Time: _____ Received By: ST Date/Time: 10-29-14 9:45
Relinquished By: _____ Date/Time: _____

Received at Lab By: ST Date/Time: 10-29-14 12.50 Method of Transfer: ERA Arrival Temp (C): 3.4

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1014

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample	Last Subsample	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	**141741-01**	comp	250 ml / hr	10-30-14 / 8:10	10-31-14 / 7:10					
Location	Effluent tox									
Collector	E. Walker									
Date/Time Sampl	10-31-14 / 9 Am									

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BA	-01b	None	toxicity	BA

Relinquished By: Gerry Walker Date/Time: 10-31-14 / 9:05 Received By: Lab Refrigerator Date/Time: 10-31-14 / 9:0
Relinquished By: _____ Date/Time: 10-31-14 / 10:07 Received By: Burt Head Date/Time: 10-31-14 / 10:07
Relinquished By: _____ Date/Time: _____

Received at Lab By: Burt Head Date/Time: 10-31-14 / 13:15 Method of Transfer: ERA Arrival Temp (C): 3.7°

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Sylacauga

Test #: 85-46 **Age of Test Organisms:** 24-48 hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** ABS 072

Test Start Date: 10.28.14 **Time:** 10.28.14 17:00 **Brine Shrimp Lot #:** 25

Test End Date: 11.04.14 **Time:** 1730 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	8.06	8.7	24.7	18:05	NA	10.28.14 17:00 AT	YSI 2 #2	AB153 #14	2867	773237 #1	N
1	10	10	10	10	40	7.55 / 7.93	7.5 / 8.7	24.4 / 24.6	9:00 / 16:20	AT	10.29.14 15:15 AT			2868		N
2	10	10	10	10	40	7.48 / 7.67	7.5 / 8.8	24.4 / 24.8	9:00 / 17:35	AT	10.30.14 16:30 AT			2869		N
3	10	10	10	10	40	7.48 / 7.95	7.3 / 8.4	24.6 / 24.7	9:00 / 16:35	AT	10.31.14 15:30 AT			2870		N
4	10	10	10	10	40	7.04 / 7.60	7.10 / 8.6	24.5 / 24.8	12:00 / 19:00	AR	11-1-14 18:00 AR			2871		N
5	10	10	10	10	40	7.45 / 7.63	7.4 / 8.4	24.7 / 24.6	8:30 / 18:00	WT	11/2/14 17:00 WT			2871		N
6	10	10	10	10	40	7.49 / 7.60	7.4 / 8.8	24.5 / 24.7	900 / 1900	TCC	11.03.14 1700 TCC			2872		N
7	10	10	10	10	40	7.53	7.7	24.8	N/A	N/A	11.04.14 1730 AT			N/A		N

Observations Key

OS = On Surface	LETH = Lethargic	N = Normal	CO = Caught On	N/A = Not Applicable
ON = On Bottom	ERR = Erratic Swimming	FC = Flared Carapace	F = Film	CLDY = Cloudy
PRE = Precipitate	UM = Undissolved Material		PM = Particulate Matter	

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 85 -46 **Client:** Sylacauga

62 **% Effluent** **Sample #s: 1)** 141742 **2)** 141743 **3)** 141741

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.51	8.9	24.6	18:05	NA	10.28.14 17:15 AT	N	7.31
1	10	10	10	10	40	7.58 / 7.48	7.4 / 9.1	24.5 / 24.4	9:00 / 16:20	AT	10.29.14 15:30 AT	N	7.33
2	10	10	10	10	40	7.65 / 7.51	6.9 / 9.3	24.7 / 24.6	9:00 / 17:35	AT	10.30.14 16:45 AT	N	7.35
3	10	10	10	10	40	7.59 / 7.64	6.8 / 9.5	24.9 / 24.7	9:00 / 16:35	AT	10.31.14 15:45 AT	N	7.25
4	10	10	10	10	40	7.54 / 7.37	7.3 / 9.4	25.2 / 24.6	12:00 / 19:00	AR	11.1.14 18:15 AR	N	7.44
5	10	10	10	10	40	7.64 / 7.42	7.0 / 9.5	24.8 / 25.7	840 / 18:00	WT	11/2/14 17:15 WT	N	7.85
6	10	10	10	10	40	7.57 / 7.49	6.9 / 9.8	24.7 / 24.9	900 / 1900	TCC	11.03.14 1715 TCC	N	7.43
7	10	10	10	10	40	7.74	7.7	24.7	N/A	N/A	11.04.14 1745 AT		7.46

Observations Key

OS = On Surface **LETH = Lethargic** **N = Normal** **CO = Caught On** **N/A = Not Applicable**
ON = On Bottom **ERR = Erratic Swimming** **FC = Flared Carapace** **F = Film** **CLDY = Cloudy**
PRE = Precipitate **UM = Undissolved Material** **PM = Particulate Matter**

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT.** **AUBURN, AL 36830** **(334) 502-3444**

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 85-46 Analyst: JE Balance #: AND #2

Date/Time in Oven: 11/4/14 17:30 Date/Time Out of Oven: 11/5/14 17:30 Oven Temp: 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	0.99005	0.99007	N/A	N/A	N/A
Control	1	0.99383	0.99704	10	0.321	0.332
	2	1.00370	1.00710	10	0.340	
	3	0.98461	0.98792	10	0.331	
	4	0.99024	0.99360	10	0.336	
62 % Effluent	1	0.99990	1.00322	10	0.332	0.373
	2	1.00509	1.00845	10	0.336	
	3	0.98999	0.99413	10	0.414	
	4	0.97090	0.97500	10	0.410	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Sylacauga

Test #: 85-46 **Age of Test Organisms:** 6-14 hrs **Ambient Laboratory Illumination**

Water Volume: 20mL **Source:** ERA **Photoperiod:** 16hrs. L; 8hrs. D

YCT Lot #: 232 1.7 g/L solids 0.13 mL fed per cup **Test Start Date:** 10.28.14 **Time:** 14:00

Algae Lot #: 231 3×10^7 cells/mL 0.13 mL algae fed/cup **Test End Date:** 11.04.14 **Time:** 12:00

CONTROL for DO, pH, and temp. readings: old water/ new water

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.61	8.6	24.9	TCC	N/A	10.28.14 1400 TCC	YSI #2	AB15 3#14	2866	773237 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.64 / 7.70	8.3 / 8.6	25.4 / 24.5	TCC	TCC	10.29.14 1300 TCC			2867		N
2	1	1	1	1	1	1	1	1	1	1	10	7.59 / 7.69	8.2 / 8.7	25.1 / 24.4	TCC	TCC	10.30.14 1300 TCC			2868		N
3	1	1	1	1	1	1	1	1	1	1	10	7.61 / 7.64	8.3 / 8.7	25.2 / 24.7	TCC	TCC	10.31.14 1400 TCC			2869		N
4	1	1	1/2	1/2	1/4	1/4	1/5	1/3	1/1	1/5	10	7.47 / 7.60	8.2 / 8.6	24.9 / 24.8	A7	A7	11.01.14 1400 A7			2871		N
5	1/2	1/3	1	1	1	1	1	1/5	1	1/9	10	7.42 / 7.63	8.1 / 8.4	24.6 / 24.6	A7	A7	11.02.14 1530 A7			2871		N
6	1	1	1/11	1/4	1/7	1/9	1/2	1	1/4	1	10	7.72 / 7.60	8.2 / 8.8	25.0 / 24.7	TCC	TCC	11.03.14 1200 TCC			2872		N
7	1/9	1/21	1/16	1/17	1/13	1/15	1/12	1/18	1/20	1/17	10	7.57 / NA	8.2 / NA	25.1 / NA	NA	NA	11.04.14 1200 TCC			NA		N
8																						
Neonates	21	24	29	23	34	28	29	36	25	31					N/A	N/A						

Observations Key

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapace F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates/female
28.0

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 85 -46 **Client:** Sylacauga

62 **% Effluent** **Sample #s: 1)** 141742 **2)** 141743 **3)** 141741

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.51	8.9	24.6	TCC	NA	10.28.14 1530 TCC	N
1	1	1	1	1	1	1	1	1	1	1	10	7.69 / 7.48	8.4 / 9.1	25.2 / 24.4	TCC	TCC	10.29.14 1430 TCC	N
2	1	1	1	1	1	1	1	1	1	1	10	7.62 / 7.51	8.4 / 9.3	25.2 / 24.6	TCC	TCC	10.30.14 1430 TCC	N
3	1	1	1	1	1	1	1	1	1	1	10	7.68 / 7.64	8.3 / 9.5	25.2 / 24.7	TCC	TCC	10.31.14 1530 TCC	N
4	1/4	1/2	1/3	1/9	1/7	1/6	1/7	1/8	1/7	1/8	10	7.72 / 7.51	8.4 / 9.4	24.5 / 24.6	a7	a7	11.01.14 1530 a7	N
5	1	1	1	1	1	1	1	1	1	1	10	7.81 / 7.42	8.4 / 9.5	24.6 / 25.7	a7	a7	11.02.14 1700 a7	N
6	1/13	1/4	1/16	1/6	1/17	1/14	1/16	1/17	1/13	1/11	10	7.66 / 7.49	8.4 / 9.8	25.1 / 24.9	TCC	TCC	11.03.14 1330 TCC	N
7	1/16	1/24	1/19	1/21	1/21	1/14	1/22	1/18	1/15	1/16	10	7.68 / NA	8.3 / NA	25.2 / NA	NA	NA	11.04.14 1330 TCC	N
8												/	/	/				
# Neonates	33	30	38	46	45	34	45	43	35	35					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
38.4

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Sylacauga

Sample	Collection Date/ Time	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1		10.27.14 13:30	Eh	AB153 #14	7.35	10-27-13 13:30	0.02
#2		10.29.14 1600	TCC		7.31	10.29.14 1605	0.00
#3		10.31.14 1600	TCC		7.32	10.31.14 1605	0.02

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0020001 DSN: 001 COUNTY: Talladega
Permittee: Sylacauga Utilities Board
Facility Name: J. Earl Ham WWTP
Agent Submitting Report:
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Ct, Auburn, AL 36830
Months To Test: Yearly
This Report for Toxicity Test(s) Required for the Month of: Oct
Scheduled Test(s): Yes X No Accelerated Test(s): Yes No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: ____ Short-term Chronic Definitive: X

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	10/13/15 13:00	10/20/15 14:00	Yes	10/13/15 14:00	10/20/15 12:00	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	62%	PASS	N/A	PASS									
C.d.	62%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l		Cond uS
1	N/A	N/A	<0.100	7.54	108	175	<0.06		651
2	N/A	N/A	<0.100	7.44	104	173	<0.06		662
3	N/A	N/A	<0.100	7.39	108	169	<0.06		652

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) _____ MGD (2) _____ MGD (3) _____ MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: Gerry Walker DATE: 11-16-15

FACILITY NAME: Sylacauga WWTP **NPDES #:** AL0020001 **DSN:** 001 **DATE:** 10/13/15

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Shirtee Creek

Design Flow: 4.8 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	10/11/15 0845 - 10/12/15 0745	3.1	10/13/15 - 10/14/15
2	10/13/15 0740 - 10/14/15 0640	2.8	10/15/15 - 10/16/15
3	10/15/15 0745 - 10/16/15 0645	5.0	10/17/15 - 10/21/15

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	10/08/15	10/13/15	100	60	7.57	341 @ 25
MHRW	10/09/15	10/14/15	100	60	7.53	334 @ 25
MHRW	10/13/15	10/16/15	100	60	7.46	331 @ 25
MHRW	10/13/15	10/17/15	100	60	7.52	368 @ 25
MHRW	10/15/15	10/19/15	100	60	7.55	333 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 hr	Aquatic Bioassay Supply	62					
C.d.	5-13 hr	ERA	62					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.5 - 25.3	7.0 -10.0	7.32 -7.75	75
C.d.	24.5 - 25.4	8.0 -10.0	7.42 -7.82	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.130 mL Suspension Containing 1.70 mg/L TS Daily.

Algae: Fed 0.130 mL Suspension Containing 3×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Sylcauga WWTP NPDES #: AL0020001 DSN: 001 DATE: 10/13/15

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	10/20/15-10/27/15	MHRW	0	2.0	4.0	6.0	8.0	10.0
C.d.	10/20/15-10/27/15	MHRW	0	0.5	1.0	1.5	2.0	2.5

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	2.0	2.0 - 4.0	20
P.p.	Growth	2.0	2.0 - 4.0	20
C.d.	Survival	1.0	0.5 - 1.5	20
C.d.	Reproduction	0.5	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ NO X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT : 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Sylacauga WWTP NPDES #: AL0020001 DSN: 001 DATE: 10/13/15

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL: 24.9 EFFLUENT: 24.5
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT: 24h 100 48h 100 7day 88
NO MORTALITY STATISTICAL ANALYSIS NECESSARY:
Normally Distributed: Yes X No
Test Statistic: 0.89 Critical Value: 0.749 (Parametric)
Equal Variance: ___ Unequal Variance: No Variance in Control
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: 14 #Reps.: 4 Critical Rank Sum: 11 (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ NO X
CONTROL: 0.346 mg EFFLUENT: 0.363 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: _____ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1015

			Composite Sample(s)			Analytical Measurements Taken By ERA				
		G or C	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	151383-01	comp	10-11-15 / 0845	10-12-15 / 0745	350 ml / he					
Location	Effluent									
Collector	K. Remson									
Date/Time Sampled	10-12-15 / 0755									

Flow Rate (MGD) 1.370

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	HK	-01b	None	toxicity	HK

Relinquished By: Kelly A. Remson Date/Time: 10-12-15/0805 Received By: Lab Refrigerator Date/Time: 10-12-15/0805
Relinquished By: _____ Date/Time: _____ Received By: HK Date/Time: 10-12-15 1155
Relinquished By: _____ Date/Time: _____

Received at Lab By: HK Date/Time: 10-12-15 1545 Method of Transfer: ERA Arrival Temp (C): 3.1

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1015

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
comp	350 ml / hr	10-13-15 / 0740	10-14-15 / 0640					

Sample No.	151382-01
Location	Effluent
Collector	K. Remson
Date/Time Sampled	10-14-15/0745

Flow Rate (MGD) 1.623

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	~	-01b	None	toxicity	~

Relinquished By: Kelly A. Remson Date/Time: 10-14-15/0750 Received By: Lab Refrigerator Date/Time: 10-14-15/0750
Relinquished By: _____ Date/Time: _____ Received By: ~ Date/Time: 10.14.15 1000
Relinquished By: _____ Date/Time: _____

Received at Lab By: ~ Date/Time: 10.14.15 1340 Method of Transfer: ERA Arrival Temp (C): 2.8

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Sylacauga WWTP
Project: 69-1015

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	151384-01	comp	350 ml / hr	10-15-15 / 0745	10-16-15 / 0645					
Location	Effluent									
Collector	10-16-15 / 0810									
Date/Time Sampled	K. Remson									

Flow Rate (MGD) 1.578

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness		-01b	None	toxicity	

Relinquished By: Kelly A. Remson Date/Time: 10-16-15/0815 Received By: Lab Refrigerator Date/Time: 10-16-15/0815
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: 10-16-15 1110
Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 10-16-15 1430 Method of Transfer: ERA Arrival Temp (C): 5.3

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Sylacauga

Test #: 85-47 **Age of Test Organisms:** 24-48 hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** ABS 711

Test Start Date: 10.13.15 **Time:** 14:00 **Brine Shrimp Lot #:** 24

Test End Date: 10.20.15 **Time:** 12:00 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (°C)	10.13.15 AR Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.75	8.2	24.5	08:00 / 15:15	N/A	10.13.15 14:00 at	YSI2 #2	AB153 #18	3075	773237 #1	N
1	10	10	10	10	40	7.49 / 7.72	7.5 / 8.5	25.0 / 24.6	09:30 / 16:15	at	10.14.15 15:00 at	|	|	3076	|	N
2	10	10	10	10	40	7.46 / 7.69	/ 8.5	25.0 / 24.5	0900 / 1715	TR	10.15.15 1600 TR	|	|	3076	|	N
3	10	10	10	10	40	7.32 / 7.59	7.3 / 8.7	25.1 / 24.6	10:00 / 15:10	at	10.16.15 14:00 at	|	|	3077	|	N
4	10	10	10	10	40	7.35 / 7.72	7.2 / 8.6	25.2 / 24.6	12:00 / 16:30	at	10.17.15 14:15 at	|	|	3078	|	P
5	10	10	10	10	40	7.39 / 7.69	7.4 / 8.5	25.1 / 24.6	12:00 / 17:30	at	10.18.15 16:10 at	|	|	3078	|	N
6	10	10	10	10	40	7.62 / 7.76	7.7 / 8.8	25.0 / 24.7	09:00 / 14:15	at	10.19.15 13:00 at	|	|	3079	|	N
7	10	10	10	10	40	7.39	7.5	25.1	N/A	N/A	10.20.15 12:00 at	|	|	N/A	|	N

Observations Key

OS = On Surface	LETH = Lethargic	N = Normal	CO = Caught On	N/A = Not Applicable
ON = On Bottom	ERR = Erratic Swimming	FC = Flared Carapace	F = Film	CLDY = Cloudy
PRE = Precipitate	UM = Undissolved Material		PM = Particulate Matter	

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 85-47 Client: Sylacauga - OF13

62 % Effluent Sample #s: 1) 151383 2) 151382 3) 151384

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.58	9.2	24.9	~~09:00~~ 10.13.15 15:15 AR	N/A	10-13-15 14:30 AR	N	7.74
1	10	10	10	10	40	7.46 / 7.56	7.3 / 9.3	24.9 / 24.7	09:30 / 16:15	af	10.14.15 15:30 af	N	7.79
2	10	10	10	10	40	7.72 / 7.48	7.7 / 8.8	25.0 / 24.6	0900 / 1715	JM	10.15.15 1630 JM	N	7.50
3	10	10	10	10	40	7.50 / 7.42	7.2 / 9.7	25.0 / 24.8	10:00 / 15:10	af	10.16.15 14:25 af	N	7.55
4	10	10	10	10	40	7.45 / 7.44	7.0 / 9.4	25.3 / 24.5	12:00 / 16:30	af	10.17.15 14:40 af	N	7.48
5	10	10	10	10	40	7.49 / 7.47	7.5 / 9.4	25.1 / 24.6	12:00 / 17:30	af	10.18.15 16:35 af	N	7.51
6	10	9	7	10	36	7.54 / 7.52	7.5 / 10.0	25.2 / 24.6	09:00 / 14:15	af	10.19.15 13:25 af	N	7.62
7	10	8	7	10	35	7.52	7.2	25.1	N/A	N/A	10.20.15 12:25 af	N	7.71

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 85-47 **Analyst:** GT & JF **Balance #:** AWD #2

Date/Time in Oven: 10/20/15 13:10 **Date/Time Out of Oven:** 10/21/15 13:10 **Oven Temp:** 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	1.01208	1.01208	N/A	N/A	N/A
Control	1	1.00474	1.00888	10	0.414	0.346
	2	0.99516	0.99838	10	0.322	
	3	0.98644	0.98989	10	0.345	
	4	0.99389	0.99692	10	0.303	
62 % Effluent	1	1.00507	1.00877	10	0.370	0.363
	2	1.00901	1.01240	8	0.339	
	3	1.01295	1.01668	7	0.373	
	4	0.99288	0.99699	10	0.371	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Sylacauga

est #: 85-47 **Age of Test Organisms:** 5-13 hrs **Ambient Laboratory Illumination**

Vater Volume: **20mL** **Source:** **ERA** **Photoperiod:** **16hrs. L; 8hrs. D**

CT Lot #: 246 1.70 **g/L solids** 0.13 **mL fed per cup** **Test Start Date:** 10.13.15 **Time:** 13:00

lgae Lot #: 244 3x10⁷ **cells/mL** 0.13 **mL algae fed/cup** **Test End Date:** 10.20.15 **Time:** 14:00

ONTROL

for DO, pH, and temp. readings: old water/ new water

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

est ay	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Wate r Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHR W Lot #	Thermo meter ID	Obs
art	1	1	1	1	1	1	1	1	1	1	10	7.75	8.2	24.5	af	N/A	10.13.15 13:00 af	Y812 #2	AB153 #15	3075	773231 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.74/7.72	8.2/8.5	25.2/24.6	af	af	10.14.15 14:00 af			3076		N
2	1	1	1	1	1	1	1	1	1	1	10	7.55/7.69	8.1/8.5	25.3/24.5	Rh	Rh	10.15.15 1300 [illegible]			3076		N
3	1	1	1	1	1	1	1	1	1	1	10	7.32/7.59	8.1/8.7	25.3/24.6	af	af	10.16.15 12:00 af			3077		N
4	1/1	1/3	1/2	1/5	1/4	1/4	1/6	1/3	1/3	1/4	10	7.62/7.72	8.0/8.6	25.2/24.6	af	af	10.17.15 13:00 af			3078		N
5	1	1	1	1	1	1	1	1	1	1	10	7.56/7.69	8.0/8.5	25.3/24.6	af	af	10.18.15 15:00			3078		N
6	1/5	1/10	1/10	1/8	1/8	1/3	1/9	1/6	1/9	1/9	10	7.65/7.76	8.2/8.8	25.3/24.7	af	af	10.19.15 11:00 af			3079		N
7	1/12	1/10	1/16	1/24	1/14	1/15	1/10	1/12	1/11	1/13	10	7.57/N/A	8.3/N/A	25.2/N/A	N/A	N/A	10.20.15 14:00 af	↓	↓	N/A	↓	N
8																						
on es	18	23	28	37	26	22	25	21	23	26					N/A	N/A						

Average # neonates/female
24.9

bservations Key

S = On Surface **LETH = Lethargic** **N = Normal** **CO = Caught On** **N/A = Not Applicable**
N = On Bottom **ERR = Erratic Swimming** **FC = Flared Carapace** **F = Film** **CLDY = Cloudy**
RE = Precipitate **UM = Undissolved Material** **PM = Particulate Matter**

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 85 -47 **Client:** Sylacauga OF13

62 **% Effluent** **Sample #s: 1)** 151383 **2)** 151382 **3)** 151384

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.58	9.2	24.9	af	NA	10.13.15 13:30 af	N
1	1	1	1	1	1	1	1	1	1	1	10	7.91 / 7.56	8.3 / 9.3	25.2 / 24.7	af	af	10.14.15 14:30 af	N
2	1	1	1	1	1	1	1	1	1	1	10	7.75 / 7.48	8.0 / 8.8	25.1 / 24.6	Th	Th	10.15.15 1325 Th	N
3	1	1	1	1	1	1	1	1	1	1	10	7.78 / 7.42	8.2 / 9.7	25.3 / 24.8	af	af	10.16.15 12:25 af	N
4	1/3	1/3	1/4	1/5	1/2	1/4	1/5	1/4	1/2	1/4	10	7.79 / 7.44	8.1 / 9.4	25.3 / 24.5	af	af	10.17.15 13:25 af	N
5	1	1	1	1	1	1	1	1	1	1	10	7.77 / 7.47	8.2 / 9.4	25.4 / 24.6	af	af	10.18.15 15:25 af	N
6	1/10	1/6	1/8	1/8	1/9	1/11	1/5	1/8	1/9	1/8	10	7.73 / 7.52	8.3 / 10.0	25.3 / 24.6	af	af	10.19.15 11:25 af	N
7	1/14	1/15	1/8	1/11	1/14	1/12	1/12	1/16	1/13	1/12	10	7.82 / N/A	8.3 / N/A	25.3 / N/A	N/A	N/A	10.20.15 14:25 af	N
8												/	/	/				
# Neonates	27	24	20	24	25	27	22	28	24	24					N/A	N/A		

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapac
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

Average # neonates per female
24.5

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Larval Fish Growth and Survival Test-7 Day Survival

Start Date:	10/13/2015	Test ID:	85-47fh	Sample ID:	EFFLUENT
End Date:		Lab ID:	ERA	Sample Type:	EFF1-POTW
Sample Date:		Protocol:	EPAF 94-EPA/600/4-91/002	Test Species:	PP-Pimephales promelas
Comments:	Stats conducted by JF				

Conc-%	1	2	3	4
control	1.0000	1.0000	1.0000	1.0000
eff	1.0000	0.8000	0.7000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	
control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4			
eff	0.8750	0.8750	1.2306	0.9912	1.4120	17.454	4	14.00	11.00	0.20868

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89103	0.749	-0.2509	0.08683
Equality of variance cannot be confirmed				
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs control				

Toxicity Bench Sheet

Client: Sylacauga

Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1	10.12.15 17:20	AT	AB153 #18	7.54	10.12.15 17:20	0.02
#2	10.14.15 1600	〃	〃	7.44	10.14.15 1600	0.00
#3	10.16.15 1500	〃	〃	7.39	10.15.15 1500	0.03

Best Management Practices

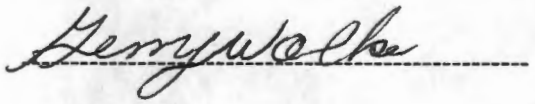
J.E. Ham WWTP

610 Old Sylacauga HWY

The Utilities Board of the City of Sylacauga operates the J.E. Ham WWTP located on 610 Old Sylacauga Hwy. The facility is operated utilizing best management practices as demonstrated below. (See spill prevention page for detailed guidelines)

1. The facility is properly maintained and the maintenance is documented on the plant computer for inspection.
2. The chief operator is responsible for implementing our BMP.
3. An auxiliary generator is available at the facility. It is tested weekly and a service agreement is maintained with Cummins to assure reliability.
4. The Board has adequate funds to maintain the facility. This is generated from customer revenues, SRF and Bond issues. The facility is in good condition.
5. All operators are certified Grade appropriate. Training is funded by the Utilities Board of the City of Sylacauga.
6. The facility has a lab that has necessary equipment to run the required daily test.
7. Spill prevention measures are in place at the facility.
    - The facility has SCADA that monitors all major equipment including Cl 2 monitoring.
    - The facility operates below Risk Management Thresholds for CL2 and Sulfur Dioxide to minimize large release threats.
    - SCADA monitors and alarms if any wet well levels start to rise.
    - Operators check all operating equipment daily and record on a log sheet.
    - Since there are no bulk chemicals stored on the premises the only threat would from sludge handling loss.
    - Operators have been trained to clean up any spill that occurs during sludge handling.

- The facility has a remote alarm on the operations building and a fence that covers all surrounding borders for added security.

Signature of Plant Manager 

Storm Water Pollution Prevention Plan
J. E. Ham Waste Water Treatment Plant

Plant Information

Name – J. Earl Ham Wastewater Plant
NPDES – AL0020001
Address - 610 Old Sylacauga Highway
Sylacauga, Al 35150

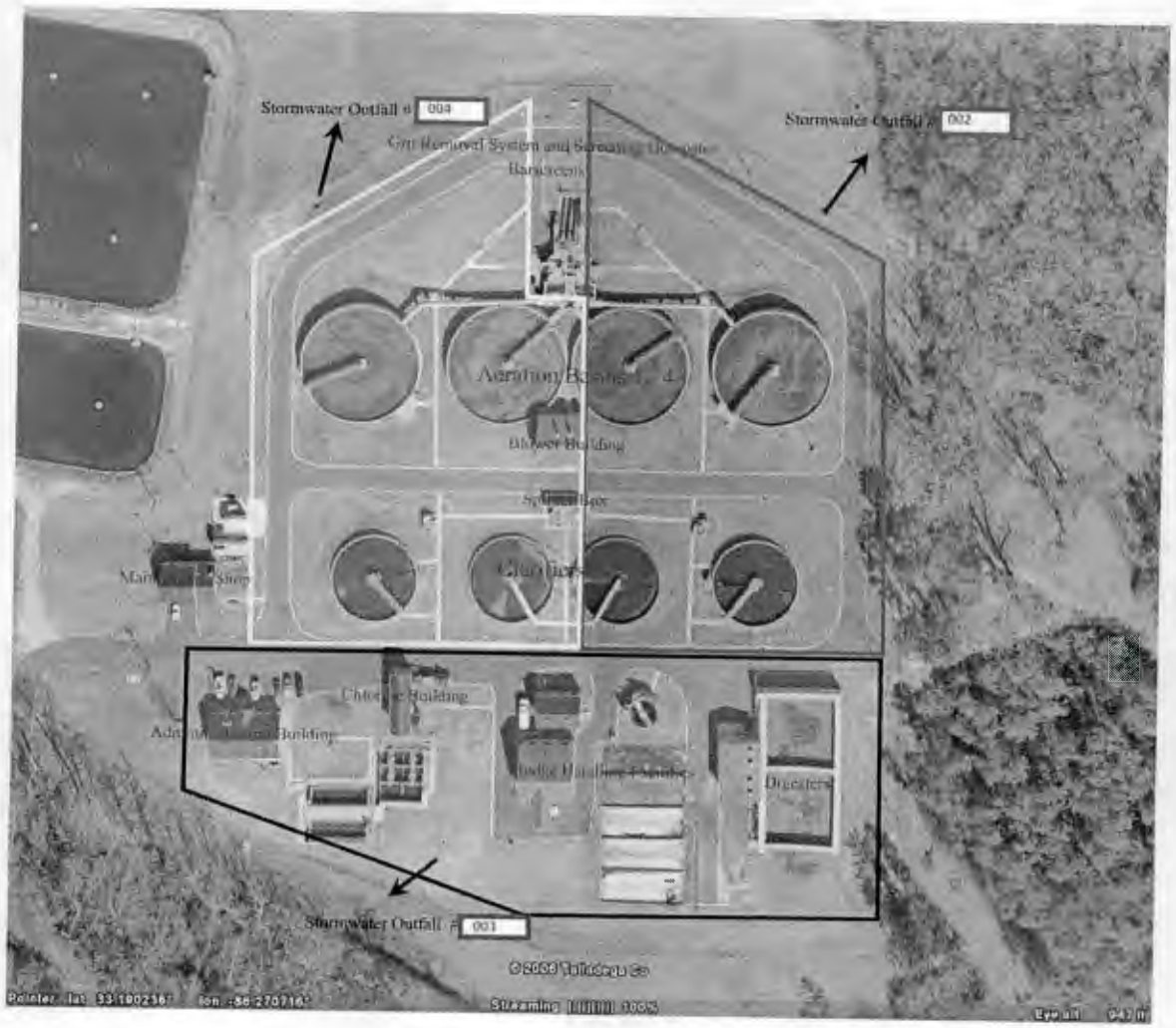
Responsible Official - Gerry Walker (Plant Manager) 256-245-3721
BMP Committee- Consist of all operators

Receiving Stream – Shirtee Creek
Storm Water Test- As required by permit we sample storm water runoff once a year at all three sample points and report with one of our monthly DMR's.

Exposed Significant Materials – There are no exposed significant materials. The drying beds are not used and all Bio solids are removed to an ADEM approved sludge disposal site which complies with EPA's 503 regulations. Paints and solvents used for maintenance are stored in the shop which drains back to the raw sewage pump station.

List of Significant Spills and Leaks - There have been no significant leaks or spills during the last three years

Site Drainage Map



Potential Pollution Sources	Risk Level High – Medium - Low	Measures To Prevent A Spill
1. Bar Screen – If the bar screens should fail, sewerage could overflow the channel.	Medium	The Bar Screens shall be inspected daily. Should a bar screen fail the SCADA system will alert the operator on call by telephone.
2. Screening Dumpster	Low	The area drains back to the raw pump station
3. Grit Dumpster	Low	The area drains back to the raw pump station
4. Grit Basin – Catastrophic failure	Low	This is highly unlikely. The basins will be inspected monthly for cracks.
5. Inlets to Aeration Basin - Catastrophic failure	Low	This is highly unlikely scenario. The inlet structures will be inspected daily.
6. Blower Building – Potential oil leakage from the blowers.	Low	The blower building is inspected daily and oil leakage is controlled by an absorbent.
7. Splitter Box – Catastrophic failure	Low	This is highly unlikely. The splitter will be inspected monthly for cracks.
8. Clarifiers 1 – 4 Catastrophic failure	Low	This is highly unlikely. The basins will be inspected monthly for cracks.
9. Shop – The shop contains numerous oils and greases for the plant maintenance.	Low	This is highly unlikely. The building drains back to the sewer system.
10. Chlorine and SO2 Building – Potential Cl2 and S02 Leaks	Medium	This is highly unlikely. The building drains flow back to the head of the plant. Gas leaks are controlled by the facility RMP
11. Belt press building – This building has Bio solids and polymers. The truck loading site is monitored and cleaned daily.	Low	This is highly unlikely. The building drains flow back to the head of the plant. Dewater sludge that falls of the truck is cleaned up daily.
12. Digesters – Catastrophic failure.	Low	This is highly unlikely. The basins will be inspected monthly for cracks.

Inventory Of Exposed Materials		**Completed By** Gerry Walker **Title** Plant Manager **Date** 2-19-18	
List all materials used, stored or produced on site that may potentially be exposed to precipitation			
Materials	Method and Location of on site Storage or Disposal (i.e. Pile, Drum)	Describe, including location, of best management practices used to minimize contact with storm water run off.	Description of any treatment the storm water receives.
None			

List of Significant spills and leaks	Completed By Gerry Walker Title Plant Manager Date 4-19-18

Record below all significant spills or leaks of toxic or hazardous pollutants that have accured at the facility in the three years prior to the effective date of the permit.

Definitions: Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities

1st Year Prior 2017	Spill	Leak	Location as indicated on a site map	Description				Response Procedure		
				Type of material	Quality	Source if Known	Reason	Amount of material recovered	Material No Longer Exposed To Storm Water	Previous Measures Taken
No Spills										
2nd Year prior 2016										
No Spills										
3rd year prior 2015										
No Spills										

SEWER USE REGULATIONS

OF

THE UTILITIES BOARD
OF
THE CITY OF SYLACAUGA

Table Of Contents

SECTION TITLE

SEWER USE REGULATIONS

OF

The Utilities Board

OF

The City of Sylacauga, ALABAMA

Regulations to provide for the operation, maintenance and management of the sewerage system (wastewater collection and treatment system) (POTW) of the Utilities Board of the City of Sylacauga, Talladega county, Alabama and to regulate and control discharge of wastewaters into the sewerage system of the Utilities Board of the City of Sylacauga, Alabama.

The Utilities Board of the City of Sylacauga, Alabama does hereby adopt the following sewer use regulations.

SECTION 1 GENERAL PROVISIONS

Section 1.01

These Regulations are adopted for the purposes of regulating and controlling the discharge of wastewaters into the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama to set forth uniform requirements for Users of the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama and to enable the Utilities Board Of The City of Sylacauga, Alabama to comply with all applicable State and Federal laws required by the Clean Water Act of 1977(P.L. 95—217) as amended, the General Pretreatment Regulations (40 'CFR Part 403) and the Alabama Water Pollution Control Act (Code of Alabama 1975, Section 22-22-1 et seq.). These Regulations provide for the regulation of Users of the Sewerage System through the execution of contracts with certain non-domestic Users and through enforcement of general requirements for all Users, authorize monitoring and enforcement activities, require User reporting, assure that existing customers' capacities will not be preempted and provide for the setting of fees for the equitable distribution of costs resulting from the program established herein. These Regulations shall apply to all persons who are Users of the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama. Except as otherwise provided herein, the Utilities Board of the City of Sylacauga, Alabama shall administer, implement and enforce the provisions of these Regulations. The objectives of these Regulations are:

1.01.01

To prevent the introduction of pollutants into the Sewerage System which will interfere with the operation of the Sewerage System or contaminate the resulting sludge.

1.01.02

To prevent the introduction of pollutants into the Sewerage System which will pass through the Sewerage System, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the operation of the Sewerage System.

1.01.03

To improve the opportunity to recycle and reclaim waste-waters and sludges from the Wastewater Treatment Plants.

1.01.04
To provide for equitable distribution of the costs attributable to the construction, operation and maintenance of the Sewerage System.

1.01.05
To define areas of responsibility and procedures for joint management of the Alabama. Industrial Wastewater Pretreatment Program as it applies to the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama by the Alabama Department of Environmental Management and the Utilities Board of the City of Sylacauga, Alabama.

Section 1.02

The following abbreviations shall have the designated meanings:

1.02.01	ADEM	Alabama Dept of Environmental Management
1.02.02	BOD	Biochemical Oxygen Demand
1.02.03	CFR	Code Of Federal Regulations
1.02.04	COD-	Chemical Oxygen Demand
1.02.05	EPA-	U.S. Environmental Protection Agency
1.02.06	L-	Liter
1.02.07	mg-	Milligrams
1.02.08	mg/l-	Milligrams per Liter
1.02.09	NPDES	National Pollutant Discharge Elimination System
1.02.10	O&M	Operation and Maintenance
1.02.11	OSHA	Occupational Safety and Health Administration
1.02.12	P.L	Public Law
1.02.13	POTW	Publicly Owned Treatment Works
1.02.14	SWDA	(The) Solid Waste Disposal Act
1.02.15	SIU	Significant Industrial User
1.02.16	SID Permit	State Indirect Discharge Permit
1.02.17	SS	Suspended Solids
1.02.18	USC	United States Code

Section 1.03
The following words, terms and phrases, wherever used in these Regulations, shall have the meanings respectively ascribed to them in this Section unless the context plainly indicates otherwise or that a more restricted or extended meaning is intended.

1.03.01
Accidental Discharge Any release, of wastewater which, for any reason, fails to comply with any prohibition or limitation in these Regulations.

1.03.02
Act or "the Act" The Federal Water Pollution Control Act, (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L.95-217) and as further amended, including, without limitation, any amendment enacted after the date of adoption of these Regulations (33 USC Paragraph 1251 et.seq.).

1.03.03
Approval Authority The Director of the Alabama Department of Environmental Management (ADEM).

1.03.04
Authorized Representative of Industrial User An authorized representative of an Industrial User shall be:

1.03.04.01
A principal executive officer of at least the level of vice-president if the Industrial User is a corporation.

1.03.04.02
A general partner, manager, or proprietor if the Industrial User is a partnership limited liability company, or proprietorship, respectively.

1.03.04.03
A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

1.03.05
Biochemical Oxygen Demand or BOD The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures in five (5) days at 20° C (68° F) expressed in terms of weight and volume (milligrams per liter).

1.03.06
Board - The Utilities Board of the City of Sylacauga, Alabama.

1.03.07
Building Sewer or House Connection - The connecting pipe from a building to the sanitary sewer.

1.03.08
Categorical Standard National - Categorical Pretreatment Standard or Pretreatment Standard.

1.03.09
City - The City of Sylacauga, Alabama.

1.03.10
Color - Considered to be the true color of the light transmitted by a waste solution after removing suspended material including pseudocolloidal particles.

1.03.11
Combined Sewer - A sewer receiving both surface runoff and wastewater. Combined sewers are not permitted by ADEM policy.

1.03.12
Constituents -The specific compounds and components, which comprise the wastewater.

1.03.13
Control Authority - The approval authority defined hereinabove. The term Control Authority shall also apply to the Utilities Board of the City of Sylacauga, Alabama as defined hereinafter as per Memorandum of Agreement between the Alabama Department of Environmental Management and the Utilities Board of the City of Sylacauga, Alabama.

1.03.14
Cooling Water -The water discharged from any use such as air conditioning, cooling or

refrigeration, or to which the only pollutant added is heat.

1.03.15
Direct Discharge - The discharge of treated or untreated wastewater directly to the waters of the State of Alabama.

1.03.16
Domestic Wastewater - All liquid and waterborne pollutants,
exclusive of unpolluted water as defined in Section 1.03.60, or wastewater or wastes from processes or operations of Industrial Users as defined in Section 1.03.22.

1.03.17
Environmental Protection Agency or EPA - The U. S. Environmental Protection Agency or, where appropriate, the term may also be used as a designation for the Administrator or other duly authorized official of said Agency.

1.03.18
Flammable - Shall be as defined in Section 5.03.01.

1.03.19
Grab Sample - A sample that is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

1.03.20
Holding Tank Waste - Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks, vacuum-pump tank trucks and septic tank haulers.

1.03.21
Indirect Discharge - The discharge or the introduction of non-domestic pollutants from any source regulated under Section 307(b) or (c) of the Act into the Sewerage System (including holding tank waste discharged into the Sewerage System).

1.03.22
Industrial User - Any User of the Sewerage System who is a source of Indirect Discharge, which does not constitute a "discharge of pollutants" under regulations issued pursuant to Section 402 of the Act. (A user who discharges Industrial Waste into the Sewerage System.)

1.03.23
Industrial Waste - The liquid or other wastes resulting from any process of industry, manufacture, trade or business or from the development of natural resources.

1.03.24
Infiltration - The water entering sewers and building sewer connections from the soil through defective joints, broken or cracked pipe, improper connections, manhole walls, etc. infiltration does not include, and is distinguished from inflow.

1.03.25
Inflow - The water discharged into sewer lines from such sources as roof leaders, cellar and yard area drains, foundation drains, commercial and industrial discharges of Unpolluted Wastewater as defined in Section 1.03:60, drains from springs and swampy areas, etc. It does not include and is distinguished from infiltration.

1.03.26
Interference - The inhibition or disruption of the wastewater treatment processes or

operations, or acts or discharges which may cause damage to any portion of the Sewerage System and/or which contribute to a violation of any requirement of the Sylacauga NPDES Permits. The term includes interference with sewage sludge use or disposal in accordance with Section 405 of the Act or any criteria, guidelines or regulations developed pursuant to the SWDA (P.L. 89-272 as Amended), the Clean Air Act, (P.L. 91-604 as Amended) or more stringent State criteria (including those contained in any State sludge management plan prepared pursuant to Title IV of the SWDA) applicable to the method of disposal or use employed by the Sewerage System.

1.03.27
Manager - The chief administrative officer of the Utilities Board of the City of Sylacauga, Alabama who is charged with administrative control of all operations of the Board and is responsible directly to the Board. As used herein, it may also include any other Board employee delegated to act for the Board by the Manager or by the Board.

1.03.28
National Categorical Pretreatment Standard, Categorical Pre-treatment Standard or Pretreatment Standard - Any regulation containing pollutant discharge limits promulgated by EPA in accordance with Sections 307(b) and (c) of the Act which apply to a specific category of Industrial Users.

1.03.29
National Pollutant Discharge Elimination System or NPDES Permit - A permit to discharge wastewater issued pursuant to Section 402 of the Act.

1.03.30
New Source - Any source, the construction of which is commenced after the adoption of these Regulations or the publication of proposed regulations prescribing a Section 307(c) Categorical Pretreatment Standard which will be applicable to such source, if such Standard is thereafter promulgated within 120 days of proposal in the Federal Register. Where the Standard is promulgated later than 120 days after proposal, a New Source means any source, the construction, of which is commenced after the date of promulgation of the Standard.

1.03.31
Normal Waste - A waste having average concentrations of 300 milligrams per liter of BOD, or less, and 300 milligrams per liter of suspended solids, or less, as determined by samples taken before entering the Sewerage System.

1.03.32
Person - Any individual, firm company, association, corporation, governmental agency, board, commission or municipal corporation other than the Utilities' Board of the City of Sylacauga, Alabama.

1.03.33
pH - The logarithm of the reciprocal of the concentration of hydrogen ions in moles per liter of solution. Stabilized ph is that determined after a sample of waste has been subjected to natural aeration.

1.03.34
Pollution - The man-made or man-induced alteration of the chemical, physical, biological and/or radiological integrity of water.

1.03.35
Pollutant - Any solid waste, chemical waste, biological material, radioactive material,

thermal waste or industrial, municipal or agricultural waste discharged into water.

1.03.36
Pretreatment - The reduction of the amounts of pollutants, the elimination of pollutants, the alteration of the nature of pollutants, the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to discharging or otherwise introducing such pollutants into the Sewerage System. The reduction or alteration can be obtained by physical, chemical or biological processes, process changes or other means, except as prohibited by 40 CFR Section 403.6(d).

1.03.37
Pretreatment Requirement - Any substantive or procedural requirement related to pretreatment, other than a National Categorical Pretreatment Standard, imposed on an Industrial User.

1.03.38
Private Wastewater Disposal System - Any facilities for wastewater treatment and disposal not maintained and operated by the Utilities Board of the City of Sylacauga, Alabama.

1.03.39
Properly Shredded Garbage - The organic wastes resulting from the preparation, cooking and dispensing of foods that have been shredded to such degree that all particles will be carried freely under flow conditions normally prevailing in public sewers with no particle being greater than ½ inch in any dimension.

1.03.40
Public Sewer - A sewer in which all owners of abutting properties shall have equal rights and which is controlled by a governmental agency or public utility.

1.03.41
Publicly Owned Treatment Works or POTW - Treatment works as defined by Section 212 of the Act which are owned in this instance by the Utilities Board of the City of Sylacauga, Alabama. This definition includes the Wastewater Treatment Plants and any sewers that convey wastewater to the Waste-water Treatment Plants (Sewerage System).

1.03.42
Receiving Stream - That body of water, stream or watercourse receiving the discharge from a Wastewater Treatment Plant or that body of water, stream or watercourse formed by the effluent from a Wastewater Treatment Plant.

1.03.43
Sanitary Sewage - Sewage excluding process wastes from Industrial Users.

1.03.44
Sanitary Sewer A Public Sewer controlled by a governmental agency or public utility that carries liquid and waterborne wastes from residences, commercial buildings, industrial plants and institutions, together with minor quantities of ground and surface waters that are not intentionally admitted.

1.03.45
Sewage - A combination of waterborne wastes from residences and Industrial Users (Wastewater).

1.03.46
Sewer - A pipe or conduit for carrying wastewater.

1.03.47
Sewerage System - All facilities for collecting, pumping, treating and disposing of wastewater (POTW).

1.03.48
Shall - "Shall" is mandatory; "may" is permissible.

1.03.49
Significant Industrial User or SIU - Any Industrial User of the Sylacauga Sewerage System who:

1.03.49.01
Has a discharge flow of 25,000 gallons or more per average workday.

1.03.49.02
Has a discharge, which is greater than five percent (5%) of the hydraulic flow or organic design capacity of the Sewerage System serving the Industrial User.

1.03.49.03
Has a discharge, which contains toxic pollutants or Priority Pollutants as defined pursuant to Section 307 of the Act or Alabama Statutes and Rules and Regulations.

1.03.49.04
Is found by the Utilities Board of The City of Sylacauga, Alabama, the Approval Authority or EPA to have significant impact, either singly or in combination with other contributing industries, on the Sewerage System, the quality of sludge, the System's effluent quality or air emissions generated by the Sewerage System.

1.03.50
Slug - Any discharge of water or wastewater for any duration during which the rate of flow or concentration of any constituent increases to such magnitude so as to adversely affect the operation of the Sewerage System or the ability of the Board's Wastewater Treatment Plants to meet applicable water quality objectives.

1.03.51
Standard Industrial Classification or SIC - A classification of an industry based on its product or service pursuant to the Standard Industrial Classification Manual, 1972, Office of Management and Budget of the Federal Government, as amended.

1.03.52
Standard Methods - The analytical procedures set forth in the latest edition of "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association or "EPA Methods for Chemical Analysis of Water and Wastes" as per 40 CFR Part 136 and amendments thereto.

1.03.53
State - State of Alabama.

1.03.54
Storm Sewer or Storm Drain - A sewer which carries storm and surface waters and drainage but which excludes sanitary sewage and polluted industrial wastes.

1.03.55
Storm Water - Any flow occurring during or following any form of natural precipitation and resulting there from.

1.03.56
Strength of Waste - The concentration of pollutants or substances contained in a liquid waste.

1.03.57
Suspended Solids - The total solid matter that either floats on the surface of or is suspended in water or liquid waste and which is removable by laboratory filtration.

1.03.58
Toxic Pollutant - Any Pollutant or combination of Pollutants listed as toxic in regulations promulgated by EPA under provisions of Section 307(a) of the Act or by the State of Alabama.

1.03.59
Twenty-Four Hour, Flow Proportional Composite Sample or Composite Sample - A sample consisting of at least eight (8) portions collected during a twenty-four hour period or the total period of waste flow if less than twenty-four hours and in which the sample portions are collected proportionate to the flow and then proportionately combined into a single sample. Alternate sampling requirements may be established in a User's SID Permit and/or by the Control Authority.

1.03.60
Unpolluted Wastewater - Any wastewater, which is substantially free of pollutants and is discharged from the following:

1.03.60.01
Rain downspouts and drains

1.03.60.02
Footing Drains

1.03.60.03
Storm and surface water drains

1.03.60.04
Cooling water systems unpolluted wastewater shall contain, by definition, none of the following:

1.03.60.05
BOD in excess of 10mg/l

1.03.60.06
Suspended solids in excess of 10 mg/l

1.03.60.07
Free or emulsified grease or oils

1.03.60.08
Acid or alkalines

1.03.60.09
Phenols or other substances imparting taste or odor to receiving waters

1.03.60.10
Toxic or poisonous substances.

1.03.60.11
Noxious or odorous gases.

1.03.60.12
Any wastewater with a temperature which exceeds 60°C (140°F) at its introduction into a Storm Sewer or which exceeds 40°C (104°F) at its introduction into a receiving stream.

1.03.61
User - Any person, who contributes, causes or permits the contribution of wastewater into the sewage system.

1.03.62
Utilities Board or Board – The Utilities Board City of Sylacauga, Alabama or, where appropriate, the term may also be used as a designation for the Manager or other duly authorized official of the Board.

1.03.63
Wastewater - Sewage.

1.03.64
Wastewater Treatment Plant(s) - The facilities of the Utilities Board of the City of Sylacauga, Alabama for treating and disposing of wastewater.

1.03.65
Watercourse - A channel in which a flow of water occurs, either continuously or intermittently.

1.03.66
Waters of the State - All bodies or accumulations of water, surface or underground, within the boundaries of the State of Alabama.

Section 1.04
Definitions include both the singular and the plural and all pronouns include both the singular and the plural and cover all genders.

SECTION 2 USE OF PUBLIC SEWERS REQUIRED

Section 2.01
In accordance with provisions of Ordinance No. 1631 of the City, it shall be unlawful for any person to discharge to any outlet other than a sanitary sewer, within the Corporate Limits of the City, any domestic or industrial wastes except where suitable treatment has been provided in accordance with subsequent provisions of these Regulations and where an appropriate NPDES Permit has been obtained from ADEM pursuant to Section 402 of the Act.

Section 2.02
The owner(s) of all houses, buildings or properties used for human occupancy, employment, recreation or other purposes, situated within the City and abutting on any street, alley or right-of-way in which there is now located or may in the future be located directly adjacent to said property a public sanitary sewer of the Board with available capacity that discharges to any of the Sylacauga Wastewater Treatment Plants, who has installed suitable toilet and other facilities therein necessary for the discharge of domestic and/or industrial wastes, is hereby required at the owner(s)expense to connect such facilities directly with the proper public sanitary sewer in accordance with provisions of Ordinance No. 1631 of the City and Section 4 of these Regulations except where a private wastewater disposal system complying with the requirements of the State, Talladega County and/or the City has been installed prior to the adoption of Ordinance No. 1631, or in the case of a Significant Industrial User to whom the Board has declined to extend service because the Board reasonably believes that the Significant Industrial User's discharge will interfere with the operation of the Board's wastewater facility or facilities, the Board's facility's or facilities' ability to meet NPDES requirements, or may directly or indirectly cause degradation of the receiving stream[wca1].

SECTION 3 PRIVATE WASTEWATER DISPOSAL

Section 3.01
Where a public sanitary sewer is not available under the provisions of Section 2.02, such toilet and other facilities necessary for the discharge of domestic and/or industrial wastes shall be connected to a private wastewater disposal system complying with the requirements of the State, Talladega County and/or the City.

Section 3.02
Holding tank wastes and septic tank wastes from private systems shall be discharged into the Sewerage System only under the following conditions:

3.02.01
No person owning vacuum-pump or septic tank trucks or other liquid waste transport trucks shall discharge directly or indirectly such wastewater into the Sewerage System unless such person shall first have applied for and received a Wastewater Haulers Discharge Permit from the Board. All applicants for Wastewater Haulers Discharge Permits shall complete such forms as required by the Board, pay appropriate fees and agree in writing to abide by the provisions of this Section and any special conditions or regulations established by the Board. The owners of such vehicles shall affix and display a permit on the side of each vehicle used for such purposes. Such permits shall be valid for a maximum period of one (1) year from date of issuance, provided that such permit shall be subject to revocation by the Board for violation of any provision of this Section or reasonable regulation established by the Board. Such permits shall be limited to the discharge of Sanitary Sewage containing no industrial waste. Pumpage from commercial grease traps is specifically prohibited from discharge into the Sewerage System. The Board shall designate the locations and times where such trucks may be discharged and may refuse to accept any truckload of waste at their absolute discretion where it appears that the waste could interfere with the effective operation of the Sewerage System.

3.02.02
No person shall discharge any other holding tank waste including industrial process wastes into the Sewerage System unless he shall have applied for and have been issued a permit by the Board. Unless otherwise allowed under the terms and conditions of the permit, a separate permit must be secured for each separate discharge. The permit shall state the specific location of discharge, the time of day the discharge is to occur, the volume of the

discharge and shall limit the wastewater constituents and characteristics of the discharge. Such User shall pay any applicable charges or fees therefore and shall comply with the conditions of the permit issued by the Board.

3.02.03
No person shall operate a dumping station for the discharge of sanitary sewage from recreation vehicles into the Sewerage System unless the User of the dumping station has first applied for and received a Recreational Vehicle Dumping Station Permit from the Board. All applicants for Recreational Vehicle Dumping Station Permits shall complete such forms as required by the Board, pay appropriate fees and agree in writing to abide by the provisions of this Section and any special conditions or regulations established by the Board. These permits shall be issued only for approved facilities designed to receive Sanitary Sewage.

Section 3.03
No statement contained in this Section shall be construed to interfere with any additional requirements that may be imposed by Federal or State agencies.

SECTION 4 BUILDING SEWERS, CONNECTIONS AND PERMITS

Section 4.01
No unauthorized person(s) shall uncover, make any connections with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Board.

Section 4.02
Sewer permits shall be divided into two classes, as follows:

4.02.01
Building Sewer Permits for residential, commercial, industrial or public facilities.

4.02.02
State Indirect Discharge (SID) Permits for Significant Industrial Users as defined in Section 1.03.49.

Section 4.03
Building Sewer Permits for all connections shall be obtained under these Regulations and in accordance with the requirements promulgated by the Board.

Section 4.04
In addition to the requirements of Section 4.03, any person who, after the effective date of these Regulations, proposes to originate the discharge of any industrial waste for the first time into the Sewerage System or who proposes to make a significant change in the character or volume of any industrial waste theretofore discharged into the Sewerage System, shall make application to ADEM through the Board for an SID Permit and obtain a permit prior to connecting to the Sewerage System or making a significant change in his contribution thereto. The applications shall be supplemented by any information, which may have been furnished by the applicant to any other governmental agency and by such other plans or other data as the Board may reasonably require for purposes of determining whether the qualifications are met as specified in Section 4.09.

Section 4.05
A significant change in the character or volume of an industrial waste, for purposes of Section 4.04, shall be deemed to be proposed if substances, compounds and elements not previously

constituting any part of a User's industrial waste are to be introduced into such waste or if the average concentration of any substance, compound or element in the waste or average volume proposed to be discharged will cause a violation of any permit limitation. In case of doubt as to whether an intended change constitutes a significant change, it shall be the responsibility of the User intending to make such a change to make the necessary application or obtain a written ruling from the Board and ADEM that an application for an SID Permit is not required.

Section 4.06

Any User who, on the effective date of these Regulations, is operating within the City and is a SIU within the meaning of Section 1.03.49 from which industrial waste is discharged into the Sewerage System (hereafter called "an existing Significant Industrial User") may continue such discharge until notified by the Board in writing that an SID Permit will be required and until an application has been submitted to and denied by the Board and ADEM in accordance with the following provisions:

4.06.01

The Board, after consultation with ADEM shall issue written notices to existing Significant Industrial Users (in such time sequence as it may determine in the light of the staff resources available to him for the processing of SID Permit applications) specifying in each such notice the time within which an existing Significant Industrial User shall file application for an SID Permit.

4.06.02

Within the specified time limit, the existing SIU shall file the required application together with any other information, as described in Section 4.04.

4.06.03

An existing SIU may continue to discharge, after complying with the requirement to file an application for an SID Permit, unless and until receipt by the applicant of a written notice specifying the reasons for denial of an SID Permit and specifying what remedial action, if any, must be taken to qualify the applicant for a Permit.

Section 4.07

Any User subject to a new National Categorical Pretreatment Standard shall apply for a new SID Permit within one hundred eighty (180) days after the promulgation of the applicable National Categorical Pretreatment Standard. Unless denied for any reason, SID Permits of Users subject to such Standards shall be issued or reissued in compliance with such Standards within the time frames prescribed by such Standards.

Section 4.08

In any case, where a final determination has been made denying an SID Permit it shall be unlawful for any person so denied an SID Permit to discharge industrial waste into the Sewerage System.

Section 4.09

An SID Permit will be issued or renewed by ADEM only when satisfactory information has been submitted to indicate that:

4.09.01

Sewerage System capacity is available for receiving the discharge of industrial waste at the proposed point of discharge.

4.09.02

The waste being discharged or proposed to be discharged is amenable to treatment by the processes employed in the Wastewater Treatment Plant receiving said wastewater and will not impair the ability of the City to comply with water quality standards or effluent standards established by the State or by Federal regulatory agencies.

4.09.03
The waste being discharged or proposed to be discharged will not cause damage to the Sewerage System including the waste water treatment facilities, will not constitute a hazard to humans or animals and will not be capable of creating a public nuisance.

4.09.04
The concentrations of substances, compounds and elements in the waste being discharged or proposed to be discharged do not exceed limits established by the Board, State or Federal authorities.

4.09.05
Where the wastewater contains or may contain any substances, compounds or elements controlled or limited by these Regulations, an adequate program of self-monitoring of flow and wastewater characteristics will be established and maintained by the industry affected by these Regulations to assure that the discharge meets the requirements of these Regulations and any SID Permit conditions.

4.09.06
The SIU agrees to execute with the Board a "Contract for Discharge and Use of the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama."

Section 4.10
An SID Permit shall include all appropriate requirements of these Regulations and all other applicable regulations established by the Board and ADEM. SID Permits may contain the following:

4.10.01
Limits on the average and maximum wastewater constituents and characteristics. The Board or ADEM may impose mass limitations on Users which are using dilution to meet applicable Pretreatment Standards or Requirements or in other cases where the imposition of mass limitations are appropriate.

4.10.02
Limits on average and maximum rates and time of discharge or requirements for flow regulations and equalization.

4.10.03
Requirements for installation and maintenance of inspection and or sampling facilities.

4.10.04
Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedules, and sharing of samples with the Board.

4.10.05
Compliance schedules.

4.10.06
Requirements for submission of technical reports or discharge reports as per Section 10.

4.10.07
Requirements for maintaining and retaining plant records relating to wastewater discharges as specified by the Board and ADEM and affording the Board and ADEM access thereto.

4.10.08
Requirements for notification of the Board and ADEM of any new introduction of wastewater constituents or any substantial changes in the volume or character of the waste-water constituents being introduced into the Sewerage System.

4.10.09
Limitations on, or requirements for notification of, Slug discharges as per Sections 7 and 8.

4.10.10
Other conditions as deemed appropriate by the Board or ADEM to insure compliance with the requirements and purposes of these Regulations.

Section 4.11
An SID Permit shall be issued for a specified time period, not to exceed five (5) years. The User shall apply for SID Permit reissuance a minimum of ninety (90) days prior to the expiration of the User's existing SID Permit. The Board reserves the right to recommend to ADEM changes in the SID Permit at any time as limitations or requirements as identified in Section 5 are modified or other just cause exists. The terms and conditions of the SID Permit may be subject to modification by ADEM during the term of the SID Permit as limitations or requirements as identified in Section 5 are modified or other just cause exists. The User shall be informed of any proposed changes in his SID Permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the SID Permit shall include a reasonable time schedule for compliance.

Section 4.12
An SID Permit is issued to a specified User for a specific operation. An SID Permit shall not be reassigned or transferred or sold to a new owner, new User, different premises or a new or exchanged operation without prior submission of applicable revisions to the application for the existing SID Permit and without the recommendation of the Board and approval by ADEM. Any succeeding owner or User shall also comply with the terms and conditions of the existing SID Permit.

Section 4.13
All building sewer installations shall be in accordance with provisions of Ordinance No. 1631 of the City.

Section 4.14
All construction activities shall conform to all applicable OSHA regulations.

SECTION 5 EXCLUDED WASTES

Section 5.01
No User shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the Sewerage System. These general prohibitions apply to all such Users of the Sewerage System whether or not the User is subject to National Categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements.

Section 5.02
No User shall discharge or deposit any of the following materials, waste materials, wastes, gases or liquids into any sewer forming part of the Sewerage System except where these may constitute

occasional, intermittent inclusions in the wastewaters discharged from residential premises:

5.02.01
Any wastewater having a temperature which will inhibit biological activity in the Wastewater Treatment Plant receiving said wastewater or resulting in other interference with the treatment processes but, in no case, wastewater with a temperature which exceeds 60°C (140°F) at its introduction into the Sewerage System or which exceeds 40°C (104°F) at its introduction into the Wastewater Treatment Plant receiving said wastewater.

5.02.02
Any water or waste containing more than 100 mg/l of fat, oil, or grease or other substances that will solidify or become viscous at temperatures between 0°C (32°F) and 60°C (140°F).

5.02.03
Wastewater from Industrial Users containing floatable oils, fat or grease.

5.02.04
Any garbage that has not been properly shredded so that no particles are any greater than one-half inch (½") in any dimension.

5.02.05
Any waste capable of causing 'abnormal corrosion, abnormal deterioration, damage to or creating a hazard to structures, equipment or personnel of the Sewerage System or interfering with proper operation of the City's Wastewater Treatment Plants. All wastes discharged to the Sewerage System must have a pH value in the range of 6 to 10 standard units. Prohibited materials include but are not limited to concentrated acids or alkalies and high concentrations of compounds of sulfur, chlorine and fluorine and substances which may react with water to form strongly acidic or basic products.

5.02.06
Any waters or wastes having a color which is not removable by the existing wastewater treatment processes and which causes the effluent from the Wastewater Treatment Plant receiving said wastewater to exceed color requirements for discharge to the receiving waters.

Section 5.03
No User shall discharge or deposit any of the following materials, waste materials, waste gases or liquids into any sewer forming a part of the Sewerage System:

5.03.01
Any liquids, solids or gases which by reason of their nature or quantity are or may be sufficient, either alone or by interaction with other substances, to cause fire or explosion ("Flammable") or be injurious in any other way to the Sewerage System or to the operation of the System. At no time shall two successive readings (15 to 30 minutes between readings) on an explosion hazard meter[1] at the point of discharge into the Sewerage System be more than five percent (5%) nor any single reading over ten percent (10%) of the Lower Explosive Limit (L.E.L.) of the meter. Prohibited materials covered by this Section include, but are not limited to, gasoline, kerosene, naphtha, benzene, 'fuel oil, motor oil, mineral spirits, commercial solvents, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides and hydrides.

5.03.02
Any other solid or viscous substance in quantity or character capable of causing obstruction to flow in sewers or interference with proper operation of wastewater treatment facilities such as, but not limited to, eggshells from egg processors, ashes, cinders, ceramic wastes,

sand, mud, straw, shavings, thread, glass, rags, metal, feathers, bones, tar, plastics, wood, paunch manure, insulation materials, fibers of any kind, stock or poultry feeds, processed grains, viscera or other fleshy particles from processing or packing plants or lime or similar sludges.

5.03.03
Any noxious or malodorous solids, liquids or gases, which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life or are or may be sufficient to prevent entry into a sewer for its maintenance and repair.

5.03.04
Any substance which may cause Wastewater Treatment Plant effluent or any other product of the Sewerage System such as residue, sludge or scum, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case shall a substance discharged to the Sewerage System cause the system to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed by local, State or Federal authorities.

5.03.05
Any substance, which will or has reasonable potential to cause the Sewerage System to violate its NPDES or causes degradation to the receiving stream.

5.03.06
Any water or wastes which, by interaction with other waters or wastes in the Sewerage System, release obnoxious gases, form suspended solids which interfere with Sewerage System or create a condition deleterious to structures and treatment processes.

5.03.07
Any form of Inflow as defined by Section 1.03.25 including storm drainage and uncontaminated thermal process water.

5.03.08
Infiltration as defined by Section 1.03.24 in excess of two hundred (200) gallons per inch of pipe diameter per mile of pipe per day.

5.03.09
Any unpolluted wastewater, as defined in Section 1.03.60.

5.03.10
Wastewater which alone or in conjunction with other sources may cause or have reasonable potential to cause the POTW's effluent to fail a toxicity test.

5.03.11
Any wastewater containing radioactive wastes or isotopes except in compliance with applicable Federal, State, and local laws and regulations and as specifically authorized by the Board.

5.03.12
Any wastewater generated from offsite facilities other than described in section 3.02 of this document.

5.03.13
Wastewater discharged from centralized wastewater facilities.

Section 5.04
No User shall discharge into any sewer forming part of the Sewerage System any of the following materials in concentrations exceeding the stated limits:

5.04.01
Any water or wastes that contain more than ten (10) mg/i of hydrogen sulphide, sulphur dioxide or nitrous oxide.

5.04.02
Any toxic or poisonous substance or any other materials in sufficient quantity to injure or interfere with the wastewater treatment processes, or to constitute a hazard to humans or animals or to cause a violation of the water quality standards or effluent standards for the stream or watercourse receiving the effluent from the Wastewater Treatment Plant receiving said wastewater or to exceed limitations set forth in Categorical Pretreatment Standards.

5.04.03
Any waters containing suspended solids of such character and quantity that unusual provisions, attention or expense is required to handle such materials at the Wastewater Treatment Plant receiving said wastewater.

5.04.04
Any waters containing quantities of radium or naturally occurring or artificially produced radioisotopes in excess of presently existing or subsequently accepted limits for drinking water' as established by current drinking water regulations promulgated by EPA.

5.04.05
No person shall discharge wastewater containing in excess of fixed upper limits for constituents (Milligrams per Liter)

	Maximum Instantaneous Concentration mg/l (Grab Sample)	Maximum Daily Average (24 Hour Flow Proportional (Composite Sample) mg/l
Aluminum (Dissolved)	50.0	25.0
Arsenic	0.5	.1
Cadmium	0.2	0.1
Chromium, Hexavalent	0.2	0.1
Chromium, Total	2.5	1.0
Cobalt	1.6	0.8
Copper	2.0	1.0
Cyanide	1.0	0.5
Iron	20.0	10.0
Lead	0.2	0.1
Mercury	0.1	.001
Molybdenium	1.0	
Nickel	1.0	0.5
Silver	0.5	0.25
Tin	10.0	1.0
Zinc	3.6	1.8
Phosphates (Total as P)	40.0	20.0
Total Metals, As+Cd+Cr+Co+Cu+ILg+Pb+Ni+Ag+Su+Zn	10.5	5.0

5.04.06
The admission into the Sewerage System of any waters or wastes, having a BOD in excess of two hundred fifty (250) mg/l on a twenty-four (24) hour composite basis or for any single sample having a BOD in excess of five hundred (500) mg/l, will be subject to review by the Board. Where necessary in the opinion of the Board, the User shall provide and operate, at his own expense, such pretreatment as may be required to reduce the BOD to meet the above requirements.

5.04.07
The admission into the Sewerage System of any waters or wastes, having a suspended solids content in excess of two hundred fifty (250) mg/l on a twenty-four (24) hour composite basis or for any single sample having a suspended solids content greater than five hundred (500) mg/l will be subject to review by the Board. Where necessary in the opinion of the Board, the User shall provide and operate, at his own expense, such pre-treatment as may be required 'to reduce the suspended solids content to meet the above requirements.

5.04.08
The admission into the Sewerage System of any waters or wastes, having a Chemical Oxygen Demand (COD) content in excess of five hundred (500) mg/l on a twenty-four (24) hour composite basis or for any single sample having a COD content greater than One thousand (1000) mg/l will be subject to review by the Board. Where necessary in the opinion of the Board, the User shall provide and operate, at his own expense, such pre-treatment as may be required 'to reduce the COD content to meet the above requirements.

5.04.09
The admission, into the Sewerage System of any waters or wastes in volumes or with constituents such that existing dilution conditions in the sewers or at the Wastewater Treatment Plant receiving said wastewater would be affected to the detriment of the Sewerage System, shall be subject to review and approval of the Board. Where necessary in the opinion of the Board, pretreatment or equalizing units may be required to bring constituents or volumes of flow within the limits previously prescribed or to an otherwise acceptable level and to hold or equalize flows such that no peak flow conditions may hamper the operation of any unit of the Sewerage System. Said equalization or holding unit shall have a capacity suitable to serve its intended purpose and be equipped with acceptable outlet control facilities to provide flexibility in operation and accommodate changing conditions in the waste flow.

5.04.10
Upon the promulgation of the National Categorical Pretreatment Standards for a particular industrial subcategory, the Categorical Standard, if more stringent than limitations imposed under these Regulations for sources in that subcategory, shall immediately supersede the limitations imposed under these Regulations. All affected Users shall notify the Board of the applicable 'reporting requirements under 40CFR, Section 403.12.

5.04.11
State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those of these Regulations.

5.04.12
The Board reserves the right to establish additional regulations containing more stringent limitations or requirements on discharges to the Sewerage System if deemed necessary.

5.04.13
If the Board determines that a User is contributing to the Board's wastewater facilities, any substances in such amounts as to interfere with the operation of the Board's Wastewater facilities the Board may implement any or all of the following:

5.04.13.01
Advise the User(s) of the impact of the contribution on the Board's wastewater treatment facilities.

5.04.13.02
Develop effluent limitation(s) for such User to correct the interferences with the Board's wastewater facilities

5.04.13.03
The Board may suspend or terminate any discharge which may interfere with the operations of the Board's facility or facilities or the Board's wastewater facility's or facilities' ability to meet NPDES requirements, or may directly or indirectly cause degradation to the receiving stream.

5.04.13.04
Impose surcharges to defray additional treatment costs, discourage continued excursions and encourage acceptable pretreatment practices. See Appendix A - Sewer Use Surcharges

SECTION 6 SAND AND OIL/GREASE INTERCEPTORS

Section 6.01
All Users involved in the preparation of food for commercial purposes shall provide at their own expense oil/grease interceptors or traps. Grease traps shall be designed as appropriate for the size of the facility as specified in international plumbing code. Additionally, any User who generates a wastewater which contains greater than the quantity of oil and grease specified under Section 5.02.02 and provided that the excess oil and grease is floatable and can be effectively removed in an oil/grease interceptor or trap, then said User will be required to install a grease/oil interceptor.

Section 6.02
All Users whose wastewater stream is associated with unusually large quantities of grit, sand or gravel shall be required to install a sand trap. All car/truck wash systems shall be required to install a sand trap.

Section 6.03
All grease, oil and sand interceptors or traps shall be maintained by the User at their expense, in continuously efficient operation at all times.

Section 6.04
In the maintaining of these interceptors, the owner shall be responsible for the proper removal and disposal by appropriate means of the captured material, and shall maintain records of the dates, and means of disposal which are subject to review by the Board. The frequency of removal shall be such as to ensure that no overflows of oil, grease or sand into the wastewater system ever results.

Section 6.05
Proper Disposal of Collected Materials.
Any removal and hauling of the collected materials not performed by the owner's employees must be performed by currently licensed waste disposal firms. Under no circumstances shall the collected materials ever be returned to the wastewater system.

SECTION 7 PRETREATMENT AND ACCIDENTAL DISCHARGE

Section 7.01
Any person, who is denied a permit to discharge industrial waste, or who is prohibited from discharging any substance as specified in these Regulations or who is required to provide pretreatment or flow equalization as a SIU under the Federal effluent limitation guidelines for the appropriate industrial category, shall have the sole responsibility to devise at his own expense the methods for eliminating the problem so as to make any waste discharge eligible for a permit or for compliance with these Regulations or the Federal guidelines. Such sole responsibility shall not be affected nor shall any responsibility be assumed by the Board, notwithstanding that the Board may render any assistance to any person in overcoming such a problem by offering advice or suggestions. Additionally:

7.01.01
Where pretreatment or equalization of industrial wastewater. flows prior to discharge into any part of the Sewerage System are required; plans, specifications and other pertinent data or information relating to such pretreatment or flow control facilities shall first be submitted to the Board and ADEM for review and approval in accordance with Section 4. Satisfactory evidence must be included that the method of disposal of pretreatment sludges has the approval of the appropriate State and/or local solid waste program agency. Such approval shall not exempt the discharge or such facilities from compliance with any applicable code, ordinance, rule, regulation or order of any governmental authority. Any subsequent alteration or addition to such pretreatment or flow control facilities shall not be made without due notice to and prior approval by the Board and ADEM.

7.01.02
If pretreatment or control of flows is required, such facilities shall be constructed, maintained in good working order and properly operated as efficiently as possible by the User at his own cost and expense, subject to the requirements of these Regulations and all other applicable codes, ordinances and laws.

Section 7.02
In the event of an Accidental Discharge as defined in Section 1.03.01:

7.02.01
Each Industrial User shall provide protection from Accidental Discharge of prohibited materials or other wastes regulated by these Regulations. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the User's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the Board and ADEM upon request for review and approval. Review and approval of such plans and operating procedures do not relieve the Industrial User from the responsibility to modify his facility as necessary to meet the requirements of these Regulations.

7.02.02
If, after taking action as provided in Section 7.02.01, an industrial facility - for any unforeseen reason - fails to comply with any prohibition or limitation in these Regulations, the User responsible for such noncomplying discharge shall immediately notify the Board so that any feasible corrective action may be taken to protect the treatment system or to minimize adverse effects thereon. In addition, a written report addressed to the Board and to ADEM detailing the date, time and cause of the Accidental Discharge, the quantity and characteristics of the discharge and corrective action taken to prevent future discharges shall be filed by the responsible industrial facility within five (5) days of the occurrence of the noncomplying discharge.

7.02.03
A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees whom to call in the event of an Accidental Discharge. Employers shall insure that all employees, who observe or who may cause or suffer such an Accidental Discharge to occur, are advised of the emergency notification procedure.

SECTION 8 FLOW AND CONCENTRATION CONTROL

Section 8.01
No person shall discharge any wastes or wastewaters in "Slugs" as defined in Section 1.03.50.

Section 8.02
Any person, now discharging or proposing to discharge wastes which may include "Slugs" as defined in Section 1.03.50, may be required to provide facilities or adopt procedures for regulating, controlling or equalizing the concentration of any constituent and/or the rate of waste discharge.

SECTION 9 MEASUREMENT OF FLOW

Section 9.01
The volume or quantity of industrial waste discharged by a User into the Sewerage System shall be measured by one or more of the following methods:

9.01.01
If the volume of water used by any User is substantially the same as the volume secured from the Water Department of the Utilities Board of the City of Sylacauga, Alabama, then the volume of water purchased shall be considered to be the volume of waste discharged.

9.01.02
If a substantial portion of the water secured by a User from the Water Department is not returned to the Sewerage System, the quantity of wastewater shall be determined as follows:

9.01.02.01
By a meter (or meters) on the water supply line (or lines) to his industrial and/or process operations not discharging to the Sewerage System, or

9.01.02.02
By a meter (or meters) on his waste line (or waste lines) which discharges into the Sewerage System.

9.01.02.03
If meters as required under Sections 9.01.02.01 and 9.01.02.02 above shall not have been installed, an estimate shall be made by the Board for that proportion of water purchased which is used for industrial purposes and not returned to the Sewerage System.

9.01.03
If any User - now discharging or proposing to discharge industrial waste into the Sewerage System - does not secure his entire water supply requirements from the Water Department, such User shall install and maintain a meter (or meters) on his waste line (or waste lines) which discharge into the Sewerage System or shall install such additional meters on the private water supply as required to permit determination of the total quantity discharged to the Sewerage System from both sources under procedures comparable to Sections 9.01.01 or 9.01.02 above.

Section 9.02
All sources of water supply and all discharges of wastewater into the Sewerage System must be identified in accordance with the provisions of Section 9.01. Any omission shall be considered as an unauthorized use of the Sewerage System.

SECTION 10 MONITORING FACILITIES

Section 10.01
Any User, who is discharging or proposes to discharge industrial waste into the Sewerage System, shall provide, operate and maintain at the User's own expense monitoring facilities to allow inspection, sampling and flow measurement of the building sewer and/or internal drainage systems. These monitoring facilities shall be as specified in the User's SID Permit. The monitoring facilities should normally be situated on the User's premises but the Board may, in its sole discretion, when such a location would be impractical or cause undue hardship on the User, allow the facilities to be constructed in the public street or sidewalk area and located so that they will not be obstructed by landscaping or parked vehicles.

Section 10.02
There shall be ample room in or near such monitoring facilities to allow accurate sampling and preparation of samples for analysis. The facilities shall be maintained at all times in a safe and proper operating condition at the expense of the User.

Section 10.03
When deemed necessary by the Board and/or ADEM, continuous recording and/or sampling equipment shall be installed and maintained at User expense.

Section 10.04
Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with requirements of the Board, ADEM and/or all applicable local construction standards and specifications. Construction shall be completed within ninety (90) days following written notification by the Board or ADEM. Additional construction time may be granted by the Board or ADEM, as the case may be, in its sole discretion, where so dictated by equipment availability.

Section 10.05
The Board and/or ADEM shall review monitoring facilities of present Users and may require additional monitoring facilities as required for compliance with Sections 10.01, 10.02 and 10.03.

Section 10.06
New Users shall provide monitoring facilities as specified in their SID Permits prior to plant start up.

SECTION 11 INSPECTIONS, MONITORING AND REPORTING

Section 11.01
Significant Industrial Users shall submit self-monitoring data at monthly intervals to the Board and ADEM. These monthly reports will be submitted using copies of monitoring forms available from the Board as approved by ADEM and will be due by the 28th of the month following the reporting period.

Section 11.02
Facilities generating industrial wastes and/or other pollutants which are discharged into the Sewerage System shall be subject to inspection by the Board, and by ADEM. A determination of character and strength of said wastes may be made annually or more often as may be deemed necessary by the Board and/or ADEM [wca2]] to ascertain whether the purposes of these Regulations are being met, all requirements are being complied with and to determine strengths of wastes for user charge computations.

Section 11.03
Within 90 days following the date for final compliance with applicable Pretreatment Standards as defined in Section 1.03.28 or, in the case of a New Source, following commencement of the introduction of wastewater into the Sewerage System; any User, subject to Pretreatment Standards or who is so required by the Board or ADEM, shall submit to the Board and ADEM a report indicating the nature and concentrations of all pollutants in the discharge from the regulated process which are limited by Pretreatment Standards and/or limitations established in Section 5 of these Regulations and the average and maximum daily flows for these process units in the User's facility. The report shall state whether the applicable Pretreatment Standards and/or Regulations limitations are being met on a consistent basis and, if not, what additional 0 & M and/or pretreatment is necessary to bring the User into compliance with the applicable Pretreatment Standards and/or Regulations limitations. This report shall be signed by an Authorized Representative of the Industrial User.

Section 11.04
Samples shall be collected manually or mechanically over such periods of time and composited in such a manner as to be representative of the wastes being discharged. The laboratory methods followed in the examination of said wastes shall be those as set forth in the latest edition of "Standard Methods", as defined in Section 1.03.52.

Section 11.05
When so requested by the Industrial User, samples collected by the Board or ADEM will be split with the Industrial User for verification of analytical results. However, determination of the character, strength or quantity of the wastes as made by the Board or ADEM shall be binding as a basis for computation of charges or for actions by the Board or ADEM.

SECTION 12 AUTHORITY FOR INSPECTION, FACILITY ACCESS AND MAINTENANCE

Section 12.01
The Manager and other duly-authorized employees of the Board and ADEM, bearing proper credentials and identification, shall be permitted to enter upon all properties for the purpose of inspection, observation, flow measurement, sampling and testing of industrial wastes and other pollutants in accordance with these Regulations.

Section 12.02
The Manager and other duly authorized employees of the Board are authorized to obtain information concerning industrial processes, which have a direct bearing on the kinds and sources of discharges to the Sewerage System. As required by Federal regulations, Industrial Users must disclose information on processes; however, the Board agrees that trade secret information will not be disclosed and will be held confidential.

Section 12.03
Persons or occupants of premises where wastewater is created or discharged shall allow the Manager and other duly-authorized employees of the Board and ADEM ready access at all reasonable times to all points on the premises where wastes are discharged into sewers for the purposes of inspection, sampling, records examination or in the performance of any of their duties.

Section 12.04
The Board, their representatives and ADEM shall have the right to set up on the User's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

Section 12.05
Where a User has security measures in force which would require proper identification and clearance before entry into his premises, the User shall make necessary arrangements with his security guards so that, upon presentation of suitable identification, personnel from the Board, their representatives and ADEM will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

Section 12.06
Notwithstanding the foregoing, in the event that the Board reasonably believes that any discharge by User may interfere with the operation of the Board's wastewater facility or facilities or the Board's ability to meet NPDES requirements, or may directly or indirectly cause degradation to the receiving stream, the Board shall be authorized to enter the User's property and, to the extent that it shall be necessary in the Board's reasonable judgment, to take actions affecting User's facilities or equipment, including, without limitation, closing valves, shall be authorized to do so, and to interrupt or discontinue User's service. All actions or determinations of the Board resulting in interruption or discontinuance of User's service pursuant to the provisions of this section may be appealed to the board of directors of The Utilities Board of the City of Sylacauga, Alabama in the manner provided in Section 14.01.

SECTION 13 PROTECTION OF EQUIPMENT

In accordance with provisions of Ordinance No.1631 of the City, no person shall maliciously,

willfully or negligently break, damage, destroy, deface, tamper with or remove any equipment or materials which are a part of the Sewerage System or any equipment or materials used by the Board or ADEM for the purposes of making waste examinations and waste flow measurements and left upon the premises of a User discharging wastes into the Sewerage System. Only persons authorized by the Board or ADEM will be allowed to uncover, adjust, maintain and remove such equipment and materials.

SECTION 14 REVIEWING AUTHORITY AND AMENDMENT

Section 14.01
The board of directors of The Utilities Board of the City of Sylacauga, Alabama shall be the reviewing authority for all appeals of actions or administrative determinations made by the Board pursuant to the provisions of these Regulations. Notice of intent to appeal and request for a hearing shall be addressed to the Utilities Board of the City of Sylacauga, Alabama, 301 N. Elm Avenue, Sylacauga, Alabama 35150-1992, in writing and shall detail the nature of the appeal. An early date for such hearing shall be set by the board of directors and the appellant shall be promptly notified in writing. The decision of the Board after such hearing shall be final and conclusive and shall be conveyed to the persons involved in writing.

Section 14.02
The Board expressly reserves the absolute right to amend, modify, rescind or supplement these Regulations with concurrence by ADEM.

Section 14.03
The Board will adopt and modify from time to time separate Rate Schedules to supplement these Regulations.

SECTION 15 ENFORCEMENT, PENALTIES AND COSTS

Section 15.01
If wastewaters containing any substance described in Section 5 of these Regulations are discharged or accidentally discharged into the Sewerage System by a User, the Board may, in the event that the Board reasonably believes the same to be necessary or appropriate in order to preclude or stop interference with the operation of the Board's wastewater facility or facilities or the Board's ability to meet NPDES requirements, or to preclude or stop degradation to the receiving stream,, take any of the actions described in Section 12.06;issue orders in accordance with the provisions of a "Contract for Discharge into and Use of the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama" between the Board and the User; commence an action for appropriate injunctive, abatement or equitable relief in any court having jurisdiction, commence an action or proceeding for administrative relief or assistance from ADEM; or pursue any combination of the foregoing.

[wca3]**Section 15.02**
In any case involving a person who has failed to pay any applicable and duly adopted user charges within the time limits prescribed for such payment, procedure for enforcement shall be as follows:

15.02.01
If full payment is not received by the Board on or before the delinquent date shown on a User's bill, a Late Charge will be added to the User's next billing. The Late Charge shall be the greater of one and one-half percent (1-1/2%) of the delinquent balance or five dollars ($5.00).

15.02.02
If full payment is not received on or before the cutoff date shown on the bill, service may be discontinued without further notice and an additional reinstatement charge of fifty dollars ($50.00) will be added to the User's delinquent account. If the Board subsequently discontinues additional services of the User, a charge of twenty dollars ($20.00) will be added to the User's account for each additional service discontinued by the Board. All reinstatement charges, the delinquent amount and the late charges must be paid prior to service being restored. The Board reserves the right to increase the advance payment requirement for any User whose service has been discontinued for nonpayment and the additional advance payment (if required) must be paid before service will be restored to such User.

15.02.03
A User may contact the Board Manager or Finance Director to dispute any alleged delinquency in payment or to present any error that the User believes has occurred in any billing, and the Board Manager and Finance Director each has all authority necessary to hear and resolve all such disputes or alleged errors and to make all such adjustments or to direct such other actions as may be warranted or appropriate in the circumstances.

15.02.04
The Board Manager and the Finance Director are authorized to extend the cutoff date where Users have made arrangements in advance to clear any delinquent amounts by an approved date.

15.02.05
All determinations of the Board Manager and the Finance Director relating to billing disputes or asserted billing errors may be appealed to the board of directors of the Board who shall be the reviewing authority for all appeals of determinations by the Board Manager or Finance Director of billing disputes or asserted billing errors. Notice of intent to appeal and request for a hearing shall be addressed to the Utilities Board of the City of Sylacauga, Alabama, 301 N. Elm Avenue, Sylacauga, Alabama 35150-1992, in writing and shall detail the nature of the appeal. An early date for such hearing shall be set by the board of directors and the appellant shall be promptly notified in writing. The decision of the board of directors after such hearing shall be final and conclusive and shall be conveyed to the persons involved in writing.

Section 15.03
All actions or determinations of the Board resulting in interruption or discontinuance of User's service pursuant to the provisions of Section 12.06 may be appealed to the board of directors of The Utilities Board of the City of Sylacauga, Alabama in the manner provided in Section 14.01.

Section 15.04
The Board has adopted rates, changes and fees to enable it to recover the costs from Users of the Sewerage System of the Utilities Board of the City of Sylacauga, Alabama for the implementation of the program established herein and for the construction, operation and maintenance of said System.

All rates, charges and fees shall be published in a schedule separate from these

Regulations and may be revised from time to time as the Board finds necessary and appropriate to enable it to recover the costs of construction, operation and maintenance of the system.

These fees relate solely to the matters covered by these Regulations and are separate from all other fees chargeable by the City or the Board.

SECTION 16 ASSIGNMENT OF PROGRAM RESPONSIBILITIES

Section 16.01
Implementation of these Regulations may be either a joint effort by the Board and ADEM or an independent effort by the Board under these Regulations or ADEM under its State Pretreatment Regulations.

Section 16.02
ADEM shall assume primary responsibility for implementation of actions involving Significant Industrial Users as defined in Section 1.03.49; provided, however, that nothing contained in these Regulations shall preclude the Board from declining to extend service to, or suspending or terminating any discharge from, any Significant Industrial User whose discharge the Board reasonably believes has interfered, or will interfere, with the operations of the Board's wastewater facility or facilities, the Board's facility's or facilities' ability to meet NPDES requirements, or may directly or indirectly cause degradation to the receiving stream..

Section 16.03
The Board shall assume primary responsibility for implementation of all actions other than those assigned to ADEM under Section 16.02.

SECTION 17 SEVERABILITY

If any Section, clause, provision or portion of these Regulations shall be held to be invalid or unconstitutional by any court of competent jurisdiction; such holding shall not affect any other Section, clause, provision or portion of these Regulations.

SECTION 18 CONFLICT

All other Regulations and parts of other Regulations inconsistent or conflicting with any part of these Regulations are hereby repealed to the extent of such inconsistency or conflict.

SECTION 19 EFFECTIVE DATE

These Regulations shall be in full force and effect from and after their passage and approval as provided by law.

ADOPTED AND APPROVED THIS 16TH DAY OF AUGUST, 2011
THE UTILITIES BOARD OF THE CITY OF SYLACAUGA

_____

Chairman, Utilities Board of the
City of Sylacauga, Alabama

ATTEST:_____(Seal) *Secretary*

Appendix A – Surcharges

Constituent	Base Allowance	24 Hr Composite Limit	Surcharge
Biochemical Oxygen Demand	Less than 250 mg/l	Greater Than 250 mg/ L	$0.22 / Lb
Chemical Oxygen Demand	Less Than 500 Mg/l	Greater Than 500 mg/l	$0.11 / Lb

Note:

- The pounds of contamination for surcharge calculation shall be based on the average monthly sample concentration less the base allowance concentration.
- Surcharge amount of BOD and COD shall be greater of the two; surcharge is not cumulative for these parameters.
- Total mass loading to the POTW from an individual user shall be negotiated on a case by case basis based on available treatment capacity of the POTW.
- The Board reserves the right to amend the surcharge to adjust for fluctuations of treatment costs without prior notice.

Date	Before Outfall	After Outfall	Plant Effluent
12/22/2010	170	160	156
12/30/2010	164	160	148
1/6/2011	164	152	144
1/13/2011	168	156	148
1/20/2011	160	160	144
1/28/2011	158	156	150
2/8/2011	164	156	140
2/18/2011	146	160	138
2/22/2011	164	156	144
3/3/2011	154	146	140
3/17/2011	140	120	118
3/24/2011	170	164	130
4/4/2011	166	160	144
5/2/2011	150	132	145
6/6/2011	144	148	140
7/22/2011	140	140	138
8/11/2011	144	154	162
9/21/2011	152	152	134
10/10/2011	148	152	152
11/29/2011	164	160	162
12/15/2011	164	154	152
2/29/2012	160	158	132
3/22/2012	148	140	132
6/13/2012	124	122	132
7/26/2012	140	136	160
9/13/2012	140	142	150
10/11/2012	160	164	160
1/6/2015	120	120	128
2/10/2015	150	148	108
3/12/2015	144	138	130
4/13/2015	144	148	152
6/17/2015	144	144	136
8/20/2015	118	112	110
10/15/2015	140	140	144
11/20/2015	122	123	119
8/13/2016	124	124	136
10/17/2016	128	140	156
1/26/2017	130	136	140
7/14/2017	140	148	140
10/13/2017	128	142	146
4/3/2018	128	140	156
8/6/2018	128	134	160

Torbert, Shanda R

From: David Green <dgreen@sylacauga.net>
Sent: Friday, September 21, 2018 9:26 AM
To: Torbert, Shanda R
Subject: RE: Shirtee Creek Hardness Data

Ms. Torbert,

The Standard Method that we use to run the Hardness is 2340C EDTA Titrimetric Method. Let me know if you need anything else.

Thanks, David

From: Torbert, Shanda R <STorbert@adem.alabama.gov>
Sent: Friday, September 21, 2018 8:48 AM
To: David Green <dgreen@sylacauga.net>
Subject: RE: Shirtee Creek Hardness Data

Dear Mr. Green:

Thank you for the information. Can you please tell me the testing method that was used?

Sincerely,
Shanda Torbert

Shanda Torbert
Municipal Section
Water Division
Alabama Department of Environmental Management
Post Office Box 301463, Montgomery, AL 36130-1463
Phone - (334) 271-7800
Fax - (334) 271-7800
adem.alabama.gov

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From: David Green <dgreen@sylacauga.net>
Sent: Friday, September 21, 2018 8:30 AM
To: Torbert, Shanda R <STorbert@adem.alabama.gov>
Subject: Shirtee Creek Hardness Data

Ms. Torbert,

Attached is the Hardness data that we have collected for Shirtee Creek. The average of the Hardness samples for the receiving stream is 146 mg/l. The attached graph has all the data for Shirtee including the Prior and Post WWTP discharge. If you need any additional information feel free to give me a call.

Thanks, David

David Green
Water Quality Supervisor
Utilities Board of the City of Sylacauga
dgreen@sylacauga.net
Office----256-401-2536
Cell-------256-267-0002

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