



Alabama Department of Environmental Management
adem.alabama.gov

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JANUARY 26, 2024

Allan Rice, City Administrator
City of Hoover
100 Municipal Lane
Hoover, AL 35216

RE: Draft Permit
NPDES Permit No. AL0025852
Inverness WWTP
Shelby County, Alabama

Dear Mr. Rice:

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 Parts I.C.1.c and I.C.2.e of your permit require participation in the Department's Alabama Environmental Permitting and Compliance System (AEPACS) for submittal of DMRs and SSOs upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. SSO hotline notifications and hard copy Form 415 SSO reports may be used only with the written approval from the Department. AEPACS allows ADEM to electronically validate and acknowledge receipt of the data. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. Please note that all AEPACS users can create the electronic DMRs and SSOs; however, only AEPACS users with certifier permissions will be able to submit the electronic DMRs and SSOs to ADEM.

Our records indicate that you have utilized the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs) and sanitary sewer overflow (SSO) notifications/reports. The Department transitioned from the E2 Reporting System to the Alabama Environmental Permitting and Compliance System (AEPACS) for the submittal of DMRs and SSOs on November 15, 2021. AEPACS is an electronic system that allows facilities to apply for and maintain permits as well as submit other required applications, registrations, and certifications. In addition, the system allows facilities to submit required compliance reports or other information to the Department. The Department has used the E2 User account information to set up a similar User Profile in AEPACS based on the following criteria:



1. The user has logged in to E2 since October 1, 2019; and
2. The E2 user account is set up using a unique email address.

E2 users that met the above criteria will only need to establish an ADEM Web Portal account (<https://prd.adem.alabama.gov/awp>) under the same email address as their E2 account to have the same permissions in AEPACS as they did in E2. They will also automatically be linked to the same facilities they were in E2.

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.

If you have questions regarding this permit or monitoring requirements, please contact Dustin Stokes at dastokes@adem.alabama.gov or (334) 271-7808.

Sincerely,



Dustin Stokes
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



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: CITY OF HOOVER
100 MUNICIPAL LANE
HOOVER, AL 35216

FACILITY LOCATION: INVERNESS WWTP (1.2 MGD)
3308 AFTON CIRCLE
HOOVER, ALABAMA
SHELBY COUNTY

PERMIT NUMBER: AL0025852

RECEIVING WATERS: CAHABA RIVER
UT TO CAHABA RIVER (STORM WATER ONLY)

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

TABLE OF CONTENTS

PART I: DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS	1
A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS.....	1
1. DSN 0011: Treated Domestic Wastewater - Plant to Cahaba River (December - April only).....	1
2. DSN 001T: Plant to Cahaba River Toxicity.....	3
3. DSN 0021: Treated Domestic Wastewater - Plant to Holding Pond.....	4
4. DSN 0031: Treated Domestic Wastewater - Holding Pond to Cahaba River (HCR)	5
5. DSN 003T: Holding Pond to Cahaba River Toxicity.....	6
6. DSN 004S & 005S: Storm water	7
B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS.....	8
1. Representative Sampling.....	8
2. Measurement Frequency	8
3. Test Procedures.....	8
4. Recording of Results.....	9
5. Records Retention and Production.....	9
6. Reduction, Suspension or Termination of Monitoring and/or Reporting.....	9
7. Monitoring Equipment and Instrumentation	9
C. DISCHARGE REPORTING REQUIREMENTS.....	9
1. Reporting of Monitoring Requirements	9
2. Noncompliance Notifications and Reports.....	11
D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS.....	13
1. Anticipated Noncompliance.....	13
2. Termination of Discharge	13
3. Updating Information.....	13
4. Duty to Provide Information	13
E. SCHEDULE OF COMPLIANCE.....	14
1. Compliance with discharge limits.....	14
2. Schedule.....	14
PART II: OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES	15
A. OPERATIONAL AND MANAGEMENT REQUIREMENTS.....	15
1. Facilities Operation and Maintenance.....	15
2. Best Management Practices	15
3. Certified Operator	15
B. OTHER RESPONSIBILITIES.....	15
1. Duty to Mitigate Adverse Impacts	15
2. Right of Entry and Inspection	15
C. BYPASS AND UPSET.....	15
1. Bypass.....	15
2. Upset.....	16
D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES.....	16
1. Duty to Comply.....	16
2. Removed Substances.....	17
3. Loss or Failure of Treatment Facilities	17
4. Compliance with Statutes and Rules.....	17
E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE.....	17
1. Duty to Reapply or Notify of Intent to Cease Discharge	17
2. Change in Discharge	17
3. Transfer of Permit.....	17

4. Permit Modification and Revocation	18
5. Termination	18
6. Suspension	19
7. Stay	19
F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION	19
G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS	19
H. PROHIBITIONS	19
PART III: ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS	21
A. CIVIL AND CRIMINAL LIABILITY	21
1. Tampering	21
2. False Statements	21
3. Permit Enforcement	21
4. Relief from Liability	21
B. OIL AND HAZARDOUS SUBSTANCE LIABILITY	21
C. PROPERTY AND OTHER RIGHTS	21
D. AVAILABILITY OF REPORTS	22
E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES	22
F. COMPLIANCE WITH WATER QUALITY STANDARDS	22
G. GROUNDWATER	22
H. DEFINITIONS	23
I. SEVERABILITY	25
PART IV: SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS	26
A. SLUDGE MANAGEMENT PRACTICES	26
1. Applicability	26
2. Submitting Information	26
3. Reopener or Modification	26
B. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY	26
C. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS	29
D. PLANT CLASSIFICATION	30
E. SANITARY SEWER OVERFLOW RESPONSE PLAN	30
F. POLLUTANT SCANS	32
G. MAJOR SOURCE STORMWATER REQUIREMENTS	32
H. HYDROGRAPH CONTROL RELEASE SPECIAL REQUIREMENTS	33

PART I: DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. DSN 0011: Treated Domestic Wastewater - Plant to Cahaba River (December - April only)

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 001, which is described more fully in the Permittee's application. Such discharge shall only occur during the months of December – April and shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Oxygen, Dissolved (DO) (00300) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	*****	mg/l	3X Weekly test	Grab	W
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	3X Weekly test	Grab	W
Solids, Total Suspended (00530) Effluent Gross Value	300 Monthly Average	450 Weekly Average	lbs/day	*****	30.0 Monthly Average	45.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
Solids, Total Suspended (00530) Raw Sew/Influent	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	10.0 Monthly Average	15.0 Weekly Average	lbs/day	*****	1.0 Monthly Average	1.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	20.0 Monthly Average	30.0 Weekly Average	lbs/day	*****	2.0 Monthly Average	3.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	Monthly	24-Hr Composite	W
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	0.043 Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	April

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

- (1) Sample Frequency – See also Part I.B.2
- (2) W = Winter (December - April)
NTW = Nutrient Winter (December - March)
ECW = E. coli Winter (December - April)
- (3) 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.
- (4) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as “*B” on the monthly DMR.

DSN 0011 (Continued): Treated Domestic Wastewater - Plant to Cahaba River (December - April only)

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 001, which is described more fully in the Permittee's application. Such discharge shall only occur during the months of December – April and shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
	(Report) Monthly Average	(Report) Weekly Average		*****	(Report) Monthly Average	(Report) Weekly Average				
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	NTW
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Daily	Continuous	W
Chlorine, Total Residual (50060) See notes (3, 4) Effluent Gross Value	*****	*****	*****	*****	0.017 Monthly Average	0.029 Maximum Daily	mg/l	3X Weekly test	Grab	W
E. Coli (51040) Effluent Gross Value	*****	*****	*****	*****	548 Monthly Average	2507 Maximum Daily	col/100mL	3X Weekly test	Grab	ECW
BOD, Carbonaceous 05 Day, 20C (80082) Effluent Gross Value	40.0 Monthly Average	60.0 Weekly Average	lbs/day	*****	4.0 Monthly Average	6.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
BOD, Carbonaceous 05 Day, 20C (80082) Raw Sew/Influent	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
BOD, Carb-5 Day, 20 Deg C, Percent Remvl (80091) Percent Removal	*****	*****	*****	85.0 Monthly Average Minimum	*****	*****	%	Monthly	Calculated	W
Solids, Suspended Percent Removal (81011) Percent Removal	*****	*****	*****	85.0 Monthly Average Minimum	*****	*****	%	Monthly	Calculated	W

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

- (1) Sample Frequency – See also Part I.B.2
- (2) W = Winter (December - April)
NTW = Nutrient Winter (December - March)
ECW = E. coli Winter (December - April)
- (3) 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.
- (4) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as “*B” on the monthly DMR.

2. DSN 001T: Plant to Cahaba River Toxicity

This is an administrative outfall designation. Outfall 001T is the same physical outfall as Outfall 0011. Discharge from this outfall shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Toxicity, Ceriodaphnia Chronic (61426) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	See Permit Requirements	24-Hr Composite	Apr, Dec
Toxicity, Pimephales Chronic (61428) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	See Permit Requirements	24-Hr Composite	Apr, Dec

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

- (1) Sample Frequency – See also Part I.B.2
- (2) See Permit Requirements for Effluent Toxicity Testing in Part IV.B.

3. DSN 0021: Treated Domestic Wastewater - Plant to Holding Pond

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 002, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal
pH (00400) Effluent Gross Value	****	****	****	6.0 Minimum Daily	****	9.0 Maximum Daily	S.U.	3X Weekly test	Grab	Not Seasonal
Solids, Total Suspended (00530) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	30.0 Monthly Average	45.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Solids, Total Suspended (00530) Raw Sew/Influent	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	3.0 Monthly Average	4.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Nitrate Total (As N) (00620) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	7.5 Monthly Average	10.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	10.0 Monthly Average	15.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	1.0 Monthly Average	1.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Daily	Continuous	Not Seasonal
E. Coli (51040) Effluent Gross Value	****	****	****	****	126 Monthly Average	298 Maximum Daily	col/100mL	3X Weekly test	Grab	Not Seasonal
BOD, Carbonaceous 05 Day, 20C (80082) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	15.0 Monthly Average	22.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
BOD, Carbonaceous 05 Day, 20C (80082) Raw Sew/Influent	(Report) Monthly Average	(Report) Weekly Average	lbs/day	****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
BOD, Carb-5 Day, 20 Deg C, Percent Remvl (80091) Percent Removal	****	****	****	85.0 Monthly Average Minimum	****	****	%	Monthly	Calculated	Not Seasonal
Solids, Suspended Percent Removal (81011) Percent Removal	****	****	****	85.0 Monthly Average Minimum	****	****	%	Monthly	Calculated	Not Seasonal

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

4. DSN 0031: Treated Domestic Wastewater - Holding Pond to Cahaba River (HCR)

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 003, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Flow Rate (00058) See Notes (3, 4) Instream Monitoring	*****	*****	*****	100 Minimum Daily	*****	(Report) Maximum Daily	CFS	Daily	Continuous	Not Seasonal
Oxygen, Dissolved (DO) (00300) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	*****	mg/l	3X Weekly test	Grab	Not Seasonal
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	9.0 Maximum Daily	S.U.	3X Weekly test	Grab	Not Seasonal
Solids, Total Suspended (00530) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	30.0 Monthly Average	45.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	3.0 Monthly Average	4.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	8.0 Monthly Average	12.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	Monthly	24-Hr Composite	Not Seasonal
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	0.043 Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	S
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	W
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Daily	Continuous	Not Seasonal
Chlorine, Total Residual (50060) See note (5) Effluent Gross Value	*****	*****	*****	*****	0.15 Monthly Average	0.26 Maximum Daily	mg/l	3X Weekly test	Grab	Not Seasonal
E. Coli (51040) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	col/100mL	Weekly	Grab	Not Seasonal
BOD, Carbonaceous 05 Day, 20C (80082) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	15.0 Monthly Average	22.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) S = Summer (April – October)

W = Winter (November - March)

(3) There shall be no discharge from Outfall 0031 when the stream flow in the Cahaba River is less than 100 cfs.

(4) Stream flow monitoring is only required on days when discharges occur (See Part IV.H)

(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.

The daily stream flow should be recorded for each day's discharge incidence. Records of daily stream flow should be kept on site. Summary data should be reported on the monthly DMR forms provided by ADEM.

5. DSN 003T: Holding Pond to Cahaba River Toxicity

This is an administrative outfall designation. Outfall 003T is the same physical outfall as Outfall 0031. Discharge from this outfall shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Toxicity, Ceriodaphnia Chronic (61426) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	Quarterly	24-Hr Composite	Not Seasonal
Toxicity, Pimephales Chronic (61428) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	Quarterly	24-Hr Composite	Not Seasonal

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

- (1) Sample Frequency – See also Part I.B.2
- (2) See Permit Requirements for Effluent Toxicity Testing in Part IV.B.

6. DSN 004S & 005S: 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 Outfalls 004S & 005S, which are described more fully in the Permittee's application as storm water outfalls located at the wastewater treatment plant. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
				(Report) Minimum Daily		(Report) Maximum Daily				
pH (00400) Storm Water	*****	*****	*****	(Report) Minimum Daily	*****	(Report) Maximum Daily	S.U.	Annually	Grab	Not Seasonal
Solids, Total Suspended (00530) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Oil & Grease (00556) Storm Water	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Nitrogen, Ammonia Total (As N) (00610) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Nitrogen, Kjeldahl Total (As N) (00625) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Phosphorus, Total (As P) (00665) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Flow, In Conduit or Thru Treatment Plant (50050) Storm Water	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Annually	Calculated	Not Seasonal
E. Coli (51040) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	col/100mL	Annually	Grab	Not Seasonal
BOD, Carbonaceous 05 Day, 20C (80082) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) See Permit Requirements for Stormwater in Part IV.G

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" or "*B" 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" or "*B" 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) 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 first complete calendar quarter 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. electronically.
- (1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's electronic 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 Department's electronic 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 Department's electronic system resuming operation, the permittee shall enter the data into the Department's electronic system, unless an alternate timeframe is approved by the Department. A comment should be included on the electronic 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.
 - (3) 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.

- (4) 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.
 - (5) 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.
 - (6) 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
Office of Water Services, Water 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
Office of Water Services, Water 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 an electronic system for notification and submittal of SSO reports. Except as noted below, the Permittee must submit all SSO reports electronically in the Department's electronic system. If requested, waivers from utilization of the electronic system shall be submitted in accordance with ADEM Admin. Code 335-6-1-.04(6). The Department's electronic reporting system shall be utilized unless a written waiver has been granted. A waiver is not effective until receipt of written approval from the Department. Utilization of verbal notifications and hard copy SSO report submittals is allowed only if approved in writing by the Department. The Permittee shall include in the SSO reports the information requested by ADEM Form 415. In addition, the Permittee shall include the latitude 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 electronic system for SSO reports, an account may be created at <https://aepacs.adem.alabama.gov/nviro/ncore/external/home>. If the electronic 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 electronic system resuming operation, the Permittee shall enter the data into the electronic 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); 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

- 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 Best Management Practices (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

- a. 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, 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, 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 301(c), 301(g), 301(h), 301(k), or 316(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; or

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.
- 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;
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) That did not commence the discharge of pollutants 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 (POTW)** – 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;
 - 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 001 and 003.
- b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **100 percent** effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year low flow period.
- 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. At Outfall 001, toxicity tests shall be conducted for the duration of this permit in the months of **April and December**. At Outfall 003, toxicity tests shall be conducted on a **Quarterly** basis for the duration of this permit. Should results from the Annual Toxicity test indicate that Outfall 001 or Outfall 003 exhibits chronic toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.4.a.

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. 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)
 - (i) Name of firm
 - (ii) Telephone number
 - (iii) 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
 - (2) Sampling point
 - (3) Sample collection dates and times (to include composite sample start and finish times)
 - (4) Sample collection method
 - (5) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
 - (6) Lapsed time from sample collection to delivery
 - (7) Lapsed time from sample collection to test initiation
 - (8) Sample temperature when received at the laboratory
 - (9) Dilution Water
 - (10) Source
 - (11) Collection/preparation date(s) and time(s)
 - (12) Pretreatment (if applicable)
 - (13) 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

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" 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" 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. 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 the following: <http://adem.alabama.gov/alEnviroRegLaws/files/Division6Vol1.pdf> and <http://adem.alabama.gov/wqmap>.
- (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)
 - (i) 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.

F. 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.

G. MAJOR SOURCE STORMWATER 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.G.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.

H. HYDROGRAPH CONTROL RELEASE SPECIAL REQUIREMENTS

1. Monitoring Frequency

- a. The monitoring frequency for effluent samples, except as otherwise noted, shall be once per discharge incidence, with the required minimum of **three** per week. Results should be recorded for each discharge incidence on the daily DMR forms provided by ADEM. Summary data should be submitted on the monthly DMR forms provided by ADEM.

2. Discharge Requirements

- a. There shall be no discharge from Outfall 0031 to the Cahaba River when the stream flow is less than 100 cubic feet per second.
- b. The allowable waste discharge shall be calculated using the following formulas:
 - Up to 3 MGD when the stream flow in the Cahaba River is 100 cfs up to, but not including, 200cfs
 - Up to 10 MGD when the stream flow in the Cahaba River is 200 cfs or higher.
- c. Effluent flow to the **Cahaba River** shall be recorded instantaneously and reported for each day's discharge incidence on daily DMR forms provided by ADEM. Summary data should be submitted on the monthly DMR forms provided by ADEM.
- d. United States Geological Survey (USGS) stream gauge #02423425 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.
- e. 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.
- f. The daily stream flow, as measured by the USGS stream gauge, should be recorded for each day's discharge incidence on daily DMR forms provided by ADEM. Records of daily stream flow should be kept on site. The discharge flow from Outfall 0031 shall be subtracted from the gauge reading when determining the stream flow in the Cahaba River. Summary data should be reported on the monthly DMR forms provided by ADEM.

Alabama Department of Environmental Management Daily Discharge Monitoring Report (DMR)

Permittee Name: City of Hoover
Mailing Address: 100 Municipal Lane
 Hoover, AL 35216
Facility Name: Inverness WWTP
Physical Location: 3308 Afton Circle
Receiving Stream: Cahaba River
HCR Equations: Allowable Waste flow (MGD) < 3 MGD if Stream Flow > 100 cfs < 200 cfs
 Allowable Waste flow (MGD) < 10 MGD if Stream Flow ≥ 200 cfs

Permit Number: AL0025852
County: Shelby
Monitoring Point: 0031
Month: _____
No Discharges During this Month: _____

PARAMETER	Stream Flow	Waste Flow (Discharge to Receiving Stream)	Calculated Waste Flow
Parameter Code	00058 (Instream)	50050 (Effluent)	
MIN	100.00	-----	
MAX	-----		See HCR eqn.
FREQ	daily for each discharge incidence	daily for each discharge incidence	
UNITS	cfs	MGD	MGD
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
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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 persons 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 _____

Date _____

Printed Name & Title of Responsible Official _____

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

Date Prepared: January 5, 2024

By: Dustin Stokes

NPDES Permit No. AL0025852

1. Name and Address of Applicant:

City of Hoover
100 Municipal Lane
Hoover, AL 35216

2. Name and Address of Facility:

Inverness WWTP
3308 Afton Circle
Hoover, AL 35242

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

Discharge Type(s): Hydrograph Controlled Release (HCR), Surface Water
Treatment Method(s): Mechanical (WWTP)

4. Applicant's Receiving Waters

Feature ID	Receiving Water	Classification
001	Cahaba River	Fish and Wildlife (F&W)
003	Cahaba River	Fish and Wildlife (F&W)
004	UT to Cahaba River	Fish and Wildlife (F&W)
005	UT to Cahaba River	Fish and Wildlife (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:

Jeffery W. Kitchens, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

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:

Jeffery W. Kitchens, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

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 36110-2400

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: **AL0025852**

Date: January 08, 2024
Revised: March 11, 2024

Permit Applicant: City of Hoover
100 Municipal Lane
Hoover, AL 35216

Location: **Inverness WWTP**
3308 Afton Circle
Hoover, AL 35242

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

Basis for Limitations:

Water Quality Model: Reissuance with no modification: Instream calculation at 7Q10: Toxicity based: Secondary Treatment Levels: Other (described below):	Outfalls 0011 and 0031 – DO, NH ₃ -N, TKN, CBOD Outfall 0011 - DO, pH, NH ₃ -N, TP, E. Coli, TSS, TKN, CBOD, CBOD % Removal, TSS % Removal Outfall 0021 – pH, TSS, NH ₃ -N, NO ₃ -N, TP, E. coli, TKN, CBOD, CBOD % Removal, TSS % Removal Outfall 0031 – Flow, DO, pH, TSS, NH ₃ -N, TP, TKN, TRC, CBOD 100% TRC TSS, TSS % Removal, CBOD % Removal pH, E. coli, TP, NH ₃ -N (outfall 0021), NO ₃ -N (outfall 0021), TNK (outfall 0021), CBOD (outfall 0021)
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Design Flow in Million Gallons per Day: 1.2 MGD

Major: Yes

Description of Discharge:

Feature ID	Description	Receiving Water	WBC	303(d)	TMDL
001	Treated Domestic Wastewater - Plant to Cahaba River	Cahaba River	Fish and Wildlife (F&W)	No	Yes
002	Treated Domestic Wastewater - Plant to Holding Pond	N/A	N/A	N/A	N/A
003	Treated Domestic Wastewater - Holding Pond to Cahaba River (HCR)	Cahaba River	Fish and Wildlife (F&W)	No	Yes
004	Storm water	UT to Cahaba River	Fish and Wildlife (F&W)	No	Yes
005	Storm water	UT to Cahaba River	Fish and Wildlife (F&W)	No	Yes

Discussion:

This is a permit reissuance due to expiration. This permit contains three outfalls for the discharge of wastewater from the facility. Outfall 0011 is a direct discharge from the WWTP to the Cahaba River that is allowed only during the months of December – April. Outfall 0021 is a discharge from the WWTP to the facility’s holding pond. Outfall 0031 is a hydrograph controlled release (HCR) from the facility’s holding pond, with the allowable discharge dependent on the stream flow in the Cahaba River. No discharge is allowed from this outfall when the stream flow is less than 100 cfs. Up to 3 MGD can be discharged when the stream flow is 100 cfs up to, but not including, 200 cfs. Up to 10 MGD can be discharged when the stream flow is 200 cfs or higher.

The section of the Cahaba River containing the discharge is Tier I stream and is not listed on the current 303(d) list. The imposed TP limits are consistent with the Cahaba River Watershed Nutrient TMDL and the E. coli limits are consistent with the Cahaba River Watershed Pathogens (E. coli) TMDL, which was approved in August 2013. The pathogen limits imposed in the permit are consistent with Alabama’s water quality standards and this discharge should not contribute to the pathogen impairment in the Cahaba River. The Cahaba River also has a TMDL for Siltation and Habitat Alteration which was approved in August 2013. The TMDL indicates that TSS associated with WWTPs is typically comprised primarily of organic matter and is not considered to be significantly impacting the Cahaba River with respect to sediment impairment and was not included in the WLA of the TMDL.

The unnamed tributaries (UTs) to the Cahaba River are not listed on the most recent 303(d) list. The facility’s storm water discharge is consistent with the assumptions in the TMDLs and are not expected to contribute to the impairments. Additionally, the facility is required to develop and implement a Storm Water Pollution Prevention Plan, which should help minimize pollutants in the storm water.

Storm water runoff monitoring is being imposed by this permit based on 40 CFR Part 122. The designated outfalls for storm water runoff monitoring are 004S and 005S. Although the Permit application states that the storm water receiving stream is the Cahaba River, the ADEM Water Quality Branch has determined the receiving streams are UTs to the Cahaba River. Storm water runoff is to be monitored annually.

Outfalls 0011 and 0031

Limits for Five Day Carbonaceous Biochemical Oxygen Demand (CBOD), Total Ammonia-Nitrogen (NH₃-N), Total Kjeldahl Nitrogen (TKN), and Dissolved Oxygen (DO) were developed based on a Waste Load Allocation (WLA) model that was completed by ADEM’s Water Quality Branch (WQB) on March 3, 2010. The monthly average limits for Outfall 0011 are as follows: CBOD = 4.0 mg/L, NH₃-N = 1.0 mg/L, and TKN = 2.0 mg/L. The monthly average limits for Outfall 0031 are as follows: CBOD = 15.0 mg/L, NH₃-N = 3.0 mg/L, and TKN = 8.0 mg/L. The daily minimum DO limit is 6.0 mg/L for both Outfalls 0011 and 0031.

This discharge is included as a point source in the Cahaba River Watershed Nutrient TMDL, which was approved by EPA in October 2006. The TMDL states that major dischargers must attain a growing season (April – October) Total Phosphorus (TP) limit of 0.043 mg/l.

The pH limits were developed in accordance with the water-use classification of the receiving stream. The daily minimum and daily maximum pH limits for Outfall 0011 are 6.0 S.U. and 8.5 S.U., respectively. The daily minimum and daily maximum pH limits for Outfall 0031 are 6.0 S.U. and 9.0 S.U., respectively. The monthly average and daily maximum TRC limits are based on the United States Environmental Protection Agency’s (EPA’s) recommended water quality values and on the current Toxicity Rationale, which considers available dilution in the receiving stream. For Outfall 0011, the TRC limits are 0.017 mg/L (monthly average) and 0.029 mg/L (daily maximum). The increased TRC limitations are not backsliding since the increase would result in water quality standards being obtained and the revision is consistent with the Department’s anti-degradation policy. For Outfall 0031, the TRC limits are 0.15 mg/L (monthly average) and 0.26 mg/L (daily maximum). The TRC limits for Outfall 0031 were calculated based on the receiving stream and discharge flow rates given in the HCR requirements. In accordance with a letter dated 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 imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since the section of the Cahaba River containing the discharge is classified as Fish & Wildlife, the limits for Outfall 0011, which

allows for discharge during the months December – April, are 548 col/100ml (monthly average) and 2507 col/100ml (daily maximum). The Department is not imposing limitations at Outfall 0031 since the permit contains limitations on the discharge to the holding pond (Outfall 0021), and the Permittee has indicated that the pond is home to waterfowl that may contribute to the E. Coli leaving the pond through Outfall 0031. The Permittee will be required to continue monitoring of E. coli at Outfall 0031, however.

For both Outfalls 0011 and 0031, the monthly average Total Suspended Solids (TSS) limit of 30 mg/l is based on the requirements of 40 CFR part 133.102 regarding Secondary Treatment. For Outfall 0011, both the TSS percent removal and CBOD percent removal limits of 85.0% are also based on the requirements of 40 CFR part 133.102 regarding Secondary Treatment.

The Permittee is also required to monitor and report effluent test results for Nitrite plus Nitrate-Nitrogen (NO₂+NO₃-N). Monitoring for this nutrient-related parameter 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 additional nutrient limits on this discharge.

For both Outfalls 0011 and 0031, 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 100% is required for Outfall 0011 during the months of December and April and for Outfall 0031 on a quarterly basis.

The Department completed a reasonable potential analysis (RPA) of the discharge based on laboratory data provided in the Permittee's application, in-stream background data, and DMR data. The RPA indicates whether pollutants in treated effluent have the potential to contribute to excursions of Alabama's in-stream water quality standards. Background data utilized in the RPA was from monitoring station CARJ-5 provided by the Department's WQB. Based on the data submitted by the Permittee, it appears no reasonable potential exists for Copper and Mercury, which were in the previous permit. Therefore, the limits for Copper and monitoring for Mercury were removed. The removal of Copper limits and Mercury monitoring is not backsliding since the removal would result in water quality standards being obtained and the revision is consistent with the Department's anti-degradation policy.

For Outfall 0011, the monitoring frequency for DO, pH, TSS, NH₃-N, TKN, TP, TRC, E. coli, and CBOD thrice per week. For Outfall 0031, the monitoring frequency for DO, pH, TSS, NH₃-N, TKN, TP, TRC, and CBOD thrice per week. For Outfall 0031, monitoring frequency for E. coli is once per week. The frequency of monitoring for NO₂+NO₃-N is once per month for Outfalls 0011 and 0031. TSS percent removal and CBOD percent removal are to be calculated monthly for Outfall 0011. Flow is to be monitored continuously, 7 days per week at Outfalls 0011 and 0031. For Outfall 0031, Flow Rate is to be monitored on days when discharge occurs.

Outfall 0021

The limits imposed at Outfall 0021, the discharge from the treatment plant to the holding pond, were developed based upon Best Professional Judgement. The monthly average limits are as follows: TSS = 30.0 mg/L, NH₃-N = 3.0 mg/L, NO₃-N = 7.5 mg/L, TKN = 10.0 mg/L, TP = 1.0 mg/L, and CBOD = 15.0 mg/L. The daily minimum and daily maximum pH limits are 6.0 S.U. and 9.0 S.U., respectively. The monthly average and daily maximum E. coli limits are 126 col/100 mL and 298 col/100 mL, respectively.

The daily minimum and daily maximum pH limits for Outfall 0021 are 6.0 S.U. and 9.0 S.U., respectively.

At Outfall 0021, the monitoring frequency for pH, TSS, NH₃-N, NO₃-N, TKN, TP, E. coli, and CBOD thrice per week. TSS percent removal and CBOD percent removal are to be calculated monthly. Flow is to be monitored continuously, seven days per week.

Prepared by: Dustin Stokes

3/11/2024 Revision:

The Permit Cover page was corrected to add the storm water receiving stream “UT to Cahaba River”.

Prepared by: Dustin Stokes

Waste Load Allocation Summary

Page 1

REQUEST INFORMATION

Request Number:

1818

From: In Branch/Section

Date Submitted 12/30/1899 Date Required 12/30/1899 FUND Code

Date Permit application received by NPDES program

Receiving Waterbody Cahaba River

Previous Stream Name

Facility Name Hoover Inverness WWTP (Name of Discharger-WQ will use to file)

Previous Discharger Name

River Basin Cahaba Outfall Latitude 33.412880 (decimal degrees)

*County Shelby Outfall Longitude -86.729332 (decimal degrees)

Permit Number AL0025852 Permit Type CONVERSION

Permit Status Active

Type of Discharger MUNICIPAL

Do other discharges exist that may impact the model?

Yes No

If yes, impacting dischargers names.

Hoover Inverness
Jefferson County Cahaba River
Hoover Riverchase
Cahaba Mobile Home Estates
Trussville

Impacting dischargers permit numbers.

Existing Discharge Design Flow

MGD

Proposed Discharge Design Flow

MGD

Note: The flow rates given should be those requested for modeling.

Comments included

Information Verified By CPR

Year File Was Created 2010

Response ID Number 1186

Lat/Long Method GPS

12 Digit HUC Code 031502020204

Use Classification F&W

Site Visit Completed? Yes No

Date of Site Visit 3/8/2010

Waterbody Impaired?

Date of WLA Response 4/8/2010

Antidegradation Yes No

Approved TMDL?

Waterbody Tier Level Tier I

Use Support Category 4A

Approval Date of TMDL 10/26/2006

Waste Load Allocation Information

Modeled Reach Length 105

Miles

Date of Allocation 3/3/2010

Name of Model Used RIV1

Allocation Type 2 Seasons

Model Completed by Tetra Tech

Type of Model Used Calibrated / Verified

Allocation Developed by Water Quality Branch

Waste Load Allocation Summary

Annual Effluent Limits	Conventional Parameters				Other Parameters						
	Qw	1.2	MGD	Qw	1.2	MGD	Qw	1.2	MGD	Qw	MGD
	Season	Winter		Season	Year-round		Season	Growing		Season	
	From	Dec		From	Jan		From	Apr		From	
	Through	Apr		Through	Dec		Through	Oct		Through	
CBOD5	CBOD5	4	mg/L	CBOD5	15	mg/L	TP	0.043	mg/L	TP	
NH3-N	NH3-N	1	mg/L	NH3-N	3	mg/L	TN			TN	
TKN	TKN	2	mg/L	TKN	8	mg/L	TSS			TSS	
D.O.	D.O.	6	mg/L	D.O.	6	mg/L					

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

Water Quality Characteristics Immediately Upstream of Discharge				
Parameter	Summer		Winter	
CBODu		mg/l		mg/l
NH3-N		mg/l		mg/l
Temperature		°C		°C
pH		su		su

Hydrology at Discharge Location

Drainage Area Qualifier	Drainage Area	200.6	sq mi
Exact	Stream 7Q10	0	cfs
	Stream 1Q10	0	cfs
	Stream 7Q2	1.93	cfs
	Annual Average	285	cfs

Method Used to Calculate

ADEM Estimate w/USGS Gage Data
ADEM Estimate w/USGS Gage Data
ADEM Estimate w/USGS Gage Data
ADEM Estimate w/USGS Gage Data

Comments and/or Notations

This is a calibrated/verified model completed by Tetra Tech for DO. It employed a 3-year time frame from 1999 through 2001. Critical conditions occurred during the drought year of 2000. Nutrient TMDL completed in October 2006. The facility can discharge continuously in winter (Dec - Apr) with a 1.2 mgd design flow. It can discharge from the HCR holding pond year-round. At 100 cfs streamflow up to, but not including, 200 cfs, it can discharge up to 3 mgd; at 200 cfs or greater, it can discharge up to 10 mgd. The Total Phosphorus (TP) limit of 0.043 mg/L is established according to the Final Cahaba River Nutrient TMDL dated October 26, 2006 and is applied as a monthly average limit for the months of April through October. Implementation of the TP limit will be based on a compliance schedule established by ADEM's NPDES Program. The facility should monitor for TP monthly from Nov through March.

LANCE R. LEFLEUR
DIRECTOR



KAY IVEY
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 21, 2023

MEMORANDUM

TO: Dustin Stokes
Industrial/Municipal Branch

FROM: Hayden Willis
Water Quality Branch

RE: Inverness WWTP (AL0025852)

As requested, the Water Quality Branch has reviewed the hydrology at the Inverness WWTP discharge location to determine if there is additional flow from any upstream wastewater treatment facilities that was not included in the low-flow statistics provided in the 2010 WLA. The low-flow estimates that include the upstream WWTP (i.e., Riverview WWTP, AL0045969) flows are shown in the table below.

Inverness WWTP Discharge Location Low-Flow Estimates with Upstream WWTP Flow (cfs)	
7Q ₁₀ + WWTP Flow	0.96
7Q ₂ + WWTP Flow	4.05
1Q ₁₀ + WWTP Flow	0.72

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)

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	Inverness WWTP (Outfall 0011)	
NPDES Permit Number:	AL0025852	
Receiving Stream:	Cahaba River	
Facility Design Flow (Q _w):	1.200 MGD	
Receiving Stream 7Q ₁₀ :	0.960 cfs	7Q10 includes flow from from upstream discharger(s).
Receiving Stream 1Q ₁₀ :	0.720 cfs	1Q10 includes flow from from upstream discharger(s).
Winter Headwater Flow (WHF):	4.05 cfs	
Summer Temperature for CCC:	28 deg. Celsius	
Winter Temperature for CCC:	18 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.110 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.

$$\text{Stream Dilution Ration (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 65.92\%$$

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.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w} = 65.92\% \quad \text{Effluent-Dominated, CCC Applies}$$

$$\begin{aligned} \text{Criterion Maximum Concentration (CMC):} & \quad \text{CMC} = 0.411 / (1 + 10^{(7.204 - \text{pH})}) + 58.4 / (1 + 10^{(\text{pH} - 7.204)}) \\ \text{Criterion Continuous Concentration (CCC):} & \quad \text{CCC} = [0.0577 / (1 + 10^{(7.688 - \text{pH})}) + 2.487 / (1 + 10^{(\text{pH} - 7.688)})] * \text{Min}[2.85, 1.45 * 10^{(0.028 * (25 - T))}] \end{aligned}$$

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.48 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.72 mg/l

$$\begin{aligned} \text{Summer NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} \\ &= \mathbf{3.8 \text{ mg/l NH}_3\text{-N at 7Q}_{10}} \end{aligned}$$

$$\begin{aligned} \text{Winter NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} \\ &= \mathbf{14.8 \text{ mg/l NH}_3\text{-N at Winter Flow}} \end{aligned}$$

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.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	1.00 mg/l NH₃-N	3.80 mg/l NH₃-N
Winter	3.00 mg/l NH₃-N	14.80 mg/l NH₃-N

Summer: The DO based limit of 1.00 mg/l NH₃-N applies.

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

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)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
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
<u>Enterococci (applies to Coastal)</u>		
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:	0.017 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.029 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: Dustin Stokes Date: 12/28/2023

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	Inverness WWTP (Outfall 0011)	
NPDES Permit Number:	AL0025852	
Receiving Stream:	Cahaba River	
Facility Design Flow (Q _w):	1.200 MGD	
Receiving Stream 7Q ₁₀ :	0.000 cfs	7Q10 excludes flow from from upstream discharger(s).
Receiving Stream 1Q ₁₀ :	0.000 cfs	1Q10 excludes flow from from upstream discharger(s).
Winter Headwater Flow (WHF):	1.93 cfs	
Summer Temperature for CCC:	28 deg. Celsius	
Winter Temperature for CCC:	18 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.110 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.	

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

$$\text{Instream Waste Concentration (IWC)} = \frac{Q_w}{7Q_{10} + Q_w} = 100.00\% \quad \text{Note: This number will be rounded up for toxicity testing purposes.}$$

Prepared By: Dustin Stokes Date: 1/23/2024

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	Inverness WWTP (Outfall 0031)	
NPDES Permit Number:	AL0025852	
Receiving Stream:	Cahaba River	
Facility Design Flow (Q _w):	3.000 MGD	
Receiving Stream 7Q ₁₀ :	100.000 cfs	
Receiving Stream 1Q ₁₀ :	75.000 cfs	
Winter Headwater Flow (WHF):	100.00 cfs	
Summer Temperature for CCC:	28 deg. Celsius	
Winter Temperature for CCC:	18 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.11 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 Ratio (SDR) is calculated using the 7Q₁₀ for all stream classifications.

$$\text{Stream Dilution Ratio (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 4.44\%$$

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.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w} = 4.44\% \quad \text{Effluent-Dominated, CCC Applies}$$

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

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.48 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.72 mg/l

$$\text{Summer NH}_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} = 53.5 \text{ mg/l NH}_3\text{-N at } 7Q_{10}$$

$$\text{Winter NH}_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} = \text{N/A.}$$

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.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	3.00 mg/l NH₃-N	53.50 mg/l NH₃-N
Winter	N/A.	N/A.

Summer: The DO based limit of 3.00 mg/l NH₃-N applies.
Winter limits are not applicable.

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

$$\text{Instream Waste Concentration (IWC)} = \frac{Q_w}{7Q_{10} + Q_w} = 4.44\% \quad \text{Note: This number will be rounded up for toxicity testing purposes.}$$

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)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
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
<u>Enterococci (applies to Coastal)</u>		
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:	0.25 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.43 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: Dustin Stokes Date: 12/29/2023

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	Inverness WWTP (Outfall 0031)	
NPDES Permit Number:	AL0025852	
Receiving Stream:	Cahaba River	
Facility Design Flow (Q _w):	10.000 MGD	
Receiving Stream 7Q ₁₀ :	200.000 cfs	
Receiving Stream 1Q ₁₀ :	150.000 cfs	
Winter Headwater Flow (WHF):	200.00 cfs	
Summer Temperature for CCC:	28 deg. Celsius	
Winter Temperature for CCC:	18 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.11 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.

$$\text{Stream Dilution Ration (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 7.18\%$$

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.

$$\begin{aligned} \text{Limiting Dilution} &= \frac{Q_w}{7Q_{10} + Q_w} \\ &= 7.18\% \quad \text{Effluent-Dominated, CCC Applies} \end{aligned}$$

$$\begin{aligned} \text{Criterion Maximum Concentration (CMC):} & \quad \text{CMC} = 0.411 / (1 + 10^{(7.204 - \text{pH})}) + 58.4 / (1 + 10^{(\text{pH} - 7.204)}) \\ \text{Criterion Continuous Concentration (CCC):} & \quad \text{CCC} = [0.0577 / (1 + 10^{(7.688 - \text{pH})}) + 2.487 / (1 + 10^{(\text{pH} - 7.688)})] * \text{Min}[2.85, 1.45 * 10^{(0.028 * (25 - T))}] \end{aligned}$$

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.48 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.72 mg/l

$$\begin{aligned} \text{Summer NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} \\ &= 33.1 \text{ mg/l NH}_3\text{-N at 7Q}_{10} \end{aligned}$$

$$\begin{aligned} \text{Winter NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} \\ &= \text{N/A.} \end{aligned}$$

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.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	3.00 mg/l NH₃-N	33.10 mg/l NH₃-N
Winter	N/A.	N/A.

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

Winter limits are not applicable.

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

$$\text{Instream Waste Concentration (IWC)} = \frac{Q_w}{7Q_{10} + Q_w} = 7.18\% \quad \text{Note: This number will be rounded up for toxicity testing purposes.}$$

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)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
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
<u>Enterococci (applies to Coastal)</u>		
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:	0.15 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.26 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: Dustin Stokes Date: 12/29/2023

Inverness WWTP
AL0025852

Sample Date	Mercury (ug/L)	Hardness (ug/L)	bis(2-Ethylhexyl)phthalate (ug/L)	Zinc (ug/L)	Total Phenolic Compounds (ug/L)
2/1/2023	0	126000	6.21	0	53
2/19/2023	0.0005				46
2/20/2023		141000	6.84	21.8	
3/20/2023	0.0005	140000	0	0	0
Maximum	0.0005	141000	6.84	21.8	53
Average	0.0003	135667	4.35	7.3	33

Form 2A NPDES		U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS
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SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))

Facility Information	1.1	Facility name Inverness WWTP (City of Hoover)		
	Mailing address (street or P.O. box) 100 Municipal Lane			
	City or town Hoover		State AL	ZIP code 35216
	Contact name (first and last) Michael McCary	Title Chief Operator	Phone number (205) 365-9813	Email address michael.mccary@clearwatersc
	Location address (street, route number, or other specific identifier) <input type="checkbox"/> Same as mailing address 3308 Afton Circle			
	City or town Hoover		State AL	ZIP code 35242
	1.2 Is this application for a facility that has yet to commence discharge? <input type="checkbox"/> Yes → See instructions on data submission requirements for new dischargers. <input checked="" type="checkbox"/> No			
Applicant Information	1.3	Is applicant different from entity listed under Item 1.1 above? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.4.		
	Applicant name City Of Hoover			
	Applicant address (street or P.O. box) 100 Municipal Lane			
	City or town Hoover		State AL	ZIP code 35216
	Contact name (first and last) Allan Rice	Title City Administrator	Phone number (205) 444-7541	Email address arice@hooveralabama.gov
	1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.) <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Both			
1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.) <input type="checkbox"/> Facility <input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Facility and applicant (they are one and the same)				
Existing Environmental Permits	1.6	Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)		
	Existing Environmental Permits			
	<input checked="" type="checkbox"/>	NPDES (discharges to surface water) AL0025852	<input type="checkbox"/>	RCRA (hazardous waste)
	<input type="checkbox"/>	PSD (air emissions)	<input type="checkbox"/>	Nonattainment program (CAA)
<input type="checkbox"/>	Ocean dumping (MPRSA)	<input type="checkbox"/>	Dredge or fill (CWA Section 404)	
		<input type="checkbox"/>	UIC (underground injection control)	
		<input type="checkbox"/>	NESHAPs (CAA)	
		<input type="checkbox"/>	Other (specify)	

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NPDES Permit Number
AL0025852

Facility Name
Inverness WWTP

Form Approved 03/05/19
OMB No. 2040-0004

Outfalls Other Than to Waters of the United States

Outfalls and Other Discharge or Disposal Methods

1.12	Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 1.14.		
1.13	Provide the location of each surface impoundment and associated discharge information in the table below.		
	Surface Impoundment Location and Discharge Data		
	Location	Average Daily Volume Discharged to Surface Impoundment	Continuous or Intermittent (check one)
		gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
1.14	Is wastewater applied to land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 1.16.		
1.15	Provide the land application site and discharge data requested below.		
	Land Application Site and Discharge Data		
	Location	Size	Average Daily Volume Applied
		acres	gpd
		acres	gpd
		acres	gpd
1.16	Is effluent transported to another facility for treatment prior to discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 1.21.		
1.17	Describe the means by which the effluent is transported (e.g., tank truck, pipe).		
1.18	Is the effluent transported by a party other than the applicant? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.20.		
1.19	Provide information on the transporter below.		
	Transporter Data		
	Entity name		Mailing address (street or P.O. box)
	City or town		State ZIP code
	Contact name (first and last)		Title
	Phone number		Email address

EPA Identification Number
AL0025852

NPDES Permit Number
AL0025852

Facility Name
Inverness WWTP

Form Approved 03/05/19
OMB No. 2040-0004

Outfalls and Other Discharge or Disposal Methods Continued	1.20	In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.			
	Receiving Facility Data				
	Facility name			Mailing address (street or P.O. box)	
	City or town			State	ZIP code
	Contact name (first and last)			Title	
	Phone number			Email address	
NPDES number of receiving facility (if any) <input type="checkbox"/> None			Average daily flow rate mgd		
Variance Requests	1.21	Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 1.23.			
	1.22	Provide information in the table below on these other disposal methods.			
	Information on Other Disposal Methods				
	Disposal Method Description	Location of Disposal Site	Size of Disposal Site	Annual Average Daily Discharge Volume	Continuous or Intermittent (check one)
N/A		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
Contractor Information	1.23	Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.) <input type="checkbox"/> Discharges into marine waters (CWA Section 301(h)) <input type="checkbox"/> Water quality related effluent limitation (CWA Section 302(b)(2)) <input checked="" type="checkbox"/> Not applicable			
	1.24	Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 2.			
Contractor Information	1.25	Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.			
	Contractor Information				
		Contractor 1	Contractor 2	Contractor 3	
	Contractor name (company name)	Clearwater Solutions			
	Mailing address (street or P.O. box)	2178 Moore's Mill Road			
	City, state, and ZIP code	Auburn, AL			
	Contact name (first and last)	Michael McCary			
	Phone number	(205) 365-9813			
Email address	michael.mccary@clearwaterso				
Operational and maintenance responsibilities of contractor	Maintain and Operate WWTP and Collection System				

SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))

Design Flow	Outfalls to Waters of the United States					
	2.1	Does the treatment works have a design flow greater than or equal to 0.1 mgd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 3.				
Inflow and Infiltration	2.2	Provide the treatment works' current average daily volume of inflow and infiltration.	Average Daily Volume of Inflow and Infiltration 10,000 gpd			
	Indicate the steps the facility is taking to minimize inflow and infiltration. We video 45,000 LF of sewer every year and plan rehab projects for pipe lining and MH rehab based on these videos. Projects are on-going.					
Topographic Map	2.3	Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Flow Diagram	2.4	Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Scheduled Improvements and Schedules of Implementation	2.5	Are improvements to the facility scheduled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 3.				
	Briefly list and describe the scheduled improvements.					
	1.					
	2.					
	3.					
	4.					
	2.6	Provide scheduled or actual dates of completion for improvements.				
Scheduled or Actual Dates of Completion for Improvements						
	Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
	1.					
	2.					
	3.					
	4.					
2.7	Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None required or applicable					
Explanation:						

SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))

Description of Outfalls	3.1	Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)					
		Outfall Number <u>001</u>		Outfall Number <u>002</u>		Outfall Number <u>003</u>	
	State	Alabama		Alabama		Alabama	
	County	Shelby		Shelby		Shelby	
	City or town	Hoover		Hoover		Hoover	
	Distance from shore	N/A ft.		N/A ft.		N/A ft.	
	Depth below surface	ft.		ft.		ft.	
	Average daily flow rate	0 mgd		0.9 mgd		8 mgd	
	Latitude	33° 24' 46." N <input type="checkbox"/>		33° 24' 39" N <input type="checkbox"/>		33° 24' 46." N <input type="checkbox"/>	
Longitude	86° 43' 45." W <input type="checkbox"/>		86° 43' 39" W <input type="checkbox"/>		86° 43' 45." W <input type="checkbox"/>		
Seasonal or Periodic Discharge Data	3.2	Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.4.					
	3.3	If so, provide the following information for each applicable outfall.					
		Outfall Number <u>003</u>		Outfall Number _____		Outfall Number _____	
	Number of times per year discharge occurs	1					
	Average duration of each discharge (specify units)	30 Days					
Average flow of each discharge	8 mgd		mgd		mgd		
Months in which discharge occurs	Jan - March						
Diffuser Type	3.4	Are any of the outfalls listed under Item 3.1 equipped with a diffuser? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 3.6.					
	3.5	Briefly describe the diffuser type at each applicable outfall.					
		Outfall Number _____		Outfall Number _____		Outfall Number _____	
Waters of the U.S.	3.6	Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.					

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EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP
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Form Approved 03/05/19
OMB No. 2040-0004

Receiving Water Description	3.7	Provide the receiving water and related information (if known) for each outfall.					
			Outfall Number ⁰⁰³ _____	Outfall Number _____	Outfall Number _____		
	Receiving water name	Cahaba River					
	Name of watershed, river, or stream system	Cahaba River					
	U.S. Soil Conservation Service 14-digit watershed code	Unknown					
	Name of state management/river basin	Cahaba River					
	U.S. Geological Survey 8-digit hydrologic cataloging unit code	Unknown					
	Critical low flow (acute)		cfs		cfs		cfs
	Critical low flow (chronic)		cfs		cfs		cfs
Total hardness at critical low flow		mg/L of CaCO ₃		mg/L of CaCO ₃		mg/L of CaCO ₃	
Treatment Description	3.8	Provide the following information describing the treatment provided for discharges from each outfall.					
			Outfall Number ⁰⁰³ _____	Outfall Number _____	Outfall Number _____		
	Highest Level of Treatment (check all that apply per outfall)	<input checked="" type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input checked="" type="checkbox"/> Secondary <input checked="" type="checkbox"/> Advanced <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify)			
	Design Removal Rates by Outfall						
	BOD ₅ or CBOD ₅		98 %		%		%
	TSS		95 %		%		%
	Phosphorus	<input type="checkbox"/> Not applicable	90 %	<input type="checkbox"/> Not applicable	%	<input type="checkbox"/> Not applicable	%
	Nitrogen	<input type="checkbox"/> Not applicable	94 %	<input type="checkbox"/> Not applicable	%	<input type="checkbox"/> Not applicable	%
Other (specify)	<input checked="" type="checkbox"/> Not applicable	%	<input type="checkbox"/> Not applicable	%	<input type="checkbox"/> Not applicable	%	

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Treatment Description Continued	3.9	Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.					
			Outfall Number <u>001</u>	Outfall Number <u>002</u>	Outfall Number <u>003</u>		
		Disinfection type	Ultraviolet	Ultraviolet	Ultraviolet		
		Seasons used	Year Around	Year Around	Year Around		
		Dechlorination used?	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No		

Effluent Testing Data	3.10	Have you completed monitoring for all Table A parameters and attached the results to the application package? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	3.11	Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.13.						
	3.12	Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points.						
			Outfall Number <u>003</u>	Outfall Number _____		Outfall Number _____		
			Acute	Chronic	Acute	Chronic	Acute	Chronic
		Number of tests of discharge water	4	4				
		Number of tests of receiving water	0	0				
	3.13	Does the treatment works have a design flow greater than or equal to 0.1 mgd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.16.						
	3.14	Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent? <input type="checkbox"/> Yes → Complete Table B, including chlorine. <input checked="" type="checkbox"/> No → Complete Table B, omitting chlorine.						
	3.15	Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
3.16	Does one or more of the following conditions apply? <ul style="list-style-type: none"> • The facility has a design flow greater than or equal to 1 mgd. • The POTW has an approved pretreatment program or is required to develop such a program. • The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E). <input checked="" type="checkbox"/> Yes → Complete Tables C, D, and E as applicable. <input type="checkbox"/> No → SKIP to Section 4.							
3.17	Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
3.18	Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No additional sampling required by NPDES permitting authority.							

EPA Identification Number AL0025852		NPDES Permit Number AL0025852		Facility Name Inverness WWTP		Form Approved 03/05/19 OMB No. 2040-0004		
Effluent Testing Data Continued	3.19	Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years?						
		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No		Complete tests and Table E and SKIP to Item 3.26.		
	3.20	Have you previously submitted the results of the above tests to your NPDES permitting authority?						
		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No		Provide results in Table E and SKIP to Item 3.26.		
	3.21	Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results.						
		Date(s) Submitted (MM/DD/YYYY)		Summary of Results				
		03/31/2022		Passed Additional data submission dates- 2/14/2018, 2/19/2019, 2/18/2020, 2/26/2021				
	3.22	Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity?						
	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		SKIP to Item 3.26.			
3.23	Describe the cause(s) of the toxicity:							
3.24	Has the treatment works conducted a toxicity reduction evaluation?							
	<input type="checkbox"/> Yes		<input type="checkbox"/> No		SKIP to Item 3.26.			
3.25	Provide details of any toxicity reduction evaluations conducted.							
3.26	Have you completed Table E for all applicable outfalls and attached the results to the application package?							
	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> Not applicable because previously submitted information to the NPDES permitting authority.					
SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))								
Industrial Discharges and Hazardous Wastes	4.1	Does the POTW receive discharges from SIUs or NSCIUs?						
		<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		SKIP to Item 4.7.		
	4.2	Indicate the number of SIUs and NSCIUs that discharge to the POTW.						
		Number of SIUs			Number of NSCIUs			
	4.3	Does the POTW have an approved pretreatment program?						
	<input type="checkbox"/> Yes		<input type="checkbox"/> No					
4.4	Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program?							
	<input type="checkbox"/> Yes		<input type="checkbox"/> No		SKIP to Item 4.6.			
4.5	Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7.							
4.6	Have you completed and attached Table F to this application package?							
	<input type="checkbox"/> Yes		<input type="checkbox"/> No					

EPA Identification Number AL0025852		NPDES Permit Number AL0025852		Facility Name Inverness WWTP		Form Approved 03/05/19 OMB No. 2040-0004	
Industrial Discharges and Hazardous Wastes Continued	4.7	Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.9.					
	4.8	If yes, provide the following information:					
		Hazardous Waste Number	Waste Transport Method (check all that apply)			Annual Amount of Waste Received	Units
			<input type="checkbox"/> Truck <input type="checkbox"/> Dedicated pipe	<input type="checkbox"/> Rail <input type="checkbox"/> Other (specify) _____			
			<input type="checkbox"/> Truck <input type="checkbox"/> Dedicated pipe	<input type="checkbox"/> Rail <input type="checkbox"/> Other (specify) _____			
			<input type="checkbox"/> Truck <input type="checkbox"/> Dedicated pipe	<input type="checkbox"/> Rail <input type="checkbox"/> Other (specify) _____			
	4.9	Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.					
	4.10	Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)? <input type="checkbox"/> Yes → SKIP to Section 5. <input type="checkbox"/> No					
	4.11	Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))							
CSO Map and Diagram	5.1	Does the treatment works have a combined sewer system? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 6.					
	5.2	Have you attached a CSO system map to this application? (See instructions for map requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No					
	5.3	Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No					

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP
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Form Approved 03/05/19
OMB No. 2040-0004

CSO Outfall Description	5.4	For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)		
		CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
	City or town			
	State and ZIP code			
	County			
	Latitude	° ' "	° ' "	° ' "
	Longitude	° ' "	° ' "	° ' "
	Distance from shore	ft.	ft.	ft.
Depth below surface	ft.	ft.	ft.	
CSO Monitoring	5.5	Did the POTW monitor any of the following items in the past year for its CSO outfalls?		
		CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
	Rainfall	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	CSO flow volume	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	CSO pollutant concentrations	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Receiving water quality	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	CSO frequency	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Number of storm events	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
CSO Events in Past Year	5.6	Provide the following information for each of your CSO outfalls.		
		CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
	Number of CSO events in the past year	events	events	events
	Average duration per event	hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated
	Average volume per event	million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated
Minimum rainfall causing a CSO event in last year	inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	

CSO Receiving Waters	5.7	Provide the information in the table below for each of your CSO outfalls.		
		CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
	Receiving water name			
	Name of watershed/ stream system			
	U.S. Soil Conservation Service 14-digit watershed code (if known)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown
	Name of state management/river basin			
	U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown
	Description of known water quality impacts on receiving stream by CSO (see instructions for examples)			

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement	6.1	In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.							
		Column 1	Column 2						
	<input checked="" type="checkbox"/>	Section 1: Basic Application Information for All Applicants	<input type="checkbox"/> w/ variance request(s)	<input type="checkbox"/> w/ additional attachments					
	<input checked="" type="checkbox"/>	Section 2: Additional Information	<input checked="" type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments	<input checked="" type="checkbox"/> w/ process flow diagram					
	<input checked="" type="checkbox"/>	Section 3: Information on Effluent Discharges	<input checked="" type="checkbox"/> w/ Table A <input checked="" type="checkbox"/> w/ Table B <input type="checkbox"/> w/ Table C	<input type="checkbox"/> w/ Table D <input type="checkbox"/> w/ Table E <input type="checkbox"/> w/ additional attachments					
	<input type="checkbox"/>	Section 4: Industrial Discharges and Hazardous Wastes	<input type="checkbox"/> w/ SIU and NSCIU attachments <input type="checkbox"/> w/ additional attachments	<input type="checkbox"/> w/ Table F					
	<input type="checkbox"/>	Section 5: Combined Sewer Overflows	<input type="checkbox"/> w/ CSO map <input type="checkbox"/> w/ CSO system diagram	<input type="checkbox"/> w/ additional attachments					
	<input checked="" type="checkbox"/>	Section 6: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments						
6.2	<p>Certification Statement</p> <p><i>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.</i></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name (print or type first and last name)</td> <td>Official title</td> </tr> <tr> <td>Allan Rice</td> <td>City Administrator</td> </tr> <tr> <td>Signature </td> <td>Date signed 2/27/23</td> </tr> </table>			Name (print or type first and last name)	Official title	Allan Rice	City Administrator	Signature 	Date signed 2/27/23
Name (print or type first and last name)	Official title								
Allan Rice	City Administrator								
Signature 	Date signed 2/27/23								

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand <input type="checkbox"/> BOD ₅ or <input checked="" type="checkbox"/> CBOD ₅ (report one)	4.3	mg/L	3.3	mg/L	16	SM 5210 B	MPL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Fecal coliform	100	col/100mL	14	col/100mL	16	SM 1604	COL/100mL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Design flow rate	4.36	MGD	8.30	MGD	40		
pH (minimum)	6.63	SU					
pH (maximum)	7.32	SU					
Temperature (winter)	21.1	Deg C	20.5	Deg C	16		
Temperature (summer)		Deg C		Deg C			
Total suspended solids (TSS)	24.4	mg/L	9.1	mg/L	16	SM 2540 D	MPL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)	.083	mg/L	0.03	mg/L	16	SM 4500 NH3	MPL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorine (total residual, TRC) ²							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dissolved oxygen	9.63	mg/L	8.38	mg/L	16	Probe	MPL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Nitrate/nitrite	10.6	mg/L	3.4	mg/L	16	SM 4502 NO2/NO3	<input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Kjeldahl nitrogen	3.9	mg/L	1.3	mg/L	16	SM 4500 Norg	MPL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Oil and grease							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phosphorus	0.194	mg/L	0.08	mg/L	16	SM 4500 P	MPL <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Total dissolved solids							<input type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

² Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

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EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Metals, Cyanide, and Total Phenols							
Hardness (as CaCO ₃)	141000	ug/L	133666	ug/L	3	E200.9	2000 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Antimony, total recoverable	Not Detected (ND)	ug/L	ND	ug/L	3	E200.9	60.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Arsenic, total recoverable	ND	ug/L	ND	ug/L	3	E200.9	10.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Beryllium, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Cadmium, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Chromium, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	10.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Copper, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	10.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Lead, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Mercury, total recoverable	ND	ug/L	ND	ug/L	3	E242.2	0.20 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Nickel, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	40.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Selenium, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	20.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Silver, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	10.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Thallium, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	10.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Zinc, total recoverable	ND	ug/L	ND	ug/L	3	E200.7	20.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Cyanide	ND	ug/L	ND	ug/L	3	SM 4500-CN-E	0.020 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Total phenolic compounds	0.053	ug/L	0.033	ug/L	3	E420.1	0.020 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Volatile Organic Compounds							
Acrolein	ND	ug/L	ND	ug/L	3	E624.1	0.100 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Acrylonitrile	ND	ug/L	ND	ug/L	3	E624.1	0.100 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Benzene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Bromoform	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL

RECEIVED

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Carbon tetrachloride	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorobenzene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorodibromomethane	ND	ug/L	ND	ug/L	3	E624.1	0.005 <input checked="" type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Chloroethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2-chloroethylvinyl ether	ND	ug/L	ND	ug/L	3	E624.1	20.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Chloroform	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Dichlorobromomethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,1-dichloroethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichloroethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
trans-1,2-dichloroethylene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,1-dichloroethylene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichloropropane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,3-dichloropropylene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Ethylbenzene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Methyl bromide	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Methyl chloride	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Methylene chloride	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,2,2-tetrachloroethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Tetrachloroethylene	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Toluene	105	ug/L	100	ug/L	3	E624.1	81-120 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,1-trichloroethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,2-trichloroethane	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Trichloroethylene	Not Detected (ND)	ug/L	Not Detected (ND)	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Vinyl chloride	ND	ug/L	ND	ug/L	3	E624.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Acid-Extractable Compounds							
p-chloro-m-cresol	ND	ug/L	ND	ug/L	3	E625.1	0.010 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2-chlorophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dichlorophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dimethylphenol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
4,6-dinitro-o-cresol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dinitrophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00500 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2-nitrophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
4-nitrophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00500 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Pentachlorophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00500 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Phenol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2,4,6-trichlorophenol	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Base-Neutral Compounds							
Acenaphthene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Acenaphthylene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Anthracene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Benzidine	ND	ug/L	ND	ug/L	3	E625.1	0.0100 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(a)anthracene	ND	ug/L	ND	ug/L	3	E625.1	0.0025 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(a)pyrene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
3,4-benzofluoranthene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Benzo(ghi)perylene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(k)fluoranthene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroethoxy) methane	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroethyl) ether	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroisopropyl) ether	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-ethylhexyl) phthalate	0.00684	ug/L	0.00435	ug/L	3	E625.1	0.00500 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
4-bromophenyl phenyl ether	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Butyl benzyl phthalate	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2-chloronaphthalene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
4-chlorophenyl phenyl ether	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Chrysene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
di-n-butyl phthalate	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
di-n-octyl phthalate	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Dibenzo(a,h)anthracene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichlorobenzene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,3-dichlorobenzene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,4-dichlorobenzene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
3,3-dichlorobenzidine	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Diethyl phthalate	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Dimethyl phthalate	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dinitrotoluene	ND	ug/L	ND	ug/L	3	E625.1	0.00500 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
2,6-dinitrotoluene	ND	ug/L	ND	ug/L	3	E625.1	0.00500 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 003
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OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method ¹	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
1,2-diphenylhydrazine	Not Detected (ND)	ug/L	Not Detected (ND)	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Fluoranthene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Fluorene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorobenzene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorobutadiene	ND	ug/L	ND	ug/L	3	E625.1	0.0100 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorocyclo-pentadiene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachloroethane	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Indeno(1,2,3-cd)pyrene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Isophorone	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Naphthalene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Nitrobenzene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
N-nitrosodi-n-propylamine	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
N-nitrosodimethylamine	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodiphenylamine	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Phenanthrene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
Pyrene	ND	ug/L	ND	ug/L	3	E625.1	0.00250 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL
1,2,4-trichlorobenzene	ND	ug/L	ND	ug/L	3	E625.1	5.0 <input checked="" type="checkbox"/> ML <input type="checkbox"/> MDL

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

TEST
①

March 01, 2023

Michael McCary
Clearwater Solutions
3308 Afton Circle
Hoover, AL 35242

RE: Project: Inverness WWTP Permit Renewal
Pace Project No.: 20268754

Dear Michael McCary:

Enclosed are the analytical results for sample(s) received by the laboratory on February 01, 2023. This report is a summary of the results based upon our understanding of your data quality objectives. Please contact us if itemized quality control results are needed. These results relate only to the samples included in this report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - New Orleans
- Pace Analytical Services - Allen

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Simpson

Cindy Simpson
cindy.simpson@pacelabs.com
(205)614-6630
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

CERTIFICATIONS

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20268754

Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC):
E-10268
Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Texas Commission on Env. Quality (NELAC):
T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Pace Analytical Services Dallas

400 West Bethany Dr Suite 190, Allen, TX 75013
Texas Certification T104704232-20-32
Florida Certification #: E871118
EPA# TX00074
Kansas Certification #: E-10388

Arkansas Certification #: 88-0647
Oklahoma Certification #: 8727
Louisiana Certification #: 30686
Iowa Certification #: 408

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20268754

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20268754001	Effluent composite 24	EPA 200.7	AJS	13	PASI-N
		EPA 245.2	ARW	1	PASI-N
		EPA 625.1	XLY	72	PASL-AT
20268754002	Effluent Grab	EPA 624.1	SLK	34	PASI-N
		EPA 420.1	ABW	1	PASI-N
		SM 4500-CN-E	ABW	1	PASI-N
20268754003	Trip Blank	EPA 624.1	SLK	34	PASI-N

PASI-N = Pace Analytical Services - New Orleans
PASL-AT = Pace Analytical Services - Allen

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20268754

Sample: Effluent composite 24 Lab ID: 20268754001 Collected: 02/01/23 08:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
Antimony	ND	ug/L	60.0	1	
Arsenic	ND	ug/L	10.0	1	
Beryllium	ND	ug/L	5.0	1	
Cadmium	ND	ug/L	5.0	1	
Chromium	ND	ug/L	10.0	1	
Copper	ND	ug/L	10.0	1	
Lead	ND	ug/L	5.0	1	
Nickel	ND	ug/L	40.0	1	
Selenium	ND	ug/L	20.0	1	
Silver	ND	ug/L	10.0	1	
Thallium	ND	ug/L	10.0	1	
Total Hardness	126000	ug/L	2000	1	
Zinc	ND	ug/L	20.0	1	
Mercury	ND	ug/L	0.20	1	
1,2,4,5-Tetrachlorobenzene	ND	mg/L	0.00250	1	
1,2,4-Trichlorobenzene	ND	mg/L	0.00250	1	
1,2-Dichlorobenzene	ND	mg/L	0.00250	1	
1,3-Dichlorobenzene	ND	mg/L	0.00250	1	
1,4-Dichlorobenzene	ND	mg/L	0.00250	1	
2,2'-Oxybis(1-chloropropane)	ND	mg/L	0.00250	1	
2,4,5-Trichlorophenol	ND	mg/L	0.00250	1	
2,4,6-Trichlorophenol	ND	mg/L	0.00250	1	
2,4-Dichlorophenol	ND	mg/L	0.00250	1	
2,4-Dimethylphenol	ND	mg/L	0.00500	1	
2,4-Dinitrophenol	ND	mg/L	0.00500	1	
2,4-Dinitrotoluene	ND	mg/L	0.00500	1	
2,6-Dinitrotoluene	ND	mg/L	0.00500	1	
2-Chloronaphthalene	ND	mg/L	0.00250	1	
2-Chlorophenol	ND	mg/L	0.00250	1	
2-Methylphenol(o-Cresol)	ND	mg/L	0.00500	1	
2-Nitrophenol	ND	mg/L	0.00250	1	
3&4-Methylphenol(m&p Cresol)	ND	mg/L	0.00250	1	
3,3'-Dichlorobenzidine	ND	mg/L	0.00500	1	
4,6-Dinitro-2-methylphenol	ND	mg/L	0.00500	1	
4-Bromophenylphenyl ether	ND	mg/L	0.00250	1	
4-Chloro-3-methylphenol	ND	mg/L	0.00250	1	
4-Chlorophenylphenyl ether	ND	mg/L	0.00250	1	
4-Nitrophenol	ND	mg/L	0.00500	1	
Acenaphthene	ND	mg/L	0.00250	1	
Acenaphthylene	ND	mg/L	0.00250	1	
Anthracene	ND	mg/L	0.00250	1	
Benzidine	ND	mg/L	0.0100	1	
Benzo(a)anthracene	ND	mg/L	0.00250	1	
Benzo(a)pyrene	ND	mg/L	0.00250	1	
Benzo(b)fluoranthene	ND	mg/L	0.00250	1	
Benzo(g,h,i)perylene	ND	mg/L	0.00250	1	
Benzo(k)fluoranthene	ND	mg/L	0.00250	1	
Butylbenzylphthalate	ND	mg/L	0.00250	1	
bis(2-Chloroethoxy)methane	ND	mg/L	0.00250	1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20268754

Sample: Effluent composite 24 Lab ID: 20268754001 Collected: 02/01/23 06:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
bis(2-Chloroethyl) ether	ND	mg/L	0.00250	1	
bis(2-Ethylhexyl)phthalate	0.00621	mg/L	0.00500	1	
Chrysene	ND	mg/L	0.00250	1	
Di-n-butylphthalate	ND	mg/L	0.00250	1	
Di-n-octylphthalate	ND	mg/L	0.00250	1	
Dibenz(a,h)anthracene	ND	mg/L	0.00250	1	
Diethylphthalate	ND	mg/L	0.00250	1	
Dimethylphthalate	ND	mg/L	0.00250	1	
Fluoranthene	ND	mg/L	0.00250	1	
Fluorene	ND	mg/L	0.00250	1	
Hexachloro-1,3-butadiene	ND	mg/L	0.00250	1	
Hexachlorobenzene	ND	mg/L	0.00250	1	
Hexachlorocyclopentadiene	ND	mg/L	0.0100	1	
Hexachloroethane	ND	mg/L	0.00250	1	
1,2-Diphenylhydrazine	ND	mg/L	0.00250	1	N2
Indeno(1,2,3-cd)pyrene	ND	mg/L	0.00250	1	
Isophorone	ND	mg/L	0.00250	1	
N-Nitroso-di-n-butylamine	ND	mg/L	0.00250	1	
N-Nitroso-di-n-propylamine	ND	mg/L	0.00250	1	
N-Nitrosodiethylamine	ND	mg/L	0.00250	1	
N-Nitrosodimethylamine	ND	mg/L	0.00250	1	
N-Nitrosodiphenylamine	ND	mg/L	0.00250	1	
Naphthalene	ND	mg/L	0.00250	1	
Nitrobenzene	ND	mg/L	0.00250	1	
Pentachlorobenzene	ND	mg/L	0.00250	1	
Pentachlorophenol	ND	mg/L	0.00500	1	
Phenanthrene	ND	mg/L	0.00250	1	
Phenol	ND	mg/L	0.00250	1	
Pyrene	ND	mg/L	0.00250	1	
Pyridine	ND	mg/L	0.00250	1	
Cresols (Total)	ND	mg/L	0.00750	1	
2,4,6-Tribromophenol (S)	51.8	%	29-132	1	
2-Fluorobiphenyl (S)	46.9	%	26-102	1	
2-Fluorophenol (S)	25.9	%	10-66	1	
Nitrobenzene-d5 (S)	42.4	%	15-106	1	
Terphenyl-d14 (S)	60.5	%	10-120	1	
Phenol-d6 (S)	17	%	10-54	1	

Sample: Effluent Grab Lab ID: 20268754002 Collected: 02/01/23 10:05

Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20268754

Sample: Effluent Grab		Lab ID: 20268754002	Collected: 02/01/23 10:05		
Parameters	Results	Units	Report Limit	DF	Qualifiers
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	M1
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	
1,2-Dichloroethane	ND	ug/L	5.0	1	
1,1-Dichloroethene	ND	ug/L	5.0	1	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	98	%	82-118	1	
Toluene-d8 (S)	102	%	81-120	1	
Dibromofluoromethane (S)	103	%	77-123	1	
Phenolics, Total Recoverable	0.053	mg/L	0.020	1	
Cyanide	ND	mg/L	0.020	1	

Sample: Trip Blank		Lab ID: 20268754003	Collected: 02/01/23 06:00		
Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	c3
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20268754

Sample: Trip Blank Lab ID: 20268754003 Collected: 02/01/23 06:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
1,2-Dichloroethane	ND	ug/L	5.0	1	
1,1-Dichloroethene	ND	ug/L	5.0	1	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	98	%.	82-118	1	
Toluene-d8 (S)	98	%.	81-120	1	
Dibromofluoromethane (S)	107	%.	77-123	1	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Inverness WWTP Permit Renewal

Pace Project No.: 20268754

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.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

ANALYTE QUALIFIERS

- | | |
|----|---|
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| N2 | Analyte reported using a calibration and validation based on Azobenzene (CAS 103-33-3). 1,2-Diphenylhydrazine decomposes into Azobenzene during the analysis. |
| c3 | Analysis of 2-chloroethyl vinyl ether was performed from a sample that was field preserved to pH < 2 with HCl. Acid preservation is not allowed for this parameter by the test method or for NPDES compliance per 40CFR Part 136. |

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed.

WO# : 20268754

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com>

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Clearwater Solutions -WW	Address: 100 Municipal Ln	Report To: A Jason Welch	Copy To:	Attention:	Company Name: 20268754
Birmingham, AL 35216	Email: jason.welch@hooveralabama.gov	Purchase Order #:	Project Name: Inverness WWTP Permit Renewal	Address:	Pace Quote:
Phone: NONE	Fax:	Order #: 1053556	Pace Project Manager: cindy.simpson@pacelabs.com	Pace Profile #: 18014	State / Location: AL
Requested Due Date:					

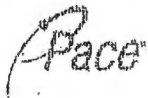


ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	Preservatives							Analytes Test Y/N	Requested Analysis: Filtered (Y/N)					Residual Chlorine (Y/N)			
				START		END			# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2SO3		Methanol	Other	625	200.7 - See list	Total Cyanide		Phenol Total	Volatile Organics 624	LL Hg
				DATE	TIME	DATE	TIME																		
1	Effluent Composite	WT	G-24	2/1/23	7:00 AM	2/1/23	8:00 AM										X	X							
2	Effluent Grab	WT	G	2/1/23	10:05													X	X	X					
3	Trip Blank	WT																		X					
4	Effluent (Spike, Spike/Duplicate)	WT	G																		X				
5	Field Blank	WT																				X			
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Barry Woodard	2/1	1310	M/Na Pace	2/1	1310	
	W/Na Pace	2/1	1505	W/Na Pace	2-1	1505	2.34 NY

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Barry Woodard						
SIGNATURE of SAMPLER: Barry Woodard						
DATE Signed: 2-1-23						

WO#: 20268754



1000 Riverbend Blvd., Suite F
 St. Rose, LA 70087

Project # 20

PM: CRS
 CLIENT: TU-CtrWtrSol
 Due Date: 02/15/23

Courier: Pace Courier Hired Courier Fed X UPS DHL USPS Customer Other

Custody Seal on Cooler/Box Present: YES NO Custody Seals Intact: YES NO

Samples on Ice: YES NO

Type of Ice: White Blue None

Date and Initials of person examining contents: PH 2-3

Temp should be 5°C *Temp must be measured from Temperature blank when present

Cooler #1 Thermometer Used: NMM13 Cooler Temp °C: (Observed) 2.3 (CF) 0.1 (Actual) 2.4
 Cooler #2 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____
 Cooler #3 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____
 Cooler #4 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____

Tracking #: _____

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	If added record lot #.: HNO3 _____ H2SO4 _____ Date: _____ Time: _____
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____



Pace Analytical Services, LLC
P.O. Box 907
Madisonville, KY 42431
270.821.7375
www.pacelabs.com

Certificate of Analysis 3023246

Cindy Simpson
Pace Analytical Services LLC Tuscaloosa
3516 Greensboro Ave
Tuscaloosa, AL 35401

Customer ID: 44-102111
Report Printed: 02/20/2023 14:46

Project Name: Cindy Simpson PM

Workorder: 3023246

Dear Cindy Simpson

Enclosed are the analytical results for samples received by the laboratory 02/09/2023 10:44.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Melissia Brown, Project Coordinator



Pace Analytical Services, LLC
 P.O. Box 907
 Madisonville, KY 42431
 270.821.7375
 www.pacelabs.com

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
3023246-01	Low Level Mercury/20268754002 Effluent Grab	Wastewater	02/01/2023 06:00	02/09/2023 10:44	Client
3023246-02	Low Level Mercury Field Blank/20268754004 Field Blank	Wastewater	02/01/2023 06:00	02/09/2023 10:44	Client

ANALYTICAL RESULTS

Lab Sample ID: **3023246-01**
 Description: **Low Level Mercury 20268754002 Effluent Grab**

Sample Collection Date Time: 02/01/2023 06:00
 Sample Received Date Time: 02/09/2023 10:44

Metals Analysis Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	ND	u	ng/L	0.5	0.4	EPA 1631E 2002	02/14/2023 10:50	02/15/2023 11:18	MLG

ANALYTICAL RESULTS

Lab Sample ID: **3023246-02**
 Description: **Low Level Mercury Field Blank 20268754004 Field Blank**

Sample Collection Date Time: 02/01/2023 06:00
 Sample Received Date Time: 02/09/2023 10:44

Metals Analysis Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	ND	u	ng/L	0.5	0.2	EPA 1631E 2002	02/14/2023 10:50	02/15/2023 12:19	MLG



Notes for work order 3023246

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- M1 Matrix spike recovery was high; the method control sample recovery was acceptable.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
MRL Minimum Reporting Limit
ND Not Detected
LCS Laboratory Control Sample
MS Matrix Spike
MSD Matrix Spike Duplicate
DUP Sample Duplicate
% Rec Percent Recovery
RPD Relative Percent Difference
> Greater than
< Less than



Metals Analysis Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch BCB1338 - Default Prep Metals

Blank (BCB1338-BLK1)

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 10:16

Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U

Blank (BCB1338-BLK2)

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 10:24

Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U

Blank (BCB1338-BLK3)

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 10:32

Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U

LCS (BCB1338-BS1)

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 11:48

Mercury	5.0	0.5	ng/L	5.00		101	77-123			
Mercury	5.0	0.5	ng/L	5.00		101	77-123			

Matrix Spike (BCB1338-MS1)

Source: 3020640-02

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 12:42

Mercury	6.0	0.5	ng/L	5.00	1.1	98.7	71-125			
Mercury	6.0	0.5	ng/L	5.00	1.1	98.7	71-125			

Matrix Spike (BCB1338-MS2)

Source: 3023246-01

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 12:57

Mercury	5.3	0.5	ng/L	5.00	0.3	100	71-125			
Mercury	5.3	0.5	ng/L	5.00	ND	105	71-125			

Matrix Spike Dup (BCB1338-MSD1)

Source: 3020640-02

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 12:49

Mercury	7.4	0.5	ng/L	5.00	1.1	126	71-125	20.4	24	M1
Mercury	7.4	0.5	ng/L	5.00	1.1	126	71-125	20.4	24	M1

Matrix Spike Dup (BCB1338-MSD2)

Source: 3023246-01

Prepared: 2/14/2023 10:50, Analyzed: 2/15/2023 13:05

Mercury	5.2	0.5	ng/L	5.00	0.3	98.9	71-125	1.03	24	
Mercury	5.2	0.5	ng/L	5.00	ND	104	71-125	1.03	24	

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E 2002 In Water	
Mercury	VA NELAC MDV (460210) KY Wastewater Mdv (00030)
Mercury	VA NELAC MDV (460210) KY Wastewater Mdv (00030) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431



Pace Analytical Services, LLC
P.O. Box 907
Madisonville, KY 42431
270.821.7375
www.pacelabs.com

Sample Acceptance Checklist for Work Order 3023246	
Shipped By: Fed Ex	Temperature: 2.30° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input type="checkbox"/>
Check if Collector Signature Present	<input type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Internal Transfer Chain of Custody

3023246



Page 1 of 16
Page 6 of 6



Samples Pre-Logged into eCOC.

State Of Origin: AL
 Cert. Needed: Yes No
 Owner Received Date: 2/1/2023

Results Requested By: 2/15/2023

Workorder: 20268754 Workorder Name: Inverness WWTP Permit Renewal

Report To		Subcontract To					Requested Analysis									
Cindy Simpson Pace Analytical Tuscaloosa 1168 Whigham Place Tuscaloosa, AL 35405 Phone (205)614-6630		Pace Analytical Madisonville 825 Industrial Rd Madisonville, KY 42431 Phone 270-824-2211					Low Level Mercury									
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	eCOC	Preserved									LAB USE ONLY
1	Effluent Grab	PS	2/1/2023 06:00	20268754002	Water	1										X
2	Field Blank	PS	2/1/2023 06:00	20268754004	Water		1									X
3																
4																
5																
Transfers		Released By	Date/Time	Received By		Date/Time		Comments								
1				Z. [Signature]		1044 2-9-23										
2																
3																
Cooler Temperature on Receipt		°C	Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y or N									

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

Thermometer Serial Number
 ✓ 181390287
 181460057
 Temp 2.3 °C
 FedEx



Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

TEST
②

March 16, 2023

Michael McCary
Clearwater Solutions
3308 Afton Circle
Hoover, AL 35242

RE: Project: Inverness WWTP Permit Renewal
Pace Project No.: 20270299

Dear Michael McCary:

Enclosed are the analytical results for sample(s) received by the laboratory on February 20, 2023. This report is a summary of the results based upon our understanding of your data quality objectives. Please contact us if itemized quality control results are needed. These results relate only to the samples included in this report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - New Orleans
- Pace Analytical Services - Allen

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Simpson

Cindy Simpson
cindy.simpson@pacelabs.com
(205)614-6630
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

CERTIFICATIONS

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20270299

Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC):
E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Texas Commission on Env. Quality (NELAC):
T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Pace Analytical Services Dallas

400 West Bethany Dr Suite 190, Allen, TX 75013
Texas Certification T104704232-20-32
Florida Certification #: E871118
EPA# TX00074
Kansas Certification #: E-10388

Arkansas Certification #: 88-0647
Oklahoma Certification #: 8727
Louisiana Certification #: 30686
Iowa Certification #: 408

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1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

SAMPLE ANALYTE COUNT

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20270299

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20270299001	Effluent composite 24	EPA 200.7	MHB1	13	PASI-N
		EPA 625.1	XLY	72	PASL-AT
20270299002	Effluent Grab	EPA 624.1	SLK	34	PASI-N
		EPA 420.1	ABW	1	PASI-N
		SM 4500-CN-E	GAG	1	PASI-N
20270299003	Trip Blank	EPA 624.1	SLK	34	PASI-N

PASI-N = Pace Analytical Services - New Orleans
PASL-AT = Pace Analytical Services - Allen

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20270299

Sample: Effluent composite 24 Lab ID: 20270299001 Collected: 02/20/23 06:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
Antimony	ND	ug/L	60.0	1	
Arsenic	ND	ug/L	10.0	1	
Beryllium	ND	ug/L	5.0	1	
Cadmium	ND	ug/L	5.0	1	
Chromium	ND	ug/L	10.0	1	
Copper	ND	ug/L	10.0	1	
Lead	ND	ug/L	5.0	1	
Nickel	ND	ug/L	40.0	1	
Selenium	ND	ug/L	20.0	1	
Silver	ND	ug/L	10.0	1	
Thallium	ND	ug/L	10.0	1	
Total Hardness	141000	ug/L	2000	1	
Zinc	21.8	ug/L	20.0	1	
1,2,4,5-Tetrachlorobenzene	ND	mg/L	0.00250	1	M1
1,2,4-Trichlorobenzene	ND	mg/L	0.00250	1	M1
1,2-Dichlorobenzene	ND	mg/L	0.00250	1	M1
1,3-Dichlorobenzene	ND	mg/L	0.00250	1	M1
1,4-Dichlorobenzene	ND	mg/L	0.00250	1	M1
2,2'-Oxybis(1-chloropropane)	ND	mg/L	0.00250	1	M1
2,4,5-Trichlorophenol	ND	mg/L	0.00250	1	M1
2,4,6-Trichlorophenol	ND	mg/L	0.00250	1	M1
2,4-Dichlorophenol	ND	mg/L	0.00250	1	M1
2,4-Dimethylphenol	ND	mg/L	0.00500	1	M1
2,4-Dinitrophenol	ND	mg/L	0.00500	1	M1
2,4-Dinitrotoluene	ND	mg/L	0.00500	1	M1
2,6-Dinitrotoluene	ND	mg/L	0.00500	1	M1
2-Chloronaphthalene	ND	mg/L	0.00250	1	M1
2-Chlorophenol	ND	mg/L	0.00250	1	M1
2-Methylphenol(o-Cresol)	ND	mg/L	0.00500	1	M1
2-Nitrophenol	ND	mg/L	0.00250	1	M1
3&4-Methylphenol(m&p Cresol)	ND	mg/L	0.00250	1	M1
3,3'-Dichlorobenzidine	ND	mg/L	0.00500	1	M1
4,6-Dinitro-2-methylphenol	ND	mg/L	0.00500	1	M1
4-Bromophenylphenyl ether	ND	mg/L	0.00250	1	M1
4-Chloro-3-methylphenol	ND	mg/L	0.00250	1	M1
4-Chlorophenylphenyl ether	ND	mg/L	0.00250	1	M1
4-Nitrophenol	ND	mg/L	0.00500	1	M1
Acenaphthene	ND	mg/L	0.00250	1	M1
Acenaphthylene	ND	mg/L	0.00250	1	M1
Anthracene	ND	mg/L	0.00250	1	M1
Benzidine	ND	mg/L	0.0100	1	M1
Benzo(a)anthracene	ND	mg/L	0.00250	1	M1
Benzo(a)pyrene	ND	mg/L	0.00250	1	M1
Benzo(b)fluoranthene	ND	mg/L	0.00250	1	M1
Benzo(g,h,i)perylene	ND	mg/L	0.00250	1	M1
Benzo(k)fluoranthene	ND	mg/L	0.00250	1	M1
Butylbenzylphthalate	ND	mg/L	0.00250	1	M1
bis(2-Chloroethoxy)methane	ND	mg/L	0.00250	1	M1
bis(2-Chloroethyl) ether	ND	mg/L	0.00250	1	M1

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20270299

Sample: Effluent composite 24 Lab ID: 20270299001 Collected: 02/20/23 06:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
bis(2-Ethylhexyl)phthalate	0.00684	mg/L	0.00500	1	M1
Chrysene	ND	mg/L	0.00250	1	M1
Di-n-butylphthalate	ND	mg/L	0.00250	1	M1
Di-n-octylphthalate	ND	mg/L	0.00250	1	M1
Dibenz(a,h)anthracene	ND	mg/L	0.00250	1	M1
Diethylphthalate	ND	mg/L	0.00250	1	M1
Dimethylphthalate	ND	mg/L	0.00250	1	M1
Fluoranthene	ND	mg/L	0.00250	1	M1
Fluorene	ND	mg/L	0.00250	1	M1
Hexachloro-1,3-butadiene	ND	mg/L	0.00250	1	M1
Hexachlorobenzene	ND	mg/L	0.00250	1	M1
Hexachlorocyclopentadiene	ND	mg/L	0.0100	1	M1
Hexachloroethane	ND	mg/L	0.00250	1	M1
1,2-Diphenylhydrazine	ND	mg/L	0.00250	1	N2
Indeno(1,2,3-cd)pyrene	ND	mg/L	0.00250	1	M1
Isophorone	ND	mg/L	0.00250	1	M1
N-Nitroso-di-n-butylamine	ND	mg/L	0.00250	1	M1
N-Nitroso-di-n-propylamine	ND	mg/L	0.00250	1	M1
N-Nitrosodiethylamine	ND	mg/L	0.00250	1	M1
N-Nitrosodimethylamine	ND	mg/L	0.00250	1	M1
N-Nitrosodiphenylamine	ND	mg/L	0.00250	1	M1
Naphthalene	ND	mg/L	0.00250	1	M1
Nitrobenzene	ND	mg/L	0.00250	1	M1
Pentachlorobenzene	ND	mg/L	0.00250	1	M1
Pentachlorophenol	ND	mg/L	0.00500	1	M1
Phenanthrene	ND	mg/L	0.00250	1	M1
Phenol	ND	mg/L	0.00250	1	M1
Pyrene	ND	mg/L	0.00250	1	M1
Pyridine	ND	mg/L	0.00250	1	M1
Cresols (Total)	ND	mg/L	0.00750	1	
2,4,6-Tribromophenol (S)	60.1	%	29-132	1	
2-Fluorobiphenyl (S)	52.5	%	26-102	1	
2-Fluorophenol (S)	26.7	%	10-86	1	
Nitrobenzene-d5 (S)	48.1	%	15-106	1	
Terphenyl-d14 (S)	58.7	%	10-120	1	
Phenol-d6 (S)	20.4	%	10-54	1	

Sample: Effluent Grab Lab ID: 20270299002 Collected: 02/19/23 13:45

Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	M1

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20270299

Sample: Effluent Grab **Lab ID: 20270299002** **Collected: 02/19/23 13:45**

Parameters	Results	Units	Report Limit	DF	Qualifiers
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	
1,2-Dichloroethane	ND	ug/L	5.0	1	
1,1-Dichloroethene	ND	ug/L	5.0	1	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	98	%	82-118	1	
Toluene-d8 (S)	104	%	81-120	1	
Dibromofluoromethane (S)	95	%	77-123	1	
Phenolics, Total Recoverable	0.046	mg/L	0.020	1	B
Cyanide	ND	mg/L	0.020	1	

Sample: Trip Blank **Lab ID: 20270299003** **Collected: 02/20/23 06:00**

Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	c3
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	
1,2-Dichloroethane	ND	ug/L	5.0	1	

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20270299

Parameters	Results	Units	Report Limit	DF	Qualifiers
1,1-Dichloroethene	ND	ug/L	5.0	1	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	95	%.	82-118	1	
Toluene-d8 (S)	105	%.	81-120	1	
Dibromofluoromethane (S)	95	%.	77-123	1	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20270299

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.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
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.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M1 No extra volume received to perform Matrix Spike samples.
N2 Analyte reported using a calibration and validation based on Azobenzene (CAS 103-33-3). 1,2-Diphenylhydrazine decomposes into Azobenzene during the analysis.
c3 Analysis of 2-chloroethyl vinyl ether was performed from a sample that was field preserved to pH < 2 with HCl. Acid preservation is not allowed for this parameter by the test method or for NPDES compliance per 40CFR Part 136.

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical

WO#: 20270299

The Chain-of-Custody is a LEGAL DOCUMENT. All re...

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found a...

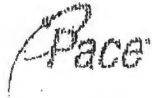
Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Clearwater Solutions -WW		Report To: A Jason Welch		Attention:	
Address: 100 Municipal Ln		Copy To:		Company Name:	
Birmingham, AL 35216		Purchase Order #:		Address:	
Email: jason.weich@hccveraibama.gov		Project Name: Inverness WWTP Permit Renewal		Pace Quote:	
Phone: NONE Fax:		Order #: 1053556		Pace Project Manager: cindy.simpson@pacelabs.com,	
Requested Due Date:				Pace Profile #: 18014	
				State/Location: AL	



ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -,) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	COLLECTED	PRESERVATIVES	ANALYSES TEST	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)						
						DATE		TIME		START		END		DATE		TIME			625	200.7 - Sae/llet	Total Cyanide	Phenol Total	Volatile Organics 624	LL Hg
						DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME									
1	Effluent Composite	WT C24	2-19-23 0600	2-20-23 0600		X	X																	
2	Effluent Grab	WT G	2/19 1:45					X	X	X														
3	Trip Blank	WT								X														
4	Effluent (Spike, Spike/Duplicate)	WT G									X													
5	Field Blank	WT										X												
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Mark Lee CWS	2-20-23	1:56	Jeff Hove / Pace	2/20	1:56	
	Jeff Hove Pace	2/20	1615	Mark Lee	2/20	1615	3-2 Y N Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Mark Lee					
SIGNATURE of SAMPLER:	Mark Lee	DATE Signed:	2-20-23			



1000 Riverbend Blvd., Suite F
 St. Rose, LA 70087

Project #

WO# : 20270299

PM: CRS Due Date: 03/07/23
 CLIENT: TU-CLWtrSol

Courier: Pace Courier Hired Courier Fed X UPS DHL USPS Customer Other

Custody Seal on Cooler/Box Present: YES NO Custody Seals Intact: YES NO

Samples on Ice: YES NO

Type of Ice: Wet Blue None

Date and Initials of person examining contents: SM 2/21/23

Temp should be 5°C *Temp must be measured from Temperature blank when present

Cooler #1 Thermometer Used: TUM13 Cooler Temp °C: (Observed) 3.2 (CF) 0 (Actual) 3.2
 Cooler #2 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____
 Cooler #3 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____
 Cooler #4 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____

Tracking #: _____

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Not Inquired:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot #: _____ HNO3 _____ H2SO4 _____ Date: _____ Time: _____
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA Vials (>8mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____



Pace Analytical Services, LLC
P.O. Box 907
Madisonville, KY 42431
270.821.7375
www.pacelabs.com

Certificate of Analysis 3024657

Cindy Simpson
Pace Analytical Services LLC Tuscaloosa
3516 Greensboro Ave
Tuscaloosa, AL 35401

Customer ID: 44-102111
Report Printed: 03/08/2023 15:32

Project Name: Cindy Simpson PM

Workorder: 3024657

Dear Cindy Simpson

Enclosed are the analytical results for samples received by the laboratory 02/23/2023 10:20.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Melissia Brown, Project Coordinator



Pace Analytical Services, LLC
 P.O. Box 907
 Madisonville, KY 42431
 270.821.7375
 www.pacelabs.com

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
3024657-01	Low Level Mercury/EFFLUENT GRAB	Wastewater	02/19/2023 13:45	02/23/2023 10:20	Client
3024657-02	Low Level Mercury Field Blank/20270299004 FIELD BLANK	Wastewater	02/20/2023 06:00	02/23/2023 10:20	Client

ANALYTICAL RESULTS

Lab Sample ID: **3024657-01**
 Description: **Low Level Mercury EFFLUENT GRAB**

Sample Collection Date Time: 02/19/2023 13:45
 Sample Received Date Time: 02/23/2023 10:20

Metals Analysis Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	0.5		ng/L	0.5	0.4	EPA 1631E 2002	03/02/2023 12:54	03/07/2023 13:56	MLG

ANALYTICAL RESULTS

Lab Sample ID: **3024657-02**
 Description: **Low Level Mercury Field Blank 20270299004 FIELD BLANK**

Sample Collection Date Time: 02/20/2023 06:00
 Sample Received Date Time: 02/23/2023 10:20

Metals Analysis Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	ND	u	ng/L	0.5	0.2	EPA 1631E 2002	03/02/2023 12:54	03/07/2023 15:05	MLG



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Notes for work order 3024657

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra.
Concentrations reported are estimated values.

Qualifiers

- D Results reported from dilution.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
- MRL Minimum Reporting Limit
- ND Not Detected
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- % Rec Percent Recovery
- RPD Relative Percent Difference
- > Greater than
- < Less than



Metals Analysis Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BCC0186 - Default Prep Metals										
Blank (BCC0186-BLK1)										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 13:10										
Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U
Blank (BCC0186-BLK2)										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 13:18										
Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U
Blank (BCC0186-BLK3)										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 13:26										
Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U
LCS (BCC0186-BS1)										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 14:34										
Mercury	5.2	0.5	ng/L	5.00		104	77-123			
Mercury	5.2	0.5	ng/L	5.00		104	77-123			
Matrix Spike (BCC0186-MS1) Source: 3024441-01										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 15:28										
Mercury	235	25.0	ng/L	250	ND	94.0	71-125			D
Mercury	235	25.0	ng/L	250	ND	94.0	71-125			D
Matrix Spike (BCC0186-MS2) Source: 3031750-01										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 15:43										
Mercury	6.1	0.5	ng/L	5.00	1.0	103	71-125			
Mercury	6.1	0.5	ng/L	5.00	1.0	103	71-125			
Matrix Spike Dup (BCC0186-MSD1) Source: 3024441-01										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 15:36										
Mercury	238	25.0	ng/L	250	ND	95.1	71-125	1.21	24	D
Mercury	238	25.0	ng/L	250	ND	95.1	71-125	1.21	24	D
Matrix Spike Dup (BCC0186-MSD2) Source: 3031750-01										
Prepared: 3/2/2023 12:54, Analyzed: 3/7/2023 15:51										
Mercury	6.1	0.5	ng/L	5.00	1.0	103	71-125	0.343	24	
Mercury	6.1	0.5	ng/L	5.00	1.0	103	71-125	0.343	24	

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E 2002 in Water	
Mercury	VA NELAC MDV (460210) KY Wastewater Mdv (00030)
Mercury	VA NELAC MDV (460210) KY Wastewater Mdv (00030) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431



Pace Analytical Services, LLC
P.O. Box 907
Madisonville, KY 42431
270.821.7375
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Sample Acceptance Checklist for Work Order 3024657	
Shipped By: Fed Ex	Temperature: 2.10° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input type="checkbox"/>
Check if Collector Signature Present	<input type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

3024657

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: AL

Cert. Needed: Yes No

Owner Received Date: 2/20/2023 Results Requested By: 3/7/2023

Workorder: 20270299 Workorder Name: Inverness WWTP Permit Renewal

Report To		Subcontract To					Requested Analysis											
Cindy Simpson Pace Analytical Tuscaloosa 1168 Whigham Place Tuscaloosa, AL 35405 Phone (205)614-6630		Pace Analytical Madisonville 825 Industrial Rd Madisonville, KY 42431 Phone 270-824-2211																
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers								Low Level Mercury	LAB USE ONLY			
						HCL	Unpreserved											
1	Effluent Grab	PS	2/19/2023 13:45	20270299002	Water	1									X			
2	Field Blank	PS	2/20/2023 06:00	20270299004	Water		1								X			
3																		
4																		
5																		

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			<i>[Signature]</i>	2-23-23	1020
2					
3					

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N
-------------------------------	----	---------------------	------------------------	-----------------------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Thermometer Serial Number
✓ 181390287
181460057
Temp 22.6°C
Fed Ex



Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

Test
③

April 20, 2023

Michael McCary
Clearwater Solutions
3308 Afton Circle
Hoover, AL 35242

RE: Project: Inverness WWTP Permit Renewal
Pace Project No.: 20272521

Dear Michael McCary:

Enclosed are the analytical results for sample(s) received by the laboratory on March 20, 2023. This report is a summary of the results based upon our understanding of your data quality objectives. Please contact us if itemized quality control results are needed. These results relate only to the samples included in this report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Gulf Coast
- Pace Analytical Services - New Orleans

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Simpson

Cindy Simpson
cindy.simpson@pacelabs.com
(205)614-6630
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

CERTIFICATIONS

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20272521

Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC):
E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Texas Commission on Env. Quality (NELAC):
T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Pace Analytical Gulf Coast

7979 Innovation Park Drive, Baton Rouge, LA 70820
Arkansas Certification #: 88-0655
DoD ELAP Certification #: 6429-01
Florida Certification #: E87854
Illinois Certification #: 004585
Kansas Certification #: E-10354
Louisiana/LELAP Certification #: 01955
North Carolina Certification #: 618

North Dakota Certification #: R-195
Oklahoma Certification #: 2019-101
South Carolina Certification #: 73006001
Texas Certification #: T104704178-19-11
USDA Soil Permit # P330-19-00209
Virginia Certification #: 460215
Washington Certification #: C929

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20272521

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20272521001	Effluent composite 24	EPA 200.7	AJS	13	PASI-N
		EPA 245.2	ARW	1	PASI-N
		EPA 625.1	CWB	62	PASI-GCLA
20272521002	Effluent Grab	EPA 624.1	SLK	34	PASI-N
		EPA 420.1	GAG	1	PASI-N
		SM 4500-CN-E	GAG	1	PASI-N
20272521003	Trip Blank	EPA 624.1	SLK	34	PASI-N

PASI-GCLA = Pace Analytical Gulf Coast
 PASI-N = Pace Analytical Services - New Orleans

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20272521

Sample: Effluent composite 24 Lab ID: 20272521001 Collected: 03/20/23 07:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
Antimony	ND	ug/L	60.0	1	
Arsenic	ND	ug/L	10.0	1	
Beryllium	ND	ug/L	5.0	1	
Cadmium	ND	ug/L	5.0	1	
Chromium	ND	ug/L	10.0	1	
Copper	ND	ug/L	10.0	1	P8
Lead	ND	ug/L	5.0	1	
Nickel	ND	ug/L	40.0	1	
Selenium	ND	ug/L	20.0	1	
Silver	ND	ug/L	10.0	1	
Thallium	ND	ug/L	10.0	1	
Total Hardness	140000	ug/L	2000	1	
Zinc	ND	ug/L	20.0	1	
Mercury	ND	ug/L	0.20	1	
1,2,4-Trichlorobenzene	ND	ug/L	10	1	
1,2-Dichlorobenzene	ND	ug/L	10	1	
1,2-Diphenylhydrazine	ND	ug/L	10	1	
1,3-Dichlorobenzene	ND	ug/L	10	1	
1,4-Dichlorobenzene	ND	ug/L	10	1	
2,4,6-Trichlorophenol	ND	ug/L	10	1	
2,4-Dichlorophenol	ND	ug/L	10	1	
2,4-Dimethylphenol	ND	ug/L	10	1	
2,4-Dinitrophenol	ND	ug/L	10	1	
2,4-Dinitrotoluene	ND	ug/L	10	1	
2,6-Dinitrotoluene	ND	ug/L	10	1	
2-Chloronaphthalene	ND	ug/L	10	1	
2-Chlorophenol	ND	ug/L	10	1	
2-Nitrophenol	ND	ug/L	10	1	
3,3'-Dichlorobenzidine	ND	ug/L	5	1	
4,6-Dinitro-2-methylphenol	ND	ug/L	10	1	
4-Bromophenylphenyl ether	ND	ug/L	10	1	
4-Chloro-3-methylphenol	ND	ug/L	10	1	
4-Chlorophenylphenyl ether	ND	ug/L	10	1	
4-Nitrophenol	ND	ug/L	10	1	
Acenaphthene	ND	ug/L	10	1	
Acenaphthylene	ND	ug/L	10	1	
Anthracene	ND	ug/L	10	1	
Benidine	ND	ug/L	20	1	
Benzo(a)anthracene	ND	ug/L	5	1	
Benzo(a)pyrene	ND	ug/L	5	1	
Benzo(b)fluoranthene	ND	ug/L	10	1	
Benzo(g,h,i)perylene	ND	ug/L	10	1	
Benzo(k)fluoranthene	ND	ug/L	5	1	
bis(2-Chloroethoxy)methane	ND	ug/L	10	1	
bis(2-Chloroethyl) ether	ND	ug/L	10	1	
bis(2-Ethylhexyl)phthalate	ND	ug/L	10	1	
Butylbenzylphthalate	ND	ug/L	10	1	
Chrysene	ND	ug/L	5	1	
Di-n-butylphthalate	ND	ug/L	10	1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20272521

Sample: Effluent composite 24 **Lab ID: 20272521001** **Collected: 03/20/23 07:00**

Parameters	Results	Units	Report Limit	DF	Qualifiers
Di-n-octylphthalate	ND	ug/L	10	1	
Dibenz(a,h)anthracene	ND	ug/L	5	1	
Diethylphthalate	ND	ug/L	10	1	
Dimethylphthalate	ND	ug/L	10	1	
Fluoranthene	ND	ug/L	10	1	
Fluorene	ND	ug/L	10	1	
Hexachlorobenzene	ND	ug/L	5	1	
Hexachloro-1,3-butadiene	ND	ug/L	10	1	
Hexachlorocyclopentadiene	ND	ug/L	10	1	
Hexachloroethane	ND	ug/L	10	1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	5	1	
Isophorone	ND	ug/L	10	1	
Naphthalene	ND	ug/L	10	1	
Nitrobenzene	ND	ug/L	10	1	
Pentachlorophenol	ND	ug/L	5	1	
Phenanthrene	ND	ug/L	10	1	
Phenol	ND	ug/L	10	1	
Pyrene	ND	ug/L	10	1	
N-Nitroso-di-n-propylamine	ND	ug/L	10	1	
N-Nitrosodimethylamine	ND	ug/L	10	1	
N-Nitrosodiphenylamine	ND	ug/L	10	1	
Nitrobenzene-d5 (S)	48	%	43-120	1	
2-Fluorobiphenyl (S)	51	%	16-128	1	
Terphenyl-d14 (S)	58	%	43-138	1	
Phenol-d5 (S)	26	%	10-120	1	
2-Fluorophenol (S)	35	%	10-120	1	
2,4,6-Tribromophenol (S)	63	%	19-133	1	

Sample: Effluent Grab **Lab ID: 20272521002** **Collected: 03/20/23 13:00**

Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	
1,2-Dichloroethane	ND	ug/L	5.0	1	
1,1-Dichloroethene	ND	ug/L	5.0	1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
 Pace Project No.: 20272521

Sample: Effluent Grab		Lab ID: 20272521002	Collected: 03/20/23 13:00		
Parameters	Results	Units	Report Limit	DF	Qualifiers
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	101	%	82-118	1	
Toluene-d8 (S)	100	%	81-120	1	
Dibromofluoromethane (S)	93	%	77-123	1	
Phenolics, Total Recoverable	ND	mg/L	0.020	1	
Cyanide	ND	mg/L	0.020	1	

Sample: Trip Blank		Lab ID: 20272521003	Collected: 03/20/23 13:00		
Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	c3
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	
1,2-Dichloroethane	ND	ug/L	5.0	1	
1,1-Dichloroethene	ND	ug/L	5.0	1	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Inverness WWTP Permit Renewal
Pace Project No.: 20272521

Sample: Trip Blank Lab ID: 20272521003 Collected: 03/20/23 13:00

Parameters	Results	Units	Report Limit	DF	Qualifiers
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	99	%	82-118	1	
Toluene-d8 (S)	97	%	81-120	1	
Dibromofluoromethane (S)	94	%	77-123	1	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Inverness WWTP Permit Renewal

Pace Project No.: 20272521

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.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

ANALYTE QUALIFIERS

p8 Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

c3 Analysis of 2-chloroethyl vinyl ether was performed from a sample that was field preserved to pH < 2 with HCl. Acid preservation is not allowed for this parameter by the test method or for NPDES compliance per 40CFR Part 136.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.




CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pace>

WO#: 20272521



20272521

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Clearwater Solutions -WW	Report To: A Jason Welch	Attention:		Company Name:	
Address: 100 Municipal Ln	Copy To:	Address:		Purchase Order #:	
Birmingham, AL 35216		Phone: NONE Fax:		Pace Project Manager: cindy.simpson@pacelabs.com	
Email: jason.welch@hooveralabama.gov	Project Name: Inveness WWTP Permit Renewal	Requested Due Date:		Pace Profile #: 18014	
Order #: 1053556		AL			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -) Sample IDs must be unique	MATRIX		COLLECTED		PRESERVATIVES		Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)		
		DRINKING WATER	WASTE WATER	DATE	TIME	HCl	NaOH	Mercuric Iodide	Other	856	200.7	Total Cyanide	Phenol Total	Volatile Organics 624	LL Hg							
1	Effluent Composite	WT	C24	3-19	7:00	3-20	7:00															
2	Effluent Grab	WT	G	3-20	1:00											X	X	X				
3	Trip Blank	WT		3-20	1:00										X							
4	Effluent (Spike, Spike/Duplicate)	WT	G	3-20	1:00										X							
5	Field Blank	WT		3-20	1:00										X							
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Mike McCarry / CWS	3-20-23	1:07	Jason Welch / Pace	3/20	1907				
	Colin McCarry / Pace	3/20	1630	Jason Welch / Pace	3-20	1630	2.4	Y	2	Y

SAMPLER NAME AND SIGNATURE		TEMP In C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Mike McCarry					
SIGNATURE of SAMPLER: <i>Mike McCarry</i>	DATE Signed: 3-20-23				

WO#: 20272521

PH: CRS Due Date: 04/04/23
 CLIENT: TU-CirWtr-Sol



1000 Riverbend Blvd., Suite F
 St. Rose, LA 70087

Project

Courier: Pace Courier Hired Courier Fed X UPS DHL USPS Customer Other

Custody Seal on Cooler/Box Present: YES NO Custody Seals Intact: YES NO

Samples on Ice: YES NO

Type of Ice: Wet Blue None

Date and Initials of person examining contents: AS 3/20

Temp should be ≤6°C *Temp must be measured from Temperature blank when present

Cooler #1 Thermometer Used: TUTM13 Cooler Temp °C: (Observed) 2.4 (CF) 0 (Actual) 2.4
 Cooler #2 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____
 Cooler #3 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____
 Cooler #4 Thermometer Used: _____ Cooler Temp °C: (Observed) _____ (CF) _____ (Actual) _____

Tracking #: _____

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers received within manufacturer's precautionary and/or expiration dates.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	If added record lot #.: HNO3 _____ H2SO4 _____ Date: _____ Time: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____



Pace Analytical Services, LLC
P.O. Box 907
Madisonville, KY 42431
270.821.7375
www.pacelabs.com

Certificate of Analysis 3034095

Cindy Simpson
Pace Analytical Services LLC Tuscaloosa
3516 Greensboro Ave
Tuscaloosa, AL 35401

Customer ID: 44-102111
Report Printed: 03/28/2023 14:13

Project Name: Cindy Simpson PM

Workorder: 3034095

Dear Cindy Simpson

Enclosed are the analytical results for samples received by the laboratory 03/22/2023 10:30.

The results relate to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services LLC Kentucky - Madisonville

If you have any questions concerning this report, please feel free to contact me.



#460210 Madisonville, KY
#460291 Pikeville, KY

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Melissia Brown, Project Coordinator



Pace Analytical Services, LLC
 P.O. Box 907
 Madisonville, KY 42431
 270.821.7375
 www.pacelabs.com

SAMPLE SUMMARY

Lab ID	Client Sample ID/Alias	Matrix	Date Collected	Date Received	Sampled By
3034095-01	Low Level Mercury/20272521002 Effluent Grab	Wastewater	03/20/2023 13:00	03/22/2023 10:30	Client
3034095-02	Low Level Mercury Field Blank/20272521004 Field Blank	Wastewater	03/20/2023 13:00	03/22/2023 10:30	Client

ANALYTICAL RESULTS

Lab Sample ID: **3034095-01**
 Description: **Low Level Mercury 20272521002 Effluent Grab**

Sample Collection Date Time: 03/20/2023 13:00
 Sample Received Date Time: 03/22/2023 10:30

Metals Analysis Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	0.5		ng/L	0.5	0.4	EPA 1631E 2002	03/27/2023 11:36	03/28/2023 10:22	MLG

ANALYTICAL RESULTS

Lab Sample ID: **3034095-02**
 Description: **Low Level Mercury Field Blank 20272521004 Field Blank**

Sample Collection Date Time: 03/20/2023 13:00
 Sample Received Date Time: 03/22/2023 10:30

Metals Analysis Madisonville

Analyte	Result	Flag	Units	MRL	MDL	Method	Prepared	Analyzed	Analyst
Mercury	ND	u	ng/L	0.5	0.2	EPA 1631E 2002	03/27/2023 11:36	03/28/2023 11:08	MLG



Notes for work order 3034095

- Samples collected by PACE personnel are done so in accordance with procedures set forth in PACE field services SOPs .
- Results contained in this report are only representative of the samples received.
- PACE does not provide interpretation of these results unless otherwise stated .
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identification based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.

Qualifiers

- M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
- U Target analyte was analyzed for, but was below detection limit (the value associated with the qualifier is the laboratory method detection limit in our LIMS system).

Standard Qualifiers/Acronyms

- MDL Method Detection Limit
MRL Minimum Reporting Limit
ND Not Detected
LCS Laboratory Control Sample
MS Matrix Spike
MSD Matrix Spike Duplicate
DUP Sample Duplicate
% Rec Percent Recovery
RPD Relative Percent Difference
> Greater than
< Less than



Metals Analysis Madisonville - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BCC2680 - Default Prep Metals										
Blank (BCC2680-BLK1)										
Prepared: 3/27/2023 11:36, Analyzed: 3/28/2023 9:51										
Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U
Blank (BCC2680-BLK2)										
Prepared: 3/27/2023 11:36, Analyzed: 3/28/2023 9:59										
Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U
Blank (BCC2680-BLK3)										
Prepared: 3/27/2023 11:36, Analyzed: 3/28/2023 10:07										
Mercury	ND	0.5	ng/L							U
Mercury	ND	0.5	ng/L							U
LCS (BCC2680-BS1)										
Prepared: 3/27/2023 11:36, Analyzed: 3/28/2023 10:45										
Mercury	4.9	0.5	ng/L	5.00		98.9	77-123			
Mercury	4.9	0.5	ng/L	5.00		98.9	77-123			
Matrix Spike (BCC2680-MS1) Source: 3031703-01										
Prepared: 3/27/2023 11:36, Analyzed: 3/28/2023 11:23										
Mercury	43.4	0.5	ng/L	5.00	39.9	69.0	71-125			M2
Mercury	43.4	0.5	ng/L	5.00	39.9	69.0	71-125			M2
Matrix Spike Dup (BCC2680-MSD1) Source: 3031703-01										
Prepared: 3/27/2023 11:36, Analyzed: 3/28/2023 11:31										
Mercury	44.6	0.5	ng/L	5.00	39.9	93.1	71-125	2.74	24	
Mercury	44.6	0.5	ng/L	5.00	39.9	93.1	71-125	2.74	24	

Certified Analyses included in this Report

Analyte	Certifications
EPA 1631E 2002 in Water	
Mercury	VA NELAC MDV (460210) KY Wastewater Mdv (00030)
Mercury	VA NELAC MDV (460210) KY Wastewater Mdv (00030) WV Wastewater Madisonville (241), 825 Industrial Rd Madisonville, KY 42431



Pace Analytical Services, LLC
P.O. Box 907
Madisonville, KY 42431
270.821.7375
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Sample Acceptance Checklist for Work Order 3034095	
Shipped By: Fed Ex	Temperature: 4.40° Celcius
Condition	
Check if Custody Seals are Present/Intact	<input type="checkbox"/>
Check if Custody Signatures are Present	<input checked="" type="checkbox"/>
Check if Collector Signature Present	<input type="checkbox"/>
Check if bottles are intact	<input checked="" type="checkbox"/>
Check if bottles are correct	<input checked="" type="checkbox"/>
Check if bottles have sufficient volume	<input checked="" type="checkbox"/>
Check if samples received on ice	<input checked="" type="checkbox"/>
Check if VOA headspace is acceptable	<input type="checkbox"/>
Check if samples received in holding time.	<input checked="" type="checkbox"/>
Check if samples are preserved properly	<input checked="" type="checkbox"/>

Internal Transfer Chain of Custody

3034095



Samples Pre-Logged into eCOC.

State Of Origin: AL
 Cert. Needed: Yes No

Workorder: 20272521 Workorder Name: Inverness WWTP Permit Renewal

Owner Received Date: 3/20/2023 Results Requested By: 4/4/2023

Report To		Subcontract To				Requested Analysis															
Cindy Simpson Pace Analytical Tuscaloosa 1168 Whigham Place Tuscaloosa, AL 35405 Phone (205)614-6630		Pace Analytical Madisonville 825 Industrial Rd Madisonville, KY 42431 Phone 270-824-2211																			
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				Low Level Mercury	LAB USE ONLY										
						Unpreserved															
1	Effluent Grab	PS	3/20/2023 13:00	20272521002	Water	1					X										
2	Field Blank	PS	3/20/2023 13:00	20272521004	Water	1					X										
3																					
4																					
5																					
Transfers		Released By	Date/Time	Received By	Date/Time	Comments															
1		<i>[Signature]</i>	3/21/23 16:57	<i>[Signature]</i>	3/22/23 10:30																
2																					
3																					
Cooler Temperature on Receipt		°C	Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y or N														

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

Thermometer Serial Number
 ✓ 181390287
 181460057
 Temp 4.4°C

Page 6 of 6

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

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: City of Hoover (Inverness WWTP)

Facility County: St. Clair

RECEIVED

a. Operator Name: Clearwater Solutions, LLC

b. Is the operator identified in A.1.a, the owner of the facility? Yes No

MAR 02 2023

If No, provide the following information:

**IND/MUN BRANCH
WATER DIVISION**

Operator Name: Clearwater Solutions, LLC

Operator Address (Street or PO Box): 2178 Moore's Mill Road

City: Auburn

Alabama

Zip: 36830

Phone Number: 205-657-0325

Email Address: _____

Operator Status:

- Public-federal Public-state Public-other (please specify): _____
 Private Other (please specify): _____

Describe the operator's scope of responsibility for the facility:

Operation and Maintenance of WWTP

c. Name of Permittee* if different than Operator: City of Hoover

*Permittee will be responsible for compliance with the conditions of the permit

2. NPDES Permit Number: AL 0025852 (Not applicable if initial permit application)

3. Facility Location (Front Gate): Latitude: 33.40930 N Longitude: -86.72459 W

4. Responsible Official (as described on last page of this application):

Name and Title: Allan Rice, City Administrator

Address: 100 Municipal Lane

City: Hoover

State: Alabama

Zip: 35216

Phone Number: 205-444-7541

Email Address: arice@hooveralabama.gov

5. Designated Facility/DMR Contact:

Name: Michael McCary Title: Chief Operator
 Phone Number: 205-365-9813 Email Address: michael.mccary@clearwatersol.com

6. Designated Emergency Contact:

Name: Michael McCary Title: Chief Operator
 Phone Number: 205-365-9813 Email Address: michael.mccary@clearwatercol.com

7. 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.4.

Name: _____ Title: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone Number: _____ Email Address: _____

8. 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):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
N/A			

SECTION B – WASTEWATER DISCHARGE INFORMATION

- Attach a process flow schematic of the treatment process, including the size of each unit operation and sample collection locations.
- Do you share an outfall with another facility? Yes No (If no, continue to B.3)

For each shared outfall, provide the following:

<u>Applicant's Outfall No.</u>	<u>Name of Other Permittee/Facility</u>	<u>NPDES Permit No.</u>	<u>Where is sample collected by Applicant?</u>

3. 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:

This Plant has automatic flow metering and sampling equipment for the influent and outfall of the plant and at each of the three (3) outfalls.

4. 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

If Yes, 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
Dried Sludge	Covered storage bin adjacent to drying beds.

*Indicate any wastes disposed at an off-site treatment facility and any wastes that are disposed on-site

SECTION D – INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

1. 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?
N/A				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No

2. 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:

- | | <u>Yes</u> | <u>No</u> |
|---|--------------------------|--------------------------|
| 1. Does the project require new construction?..... | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will the project be a source of new air emissions? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Does the project involve dredging and/or filling of a wetland area or water way?..... | <input type="checkbox"/> | <input type="checkbox"/> |
| If Yes, has the Corps of Engineers (COE) permit been received? | <input type="checkbox"/> | <input type="checkbox"/> |
| COE Project No. _____ | | |
| 4. Does the project involve wetlands and/or submersed grassbeds? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Are oyster reefs located near the project site? | <input type="checkbox"/> | <input type="checkbox"/> |
| If Yes, include a map showing project and discharge location with respect to oyster reefs | | |
| 6. Does the project involve the site development, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Does the project involve mitigation of shoreline or coastal area erosion? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Does the project involve construction on beaches or dune areas?..... | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Will the project interfere with public access to coastal waters? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Does the project lie within the 100-year floodplain? | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Does the project involve the registration, sale, use, or application of pesticides? | <input type="checkbox"/> | <input type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> |
| If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained? | <input type="checkbox"/> | <input type="checkbox"/> |

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.

- 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.
- 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. 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. If the facility design capacity is equal to or greater than 1 MGD, Form 2F is also required.
2. Applicants for new or existing land application of sanitary wastewater must submit Form 2A and Form 2F.
3. Applicants for new and existing discharges of process wastewater from water treatment facilities (i.e. public water supply treatment plants) must submit Form 1 and Form 2C.
4. 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

See ADEM 335-6-6-.08(i) & (j).

SECTION I – RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?	Included in TMDL?*
003	Cahaba River	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> 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."

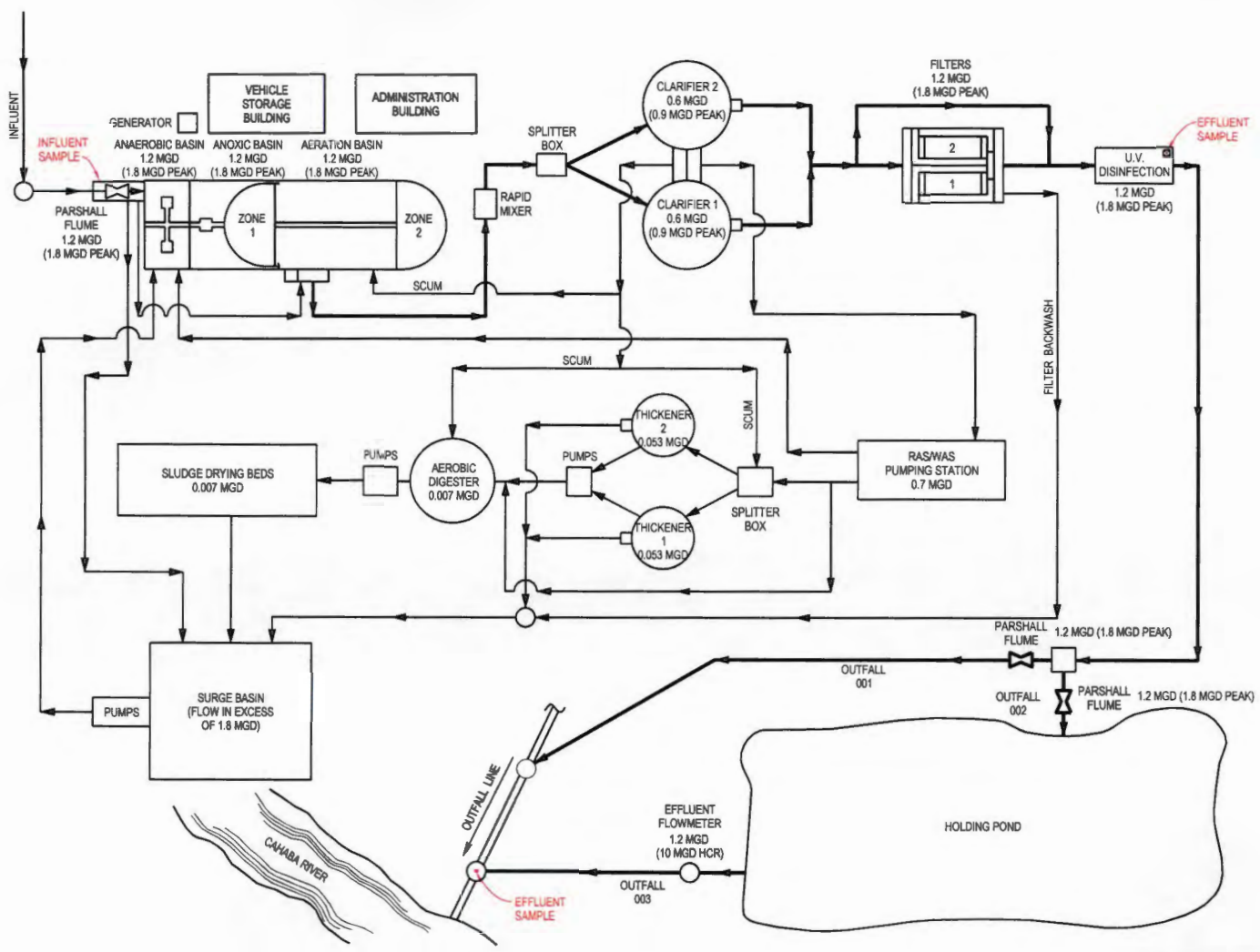
Signature of Responsible Official:  Date Signed: 2/27/23
 Name: Allan Rice Title: City Administrator

If the Responsible Official signing this application is not identified in Section A.4 or A.7, provide the following information:

Mailing Address: 100 Municipal Lane
 City: Hoover State: Alabama Zip: 35218
 Phone Number: 205-444-7541 Email Address: arice@hooveralabama.gov

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.



818 North State Street
 Suite 2000
 Birmingham, AL 35203
 Phone: 205.263.1234
 Fax: 205.263.1235
 Website: www.garyl-owen.com

GARY L. OWEN
 AND ASSOCIATES, INC.
 CONSULTING ENGINEERS



PROJECT FOR
 CITY OF HOOVER
 HOOVER, ALABAMA
 INVERNESS WASTEWATER
 TREATMENT PLANT
 PROCESS FLOW DIAGRAM

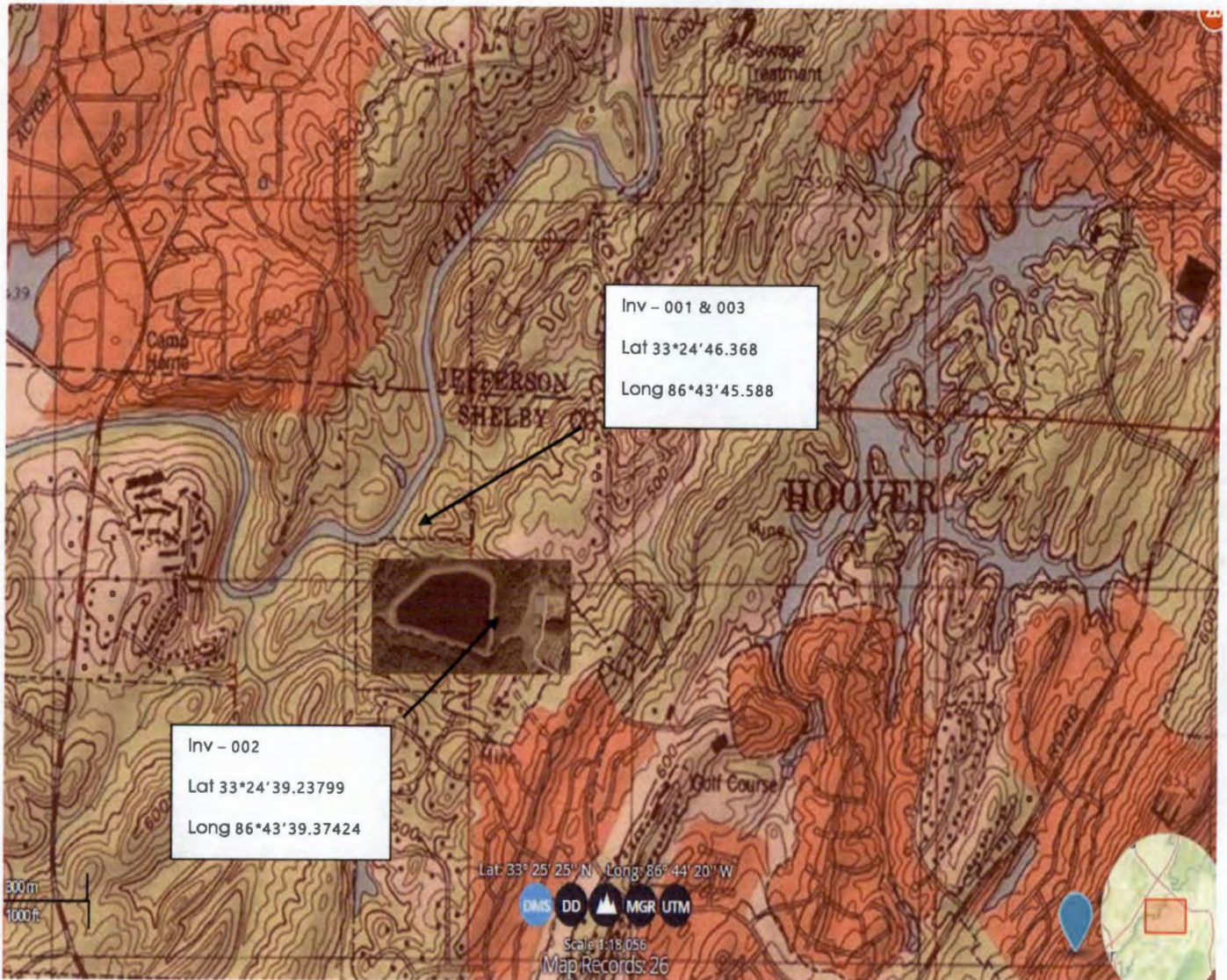
DATE	2023	COMPONENT	MDP PER AREA
BY	CLM	NO.	1
REV.	01	DATE	05/01/2023
CLM	NO SCALE	DATE	MAY 2004
PROJECT	IND/MUN BRANCH	DATE	MAY 2004

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**IND/MUN BRANCH
 WATER DIVISION**


City of Hoover
Inverness WWTP
NPDES Permit #AL0025852
Quad Map



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**IND/MUN BRANCH
WATER DIVISION**

Form 2F NPDES		U.S Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY
---------------------	---	---

SECTION 1.1. OUTFALL LOCATION (40 CFR 122.21(g)(1))

Outfall Location	1.1	Provide information on each of the facility's outfalls in the table below			
		Outfall Number	Receiving Water Name	Latitude	Longitude
		004S	Cahaba River	33° 24' 45" N <input type="checkbox"/>	86° 43' 40" W <input type="checkbox"/>
		005S	Cahaba River	33° 24' 35" N <input type="checkbox"/>	86° 44' 03" W <input type="checkbox"/>
				. ' "	. ' "
				. ' "	. ' "
				. ' "	. ' "
				. ' "	. ' "

SECTION 2. IMPROVEMENTS (40 CFR 122.21(g)(6))

Improvements	2.1	Are you presently required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 3.			
	2.2	Briefly identify each applicable project in the table below.			
		Brief Identification and Description of Project	Affected Outfalls (list outfall numbers)	Source(s) of Discharge	Final Compliance Dates
					Required Projected
				<div style="border: 1px solid black; padding: 10px; text-align: center;"> RECEIVED MAR 02 2023 IND/MUN BRANCH WATER DIVISION </div>	

	2.3	Have you attached sheets describing any additional water pollution control programs (or other environmental projects that may affect your discharges) that you now have underway or planned? (Optional Item) <input type="checkbox"/> Yes <input type="checkbox"/> No			
--	-----	--	--	--	--

SECTION 3. SITE DRAINAGE MAP (40 CFR 122.26(c)(1)(i)(A))

Site Drainage Map	3.1	Have you attached a site drainage map containing all required information to this application? (See instructions for specific guidance.)
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

SECTION 4. POLLUTANT SOURCES (40 CFR 122.26(c)(1)(i)(B))

Pollutant Sources	4.1	Provide information on the facility's pollutant sources in the table below.			
		Outfall Number	Impervious Surface Area (within a mile radius of the facility)		Total Surface Area Drained (within a mile radius of the facility)
		004S	0.556	<i>specify units</i> acres	21.27 <i>specify units</i> acres
		005S	1.614	<i>specify units</i> acres	36.50 <i>specify units</i> acres
				<i>specify units</i>	<i>specify units</i>
				<i>specify units</i>	<i>specify units</i>
				<i>specify units</i>	<i>specify units</i>
				<i>specify units</i>	<i>specify units</i>
				<i>specify units</i>	<i>specify units</i>
		4.2	Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)		
		N/A			
	4.3	Provide the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff. (See instructions for specific guidance.)			
		Stormwater Treatment			
		Outfall Number	Control Measures and Treatment		Codes from Exhibit 2F-1 (list)
			N/A		

SECTION 5.1 NON STORMWATER DISCHARGES (40 CFR 122.26(c)(1)(i)(C))

Non-Stormwater Discharges	5.1	<i>I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges. Moreover, I certify that the outfalls identified as having non-stormwater discharges are described in either an accompanying NPDES Form 2C, 2D, or 2E application.</i>		
	Name (print or type first and last name)		Official title	
	Signature		Date signed	
	5.2	Provide the testing information requested in the table below.		
	Outfall Number	Description of Testing Method Used	Date(s) of Testing	Onsite Drainage Points Directly Observed During Test
	004S	Grab Sample	12/20/2022	004S
	005S	Grab Sample	12/20/2022	005S

SECTION 6. SIGNIFICANT LEAKS OR SPILLS (40 CFR 122.26(c)(1)(i)(D))

Significant Leaks or Spills	6.1	Describe any significant leaks or spills of toxic or hazardous pollutants in the last three years. None
------------------------------------	-----	--

SECTION 7. DISCHARGE INFORMATION (40 CFR 122.26(c)(1)(i)(E))

Discharge Information	See the instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must complete. Not all applicants need to complete each table.		
	7.1	Is this a new source or new discharge? <input type="checkbox"/> Yes → See instructions regarding submission of <i>estimated</i> data. <input checked="" type="checkbox"/> No → See instructions regarding submission of <i>actual</i> data.	
	Tables A, B, C, and D		
7.2	Have you completed Table A for each outfall? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Discharge Information Continued

7.3	Is the facility subject to an effluent limitation guideline (ELG) or effluent limitations in an NPDES permit for its process wastewater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 7.5.
7.4	Have you completed Table B by providing quantitative data for those pollutants that are (1) limited either directly or indirectly in an ELG and/or (2) subject to effluent limitations in an NPDES permit for the facility's process wastewater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F-2 are present in the discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.7.
7.6	Have you listed all pollutants in Exhibit 2F-2 that you know or have reason to believe are present in the discharge and provided quantitative data or an explanation for those pollutants in Table C? <input type="checkbox"/> Yes <input type="checkbox"/> No
7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? <input type="checkbox"/> Yes → SKIP to Item 7.18. <input checked="" type="checkbox"/> No
7.8	Do you know or have reason to believe any pollutants in Exhibit 2F-3 are present in the discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.10.
7.9	Have you listed all pollutants in Exhibit 2F-3 that you know or have reason to believe are present in the discharge in Table C? <input type="checkbox"/> Yes <input type="checkbox"/> No
7.10	Do you expect any of the pollutants in Exhibit 2F-3 to be discharged in concentrations of 10 ppb or greater? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.12.
7.11	Have you provided quantitative data in Table C for those pollutants in Exhibit 2F-3 that you expect to be discharged in concentrations of 10 ppb or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
7.12	Do you expect acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol to be discharged in concentrations of 100 ppb or greater? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.14.
7.13	Have you provided quantitative data in Table C for the pollutants identified in Item 7.12 that you expect to be discharged in concentrations of 100 ppb or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
7.14	Have you provided quantitative data or an explanation in Table C for pollutants you expect to be present in the discharge at concentrations less than 10 ppb (or less than 100 ppb for the pollutants identified in Item 7.12)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.15	Do you know or have reason to believe any pollutants in Exhibit 2F-4 are present in the discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.17.
7.16	Have you listed pollutants in Exhibit 2F-4 that you know or believe to be present in the discharge and provided an explanation in Table C? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.17	Have you provided information for the storm event(s) sampled in Table D? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

EPA Identification Number
AL0025852

NPDES Permit Number
AL0025852

Facility Name
Inverness WWTP

Form Approved 03/05/19
OMB No. 2040-0004

Discharge Information Continued

Used or Manufactured Toxics

7.18 Is any pollutant listed on Exhibits 2F-2 through 2F-4 a substance or a component of a substance used or manufactured as an intermediate or final product or byproduct?
 Yes No → SKIP to Section 8.

7.19 List the pollutants below, including TCDD if applicable.

1.	4.	7.
2.	5.	8.
3.	6.	9.

SECTION 8. BIOLOGICAL TOXICITY TESTING DATA (40 CFR 122.21(g)(11))

Biological Toxicity Testing Data

8.1 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 three years?
 Yes No → SKIP to Section 9.

8.2 Identify the tests and their purposes below.

Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?		Date Submitted
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	

SECTION 9. CONTRACT ANALYSIS INFORMATION (40 CFR 122.21(g)(12))

Contract Analysis Information

9.1 Were any of the analyses reported in Section 7 (on Tables A through C) performed by a contract laboratory or consulting firm?
 Yes No → SKIP to Section 10.


9.2 Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm	PACE Analytical	Clearwater Lab	
Laboratory address	1168 Whigham Road Tuscaloosa, AL 35405	2004 Parkway Road Hoover, AL 35244	
Phone number	(205) 614-6630	(205) 988-9669	
Pollutant(s) analyzed	Oil and Grease	Table A and B	

SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

10.1	In Column 1 below, mark the sections of Form 2F that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or provide attachments.	
	Column 1	Column 2
	<input checked="" type="checkbox"/> Section 1	<input checked="" type="checkbox"/> w/ attachments (e.g., responses for additional outfalls)
	<input checked="" type="checkbox"/> Section 2	<input checked="" type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/> Section 3	<input checked="" type="checkbox"/> w/ site drainage map
	<input checked="" type="checkbox"/> Section 4	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/> Section 5	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/> Section 6	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/> Section 7	<input checked="" type="checkbox"/> Table A <input type="checkbox"/> w/ small business exemption request <input checked="" type="checkbox"/> Table B <input type="checkbox"/> w/ analytical results as an attachment <input type="checkbox"/> Table C <input checked="" type="checkbox"/> Table D
	<input checked="" type="checkbox"/> Section 8	<input type="checkbox"/> w/attachments
	<input checked="" type="checkbox"/> Section 9	<input type="checkbox"/> w/attachments (e.g., responses for additional contact laboratories or firms)
	<input checked="" type="checkbox"/> Section 10	<input type="checkbox"/>

10.2	Certification Statement	
	<i>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.</i>	
	Name (print or type first and last name) Allan Rice	Official title City Administrator
	Signature 	Date signed 2/27/23

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 005S
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))¹

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 and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	ND		ND		1	
2. Biochemical oxygen demand (BOD ₅)	N/A	N/A	N/A	N/A	1	
3. Chemical oxygen demand (COD)	N/A	N/A	N/A	N/A	1	
4. Total suspended solids (TSS)	N/A	N/A	N/A	N/A	1	
5. Total phosphorus	0.0 mg/L	N/A	0.0 mg/L	N/A	1	
6. Total Kjeldahl nitrogen (TKN)	.134 mg/L	N/A	.134 mg/L	N/A	1	
7. Total nitrogen (as N)	1.26 mg/L	N/A	1.26 mg/L	N/A	1	
8. pH (minimum)	N/A		N/A		1	
pH (maximum)	N/A		N/A		1	

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 0055
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))¹

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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 Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information <small>(new source/new dischargers only; use codes in instructions)</small>
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Nitrite-Nitrate	.544 mg/L	N/A	.544 mg/L	N/A	1	
E.Coli	30 col/100mL	N/A	30 col/100mL	N/A	1	
Ammonia	.060 mg/L	N/A	.060 mg/L	N/A	1	

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Outfall Number 005S
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))¹

List each pollutant shown in Exhibits 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
N/A						

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility name Inverness WWTP	Outfall Number 005S
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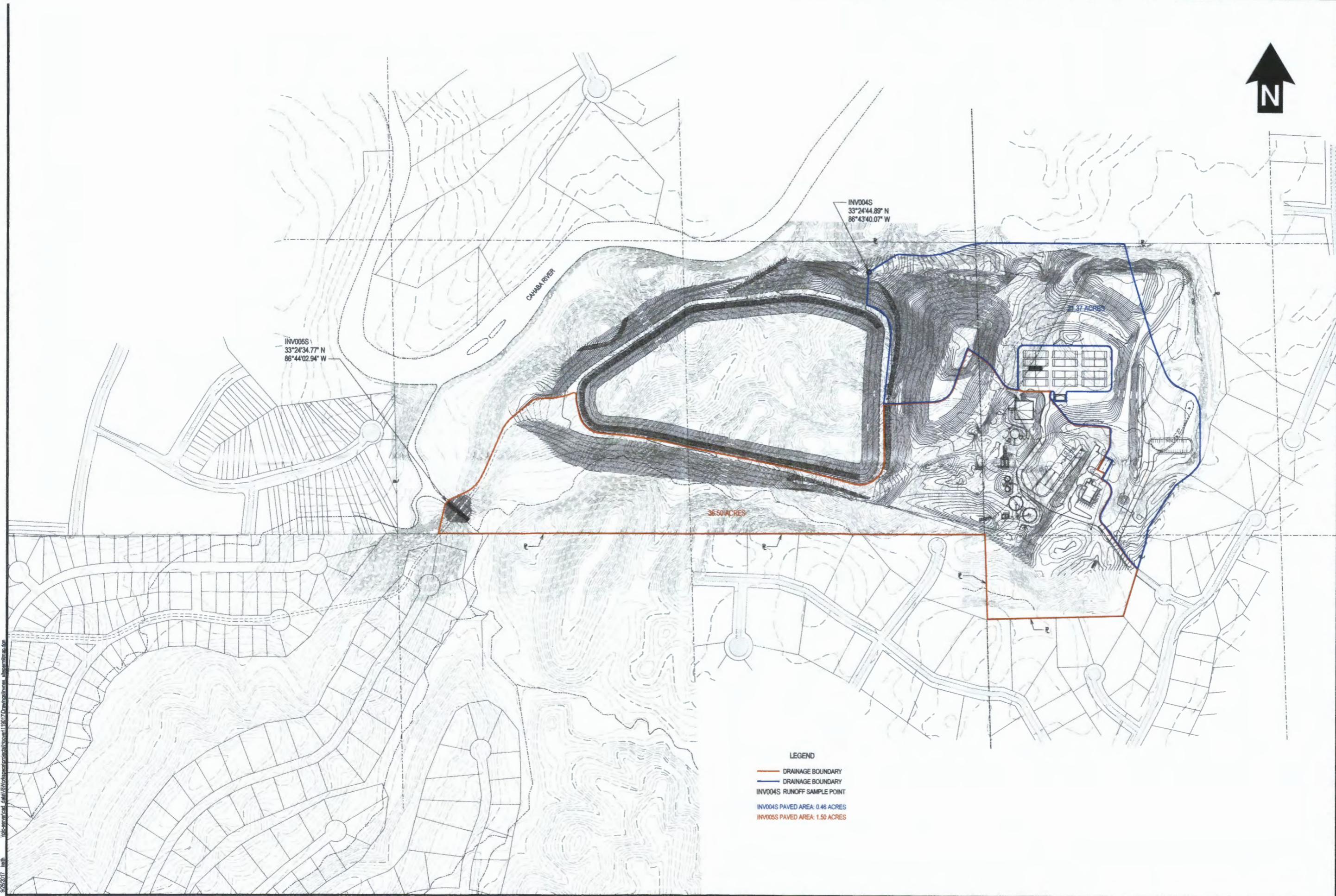
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OMB No. 2040-0004

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
12/20/2022	6.0	.1"	120	unknown	2.26 mgd

Provide a description of the method of flow measurement or estimate.
Estimated based on total rainfall, duration of event and total drainage area.



- LEGEND**
- DRAINAGE BOUNDARY
 - DRAINAGE BOUNDARY
 - INV004S RUNOFF SAMPLE POINT
 - INV004S PAVED AREA: 0.46 ACRES
 - INV005S PAVED AREA: 1.50 ACRES



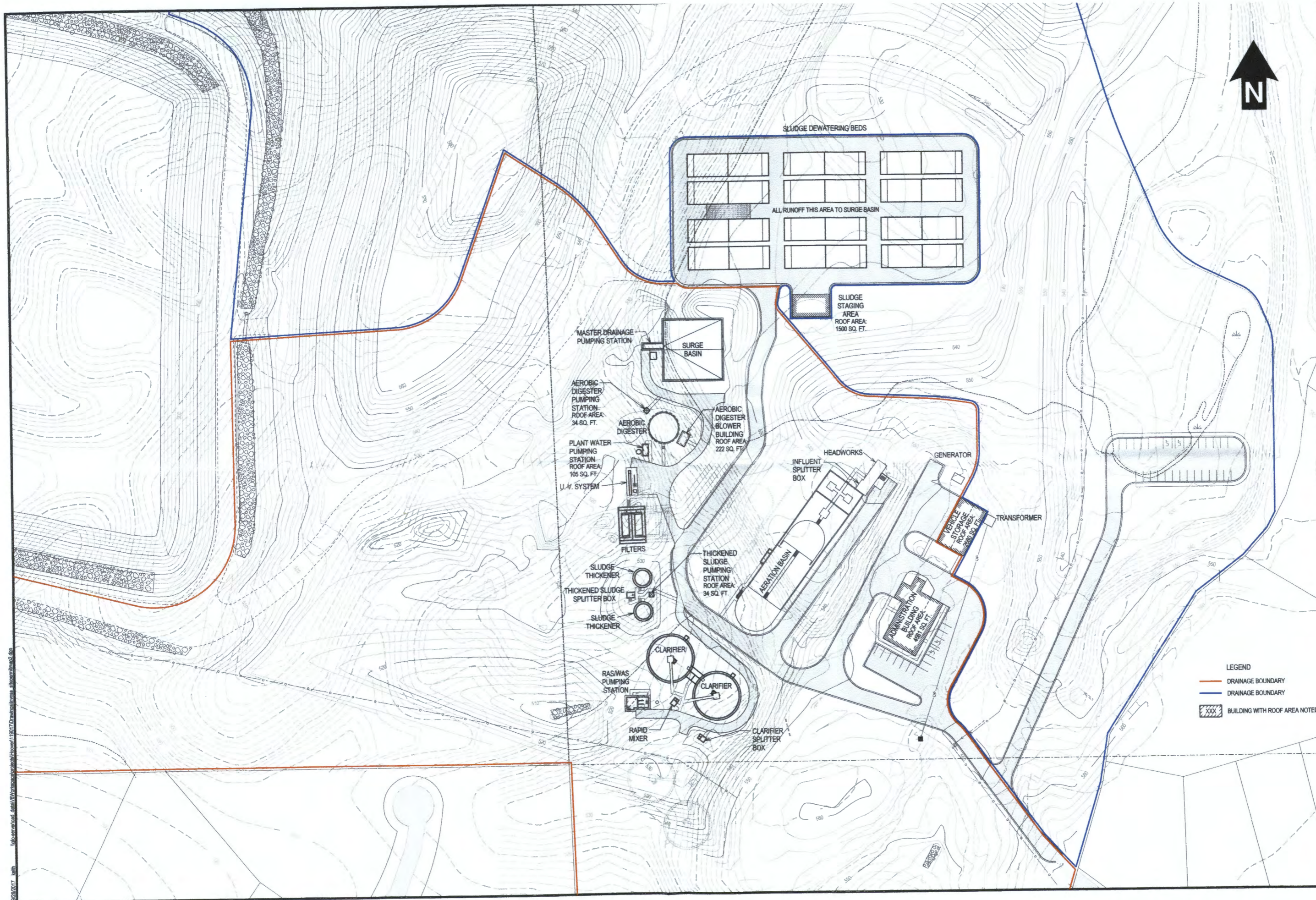
318 Blurry Drive West
 Truss City, Alabama 35244
 P.O. Box 390124
 Hoover, Alabama 35226
 (205) 982-9966 / (205) 982-9039 Fax
 www.garyl.com



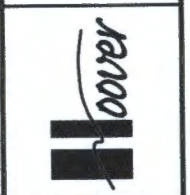
PREPARED FOR
CITY OF HOOVER
 HOOVER, ALABAMA
 PROJECT TITLE
EPA PERMIT TO DISCHARGE STORM WATER
 DRAWING DESCRIPTION
 INVERNESS W.W.T.P.
 SITE MAP

NO.	DESCRIPTION

DESIGNED BY GLO	CHECKED BY GLO
DRAWN BY KBF	
SCALE: 1"= 200'	
DRAWING NUMBER: N/A	
SHEET NUMBER: 1 OF 2	
PROJECT NUMBER: 119017	
DATE: SEPTEMBER, 2017	

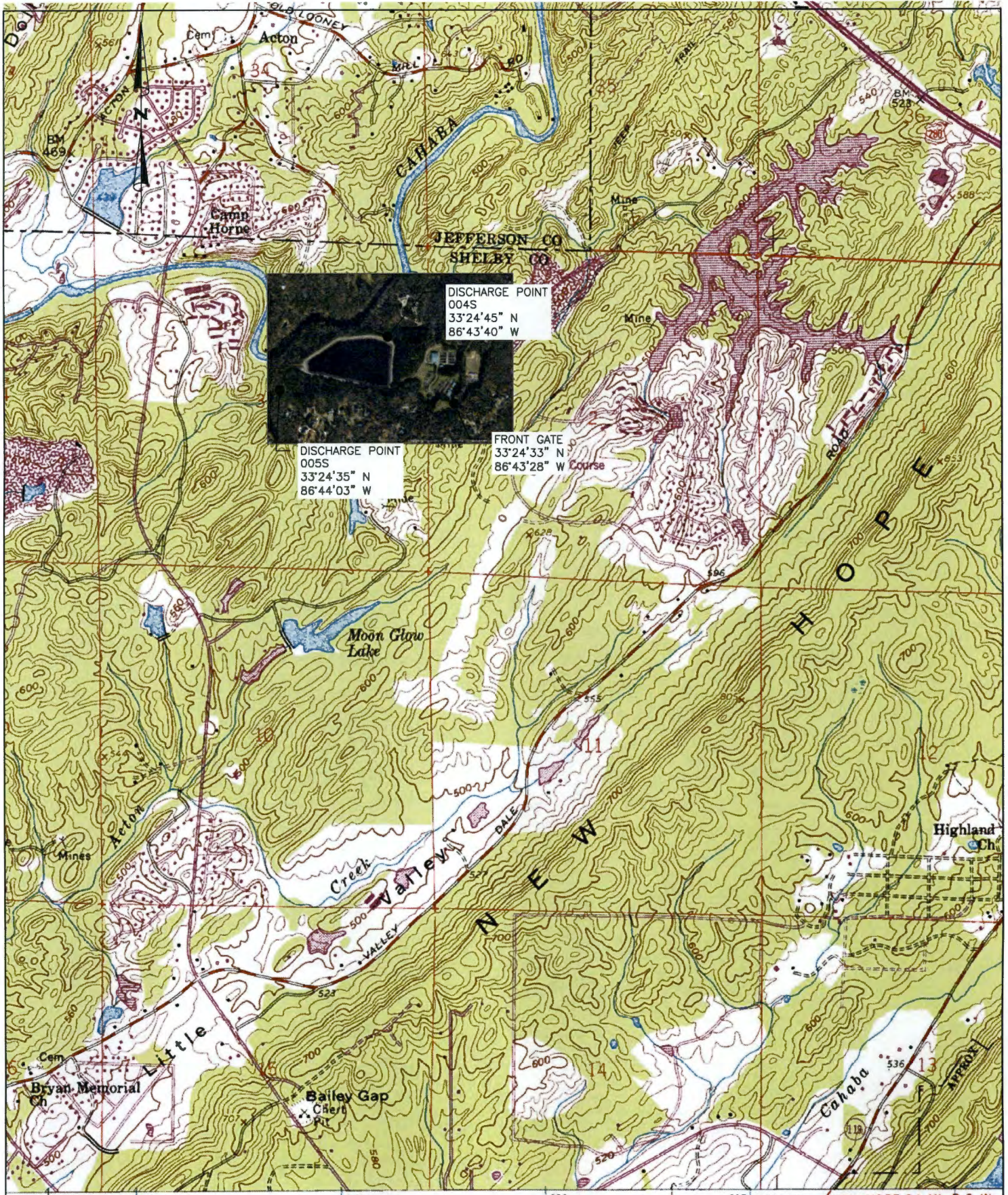


110 Energy Drive West
 Truss Coverage
 Hoover, Alabama 35244
 P.O. Box 240124
 Hoover, Alabama 35216
 (205) 942-9406 / (205) 942-9030 Fax
 www.garyl.com



PREPARED FOR
CITY OF HOOVER
 HOOVER, ALABAMA
 PROJECT TITLE
EPA PERMIT TO DISCHARGE STORM WATER
 HOOPER ASSOCIATES
 HOOPER, ALABAMA
 ENLARGED SITE MAP

DESIGNED BY:	GLO	CHECKED BY:	GLO
DRAWN BY:	KBF		
SCALE:	1" = 80'		
DRAWING NUMBER:	N/A		
SHEET NUMBER:	2 OF 2		
PROJECT NUMBER:	119017		
DATE:	SEPTEMBER, 2017		
DRAWING TITLE:	Hoover_sitemap2.dgn		



DISCHARGE POINT
004S
33°24'45" N
86°43'40" W

DISCHARGE POINT
005S
33°24'35" N
86°44'03" W

FRONT GATE
33°24'33" N
86°43'28" W Course

INVERNESS WWTP - WASTE WATER
CLEARWATER SOLUTIONS
HOOVER, ALABAMA

SCALE: 1" = 2000'

1

QUAD MAP

GMC #

1/23/2023

DRAWN BY: JRA

44750 Highway 17
Vernon, AL 35592
T 205.695.9137
GMCNETWORK.COM



EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Form Approved 03/05/19 OMB No. 2040-0004	
PART 2		PERMIT APPLICATION INFORMATION (40 CFR 122.21(q))		
Complete this part if you have an effective NPDES permit or have been directed by the NPDES permitting authority to submit a full permit application. In other words, complete this part if your facility has, or is applying for, an NPDES permit. Part 2 is divided into five sections. Section 1 pertains to all applicants. The applicability of Sections 2 to 5 depends on your facility's sewage sludge use or disposal practices. See the instructions to determine which sections you are required to complete.				
PART 2, SECTION 1. GENERAL INFORMATION (40 CFR 122.21(q)(1-7) AND (q)(13))				
All Part 2 applicants must complete this section.				
Facility Information				
General Information	1.1	Facility name Inverness WWTP		
		Mailing address (street or P.O. box) 100 Municipal Lane		
		City or town Hoover	State Alabama	ZIP code 35216
		Phone number		
		Contact name (first and last) Mike McCary	Title Chief Operator	Email address michael.mccary@clearwatersol.com
		Location address (street, route number, or other specific identifier) 3308 Afton Circle		<input type="checkbox"/> Same as mailing address
		City or town Hoover	State Alabama	ZIP code 35242
	1.2	Is this facility a Class I sludge management facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
	1.3	Facility Design Flow Rate	1.2 million gallons per day (mgd)	
	1.4	Total Population Served	7200	
1.5	Ownership Status			
	<input type="checkbox"/> Public—federal <input type="checkbox"/> Public—state <input checked="" type="checkbox"/> Other public (specify) <u>municipal</u> <input type="checkbox"/> Private <input type="checkbox"/> Other (specify) _____			
Applicant Information				
1.6	Is applicant different from entity listed under Item 1.1 above? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.8 (Part 2, Section 1).			
1.7	Applicant name City of Hoover			
	Applicant mailing address (street or P.O. box) 100 Municipal Lane			
	City or town Hoover	State AL	ZIP code 35216	
	Contact name (first and last) Allan Rice	Title City Administrator	Phone number {205} 444-7541	
	Email address arice@hooveralabama.gov			
1.8	Is the applicant the facility's owner, operator, or both? (Check only one response.) <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Both			
1.9	To which entity should the NPDES permitting authority send correspondence? (Check only one response.) <input type="checkbox"/> Facility <input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Facility and applicant (they are one and the same)			

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MAR 02 2023

**IND/MUN BRANCH
WATER DIVISION**

EPA Identification Number
AL0025852

NPDES Permit Number
AL0025852

Facility Name
Inverness WWTP

Form Approved 03/05/19
OMB No. 2040-0004

1.10	Facility's NPDES permit number	
	<input type="checkbox"/> Check here if you do not have an NPDES permit but are otherwise required to submit Part 2 of Form 2S.	AL0025852

1.11	Indicate all other federal, state, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices below.		
------	--	--	--

<input type="checkbox"/>	RCRA (hazardous wastes)	<input type="checkbox"/>	Nonattainment program (CAA)	<input type="checkbox"/>	NESHAPs (CAA)
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<input type="checkbox"/>	PSD (air emissions)	<input type="checkbox"/>	Dredge or fill (CWA Section 404)	<input type="checkbox"/>	Other (specify) _____ _____
<input type="checkbox"/>	Ocean dumping (MPRSA)	<input type="checkbox"/>	UIC (underground injection of fluids)		

Indian Country

1.12	Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No → SKIP to Item 1.14 (Part 2, Section 1) below.
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1.13	Provide a description of the generation, treatment, storage, land application, or disposal of sewage sludge that occurs.
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Topographic Map

1.14	Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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Line Drawing

1.15	Have you attached a line drawing and/or a narrative description that identifies all sewage sludge practices that will be employed during the term of the permit containing all the required information to this application? (See instructions for specific requirements.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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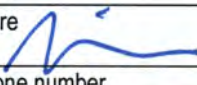
Contractor Information

1.16	Do contractors have any operational or maintenance responsibilities related to sewage sludge generation, treatment, use, or disposal at the facility?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No → SKIP to Item 1.18 (Part 2, Section 1) below.
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1.17	Provide the following information for each contractor.			
	<input type="checkbox"/> Check here if you have attached additional sheets to the application package.			

	Contractor 1	Contractor 2	Contractor 3
Contractor company name	Clearwater Solutions, LLC		
Mailing address (street or P.O. box)	3308 Afton Circle		
City, state, and ZIP code	Hoover, AL 35242		
Contact name (first and last)	Mike McCary		
Telephone number	(205) 365-9813		
Email address	ael.mccary@clearwatersol		

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Form Approved 03/05/19 OMB No. 2040-0004
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General Information Continued	1.17		Contractor 1	Contractor 2	Contractor 3	
	cont.	Responsibilities of contractor	Operations and Maintenance of WWTP including Testing			
	Pollutant 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 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 4.5 years old.					
	<input checked="" type="checkbox"/> Check here if you have attached additional sheets to the application package.					
	1.18	Pollutant	Average Monthly Concentration (mg/kg dry weight)	Analytical Method	Detection Level	
		Arsenic				
		Cadmium				
		Chromium				
		Copper				
	Lead					
	Mercury					
	Molybdenum					
	Nickel					
	Selenium					
	Zinc					
Checklist and Certification Statement						
1.19	In Column 1 below, mark the sections of Form 2S, Part 2, that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing. Note that not all applicants are required to complete all sections or provide attachments. See Exhibit 2S-2 in the Instructions.					
	Column 1			Column 2		
	<input checked="" type="checkbox"/> Section 1 (General Information)			<input checked="" type="checkbox"/> w/ attachments		
	<input type="checkbox"/> Section 2 (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)			<input type="checkbox"/> w/ attachments		
	<input type="checkbox"/> Section 3 (Land Application of Bulk Sewage Sludge)			<input type="checkbox"/> w/ attachments		
	<input type="checkbox"/> Section 4 (Surface Disposal)			<input type="checkbox"/> w/ attachments		
	<input type="checkbox"/> Section 5 (Incineration)			<input type="checkbox"/> w/ attachments		
1.20	Certification Statement					
	<i>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.</i>					
	Name (print or type first and last name) Allan Rice			Official title City Administrator		
	Signature 			Date signed 2/27/23		
	Telephone number (205) 444-7541					
Upon the request of the NPDES permitting authority, you must submit any other information the authority deems necessary to assess sewage sludge use or disposal practices at your facility and identify appropriate permitting requirements.						

PART 2, SECTION 2. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE (40 CFR 122.21(q)(8) THROUGH (12))

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge

2.1 Does your facility generate sewage sludge or derive a material from sewage sludge?
 Yes No → SKIP to Part 2, Section 3.

Amount Generated Onsite

2.2 Total dry metric tons per 365-day period generated at your facility: 673

Amount Received from Off Site Facility

2.3 Does your facility receive sewage sludge from another facility for treatment use or disposal?
 Yes No → SKIP to Item 2.7 (Part 2, Section 2) below.

2.4 Indicate the total number of facilities from which you receive sewage sludge for treatment, use, or disposal:

Provide the following information for each of the facilities from which you receive sewage sludge.

Check here if you have attached additional sheets to the application package.

2.5 Name of facility _____
 Mailing address (street or P.O. box) _____
 City or town _____ State _____ ZIP code _____
 Contact name (first and last) _____ Title _____ Phone number _____ Email address _____
 Location address (street, route number, or other specific identifier) _____ Same as mailing address
 City or town _____ State _____ ZIP code _____
 County _____ County code _____ Not available

2.6 Indicate the amount of sewage sludge received, the applicable pathogen class and reduction alternative, and the applicable vector reduction option provided at the offsite facility.

Amount (dry metric tons)	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
	<input type="checkbox"/> Not applicable <input type="checkbox"/> Class A, Alternative 1 <input type="checkbox"/> Class A, Alternative 2 <input type="checkbox"/> Class A, Alternative 3 <input type="checkbox"/> Class A, Alternative 4 <input type="checkbox"/> Class A, Alternative 5 <input type="checkbox"/> Class A, Alternative 6 <input type="checkbox"/> Class B, Alternative 1 <input type="checkbox"/> Class B, Alternative 2 <input type="checkbox"/> Class B, Alternative 3 <input type="checkbox"/> Class B, Alternative 4 <input type="checkbox"/> Domestic septage, pH adjustment	<input type="checkbox"/> Not applicable <input type="checkbox"/> Option 1 <input type="checkbox"/> Option 2 <input type="checkbox"/> Option 3 <input type="checkbox"/> Option 4 <input type="checkbox"/> Option 5 <input type="checkbox"/> Option 6 <input type="checkbox"/> Option 7 <input type="checkbox"/> Option 8 <input type="checkbox"/> Option 9 <input type="checkbox"/> Option 10 <input type="checkbox"/> Option 11

2.7 Identify the treatment process(es) that are known to occur at the offsite facility, including blending activities and treatment to reduce pathogens or vector attraction properties. (Check all that apply.)

<input type="checkbox"/> Preliminary operations (e.g., sludge grinding and degritting)	<input type="checkbox"/> Thickening (concentration)
<input type="checkbox"/> Stabilization	<input type="checkbox"/> Anaerobic digestion
<input type="checkbox"/> Composting	<input type="checkbox"/> Conditioning
<input type="checkbox"/> Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	<input checked="" type="checkbox"/> Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
<input type="checkbox"/> Heat drying	<input type="checkbox"/> Thermal reduction
<input type="checkbox"/> Methane or biogas capture and recovery	<input type="checkbox"/> Other (specify) _____

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Treatment Provided at Your Facility

2.8 For each sewage sludge use or disposal practice, indicate the applicable pathogen class and reduction alternative and the applicable vector attraction reduction option provided at your facility. Attach additional pages, as necessary.

Use or Disposal Practice (check one)	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
<input type="checkbox"/> Land application of bulk sewage <input type="checkbox"/> Land application of biosolids (bulk) <input type="checkbox"/> Land application of biosolids (bags) <input checked="" type="checkbox"/> Surface disposal in a landfill <input type="checkbox"/> Other surface disposal <input type="checkbox"/> Incineration	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Class A, Alternative 1 <input type="checkbox"/> Class A, Alternative 2 <input type="checkbox"/> Class A, Alternative 3 <input type="checkbox"/> Class A, Alternative 4 <input type="checkbox"/> Class A, Alternative 5 <input type="checkbox"/> Class A, Alternative 6 <input type="checkbox"/> Class B, Alternative 1 <input type="checkbox"/> Class B, Alternative 2 <input type="checkbox"/> Class B, Alternative 3 <input type="checkbox"/> Class B, Alternative 4 <input type="checkbox"/> Domestic septage, pH adjustment	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Option 1 <input type="checkbox"/> Option 2 <input type="checkbox"/> Option 3 <input type="checkbox"/> Option 4 <input type="checkbox"/> Option 5 <input type="checkbox"/> Option 6 <input type="checkbox"/> Option 7 <input type="checkbox"/> Option 8 <input type="checkbox"/> Option 9 <input type="checkbox"/> Option 10 <input type="checkbox"/> Option 11

2.9 Identify the treatment process(es) used at your facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge? (Check all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> Preliminary operations (e.g., sludge grinding and degritting) | <input type="checkbox"/> Thickening (concentration) |
| <input type="checkbox"/> Stabilization | <input type="checkbox"/> Anaerobic digestion |
| <input type="checkbox"/> Composting | <input type="checkbox"/> Conditioning |
| <input type="checkbox"/> Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization) | <input checked="" type="checkbox"/> Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons) |
| <input type="checkbox"/> Heat drying | <input type="checkbox"/> Thermal reduction |
| <input type="checkbox"/> Methane or biogas capture and recovery | |

2.10 Describe any other sewage sludge treatment or blending activities not identified in Items 2.8 and 2.9 (Part 2, Section 2) above.

- Check here if you have attached the description to the application package.
None

Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1 to 8

2.11 Does the sewage sludge from your facility meet the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, Class A pathogen reduction requirements at 40 CFR 503.32(a), and one of the vector attraction reduction requirements at 40 CFR 503.33(b)(1)–(8) and is it land applied?

- Yes No → SKIP to Item 2.14 (Part 2, Section 2) below.

2.12 Total dry metric tons per 365-day period of sewage sludge subject to this subsection that is applied to the land:

2.13 Is sewage sludge subject to this subsection placed in bags or other containers for sale or give-away for application to the land?

- Yes No

Check here once you have completed Items 2.11 to 2.13, then → SKIP to Item 2.32 (Part 2, Section 2) below.

EPA Identification Number
AL0025852

NPDES Permit Number
AL0025852

Facility Name
Inverness WWTP

Form Approved 03/05/19
OMB No. 2040-0004

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

2.14 Do you place sewage sludge in a bag or other container for sale or give-away for land application?
 Yes No → SKIP to Item 2.17 (Part 2, Section 2) below.

2.15 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:

2.16 Attach 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.
 Check here to indicate that you have attached all labels or notices to this application package.

Check here once you have completed Items 2.14 to 2.16, then → SKIP to Part 2, Section 2, Item 2.32.

Shipment Off Site for Treatment or Blending

2.17 Does another facility provide treatment or blending of your facility's sewage sludge? (This question does not pertain to dewatered sludge sent directly to a land application or surface disposal site.)
 Yes No → SKIP to Item 2.32 (Part 2, Section 2) below.

2.18 Indicate the total number of facilities that provide treatment or blending of your facility's sewage sludge. Provide the information in Items 2.19 to 2.26 (Part 2, Section 2) below for each facility.
 Check here if you have attached additional sheets to the application package.

2.19 Name of receiving facility

Mailing address (street or P.O. box)

City or town State ZIP code

Contact name (first and last) Title Phone number Email address

Location address (street, route number, or other specific identifier) Same as mailing address

City or town State ZIP code

2.20 Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:

2.21 Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility or reduce the vector attraction properties of sewage sludge from your facility?
 Yes No → SKIP to Item 2.24 (Part 2, Section 2) below.

2.22 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
<input type="checkbox"/> Not applicable	<input type="checkbox"/> Not applicable
<input type="checkbox"/> Class A, Alternative 1	<input type="checkbox"/> Option 1
<input type="checkbox"/> Class A, Alternative 2	<input type="checkbox"/> Option 2
<input type="checkbox"/> Class A, Alternative 3	<input type="checkbox"/> Option 3
<input type="checkbox"/> Class A, Alternative 4	<input type="checkbox"/> Option 4
<input type="checkbox"/> Class A, Alternative 5	<input type="checkbox"/> Option 5
<input type="checkbox"/> Class A, Alternative 6	<input type="checkbox"/> Option 6
<input type="checkbox"/> Class B, Alternative 1	<input type="checkbox"/> Option 7
<input type="checkbox"/> Class B, Alternative 2	<input type="checkbox"/> Option 8
<input type="checkbox"/> Class B, Alternative 3	<input type="checkbox"/> Option 9
<input type="checkbox"/> Class B, Alternative 4	<input type="checkbox"/> Option 10
<input type="checkbox"/> Domestic septage, pH adjustment	<input type="checkbox"/> Option 11

EPA Identification Number AL0025852	NPDES Permit Number AL0025852	Facility Name Inverness WWTP	Form Approved 03/05/19 OMB No. 2040-0004
Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued	2.23	Which treatment process(es) are used at the receiving facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge from your facility? (Check all that apply.)	
		<input type="checkbox"/> Preliminary operations (e.g., sludge grinding and degritting)	<input type="checkbox"/> Thickening (concentration)
		<input type="checkbox"/> Stabilization	<input type="checkbox"/> Anaerobic digestion
		<input type="checkbox"/> Composting	<input type="checkbox"/> Conditioning
		<input type="checkbox"/> Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	<input type="checkbox"/> Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
		<input type="checkbox"/> Heat drying	<input type="checkbox"/> Thermal reduction
		<input type="checkbox"/> Methane or biogas capture and recovery	<input type="checkbox"/> Other (specify) _____
	2.24	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).	
		<input type="checkbox"/> Check here to indicate that you have attached material.	
	2.25	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?	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No → SKIP to Item 2.32 (Part 2, Section 2) below.
	2.26	Attach a copy of all labels or notices that accompany the product being sold or given away.	
		<input type="checkbox"/> Check here to indicate that you have attached material.	
		<input type="checkbox"/> Check here once you have completed Items 2.17 to 2.26 (Part 2, Section 2), then → SKIP to Item 2.32 (Part 2, Section 2) below.	
	Land Application of Bulk Sewage Sludge		
2.27	Is sewage sludge from your facility applied to the land?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> No → SKIP to Item 2.32 (Part 2, Section 2) below.	
2.28	Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:		
2.29	Did you identify all land application sites in Part 2, Section 3 of this application?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> No → Submit a copy of the land application plan with your application.	
2.30	Are any land application sites located in states other than the state where you generate sewage sludge or derive a material from sewage sludge?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> No → SKIP to Item 2.32 (Part 2, Section 2) below.	
2.31	Describe how you notify the NPDES permitting authority for the states where the land application sites are located. Attach a copy of the notification.		
	<input type="checkbox"/> Check here if you have attached the explanation to the application package.		
	<input type="checkbox"/> Check here if you have attached the notification to the application package.		
Surface Disposal			
2.32	Is sewage sludge from your facility placed on a surface disposal site?		
	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No → SKIP to Item 2.39 (Part 2, Section 2) below.	
2.33	Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period:		
2.34	Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?		
	<input type="checkbox"/> Yes → SKIP to Item 2.39 (Part 2, Section 2) below.	<input type="checkbox"/> No	
2.35	Indicate the total number of surface disposal sites to which you send your sewage sludge. (Provide the information in Items 2.36 to 2.38 of Part 2, Section 2, for each facility.)		
	<input type="checkbox"/> Check here if you have attached additional sheets to the application package.		

EPA Identification Number
AL0025852

NPDES Permit Number
AL0025852

Facility Name
Inverness WWTP

Form Approved 03/05/19
OMB No. 2040-0004

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.36	Site name or number of surface disposal site you do not own or operate			
	Mailing address (street or P.O. box)			
	City or Town		State	ZIP Code
	Contact Name (first and last)	Title	Phone Number	Email Address
2.37	Site Contact (Check all that apply.) <input type="checkbox"/> Owner <input type="checkbox"/> Operator			
2.38	Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period:			
Incineration				
2.39	Is sewage sludge from your facility fired in a sewage sludge incinerator? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 2.46 (Part 2, Section 2) below.			
2.40	Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period:			
2.41	Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? <input type="checkbox"/> Yes → SKIP to Item 2.46 (Part 2, Section 2) below. <input type="checkbox"/> No			
2.42	Indicate the total number of sewage sludge incinerators used that you do not own or operate. (Provide the information in Items 2.43 to 2.45 directly below for each facility.) <input type="checkbox"/> Check here if you have attached additional sheets to the application package.			
2.43	Incinerator name or number			
	Mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
	Location address (street, route number, or other specific identifier)			<input type="checkbox"/> Same as mailing address
	City or town		State	ZIP code
2.44	Contact (check all that apply) <input type="checkbox"/> Incinerator owner <input type="checkbox"/> Incinerator operator			
2.45	Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period:			
Disposal in a Municipal Solid Waste Landfill				
2.46	Is sewage sludge from your facility placed on a municipal solid waste landfill? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Part 2, Section 3.			
2.47	Indicate the total number of municipal solid waste landfills used. (Provide the information in Items 2.48 to 2.52 directly below for each facility.) <input type="checkbox"/> Check here if you have attached additional sheets to the application package.			one

EPA Identification Number AL0025852		NPDES Permit Number AL0025852		Facility Name Inverness WWTP		Form Approved 03/05/19 OMB No. 2040-0004		
Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued	2.48	Name of landfill Shelby County Landfill						
	Mailing address (street or P.O. box) 401 Landfill Road							
	City or town Columbiana				State Alabama		ZIP code 35051	
	Contact name (first and last) Brandon Hamilton			Title ESM	Phone number (205) 669-3737		Email address	
	Location address (street, route number, or other specific identifier)						<input checked="" type="checkbox"/> Same as mailing address	
	County			County code			<input type="checkbox"/> Not available	
	City or town			State		ZIP code		
	2.49	Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:					673	
	2.50	List 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				
		59-15	ADEM Municipal Solid Waste					
2.51	Attach to the 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). <input checked="" type="checkbox"/> Check here to indicate you have attached the requested information.							
2.52	Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR 258? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							

PART 2, SECTION 3 LAND APPLICATION OF BULK SEWAGE SLUDGE (40 CFR 122.21(q)(9))

Land Application of Bulk Sewage Sludge

3.1	Does your facility apply sewage sludge to land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Part 2, Section 4.		
3.2	Do any of the following conditions apply? <ul style="list-style-type: none"> • The sewage sludge meets the ceiling concentrations in Table 1 of 40 CFR 503.12, the pollutant concentrations in Table 3 of 40 CFR 503.13, Class A pathogen reduction requirements at 40 CFR 503.32(a), and one of the vector attraction reduction requirements at 40 CFR 503.33(b)(1)–(8); • The sewage sludge is sold or given away in a bag or other container for application to the land; or • You provide the sewage sludge to another facility for treatment or blending. <input type="checkbox"/> Yes → SKIP to Part 2, Section 4. <input type="checkbox"/> No		
3.3	Complete Section 3 for every site on which the sewage sludge is applied. <input type="checkbox"/> Check here if you have attached sheets to the application package for one or more land application sites.		
Identification of Land Application Site			
3.4	Site name or number		
	Location address (street, route number, or other specific identifier)		<input type="checkbox"/> Same as mailing address
	County	County code	<input type="checkbox"/> Not available
	City or town	State	ZIP code
Latitude/Longitude of Land Application Site (see instructions)			
	Latitude		Longitude
	° ' "		° ' "
Method of Determination			
	<input type="checkbox"/> USGS map <input type="checkbox"/> Field survey <input type="checkbox"/> Other (specify) _____		
3.5	Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. <input type="checkbox"/> Check here to indicate you have attached a topographic map for this site.		
Owner Information			
3.6	Are you the owner of this land application site? <input type="checkbox"/> Yes → SKIP to Item 3.8 (Part 2, Section 3) below. <input type="checkbox"/> No		
3.7	Owner name		
	Mailing address (street or P.O. box)		
	City or town	State	ZIP code
	Contact name (first and last)	Title	Phone number Email address
Applier Information			
3.8	Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? <input type="checkbox"/> Yes → SKIP to Item 3.10 (Part 2, Section 3) below. <input type="checkbox"/> No		
3.9	Applier's name		
	Mailing address (street or P.O. box)		
	City or town	State	ZIP code
	Contact name (first and last)	Title	Phone number Email address

Land Application of Bulk Sewage Sludge Continued

Site Type			
3.10	Type of land application:	<input type="checkbox"/> Agricultural land <input type="checkbox"/> Reclamation site <input type="checkbox"/> Other (describe)	<input type="checkbox"/> Forest <input type="checkbox"/> Public contact site
Crop or Other Vegetation Grown on Site			
3.11	What type of crop or other vegetation is grown on this site?		
3.12	What is the nitrogen requirement for this crop or vegetation?		
Vector Attraction Reduction			
3.13	Are the vector attraction reduction requirements at 40 CFR 503.33(b)(9) and (b)(10) met when sewage sludge is applied to the land application site?		
	<input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.16 (Part 2, Section 3) below.		
3.14	Indicate which vector attraction reduction option is met. (Check only one response.)		
	<input type="checkbox"/> Option 9 (injection below land surface) <input type="checkbox"/> Option 10 (incorporation into soil within 6 hours)		
3.15	Describe any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge.		
	<input type="checkbox"/> Check here if you have attached your description to the application package.		
Cumulative Loadings and Remaining Allotments			
3.16	Is the sewage sludge applied to this site since July 20, 1993, subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2)?		
	<input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Part 2, Section 4.		
3.17	Have you contacted the NPDES 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?		
	<input type="checkbox"/> Yes <input type="checkbox"/> No → Sewage sludge subject to CPLRs may not be applied to this site. SKIP to Part 2, Section 4.		
3.18	Provide the following information about your NPDES permitting authority:		
	NPDES permitting authority name		
	Contact person		
	Telephone number		
	Email address		
3.19	Based on your inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?		
	<input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Part 2, Section 4.		
3.20	Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge subject 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.		
	<input type="checkbox"/> Check here to indicate that additional pages are attached.		
	Facility name		
	Mailing address (street or P.O. box)		
	City or town	State	ZIP code
	Contact name (first and last)	Title	Phone number
			Email address

PART 2, SECTION 4 SURFACE DISPOSAL (40 CFR 122.21(q)(10))

Surface Disposal

4.1	Do you own or operate a surface disposal site?		
	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No → SKIP to Part 2, Section 5.	
4.2	Complete all items in Section 4 for each active sewage sludge unit that you own or operate.		
	<input type="checkbox"/> Check here to indicate that you have attached material to the application package for one or more active sewage sludge units.		
Information on Active Sewage Sludge Units			
4.3	Unit name or number		
	Mailing address (street or P.O. box)		
	City or town	State	ZIP code
	Contact name (first and last)	Title	Phone number Email address
	Location address (street, route number, or other specific identifier)		<input type="checkbox"/> Same as mailing address
	County	County code	<input type="checkbox"/> Not available
	City or town	State	ZIP code
Latitude/Longitude of Active Sewage Sludge Unit (see instructions)			
	Latitude		Longitude
	° ' "		° ' "
Method of Determination			
	<input type="checkbox"/> USGS map	<input type="checkbox"/> Field survey	<input type="checkbox"/> Other (specify) _____
4.4	Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.		
	<input type="checkbox"/> Check here to indicate that you have completed and attached a topographic map.		
4.5	Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:		
4.6	Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:		
4.7	Does the active sewage sludge unit have a liner with a maximum permeability of 1×10^{-7} centimeters per second (cm/sec)?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> No → SKIP to Item 4.9 (Part 2, Section 4) below.	
4.8	Describe the liner.		
	<input type="checkbox"/> Check here to indicate that you have attached a description to the application package.		
4.9	Does the active sewage sludge unit have a leachate collection system?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> No → SKIP to Item 4.11 (Part 2, Section 4) below.	
4.10	Describe the leachate collection system and the method used for leachate disposal and provide the numbers of any federal, state, or local permit(s) for leachate disposal.		
	<input type="checkbox"/> Check here to indicate that you have attached the description to the application package.		

Surface Disposal Continued

4.11	Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 4.13 (Part 2, Section 4) below.		
4.12	Provide the actual distance in meters:	_____ meters	
4.13	Remaining capacity of active sewage sludge unit in dry metric tons:	_____ dry metric tons	
4.14	Anticipated closure date for active sewage sludge unit, if known (MM/DD/YYYY): _____		
4.15	Attach a copy of any closure plan that has been developed for this active sewage sludge unit. <input type="checkbox"/> Check here to indicate that you have attached a copy of the closure plan to the application package.		
Sewage Sludge from Other Facilities			
4.16	Is sewage sludge sent to this active sewage sludge unit from any facilities other than your facility? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 4.21 (Part 2, Section 4) below.		
4.17	Indicate the total number of facilities (other than your facility) that send sewage sludge to this active sewage sludge unit. (Complete Items 4.18 to 4.20 directly below for each such facility.) <input type="checkbox"/> Check here to indicate that you have attached responses for each facility to the application package.		
4.18	Facility name _____		
	Mailing address (street or P.O. box) _____		
	City or town _____	State _____	ZIP code _____
	Contact name (first and last) _____	Title _____	Phone number _____ Email address _____
4.19	Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge before leaving the other facility.		
	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option	
	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Not applicable	
	<input type="checkbox"/> Class A, Alternative 1	<input type="checkbox"/> Option 1	
	<input type="checkbox"/> Class A, Alternative 2	<input type="checkbox"/> Option 2	
	<input type="checkbox"/> Class A, Alternative 3	<input type="checkbox"/> Option 3	
	<input type="checkbox"/> Class A, Alternative 4	<input type="checkbox"/> Option 4	
	<input type="checkbox"/> Class A, Alternative 5	<input type="checkbox"/> Option 5	
	<input type="checkbox"/> Class A, Alternative 6	<input type="checkbox"/> Option 6	
	<input type="checkbox"/> Class B, Alternative 1	<input type="checkbox"/> Option 7	
	<input type="checkbox"/> Class B, Alternative 2	<input type="checkbox"/> Option 8	
	<input type="checkbox"/> Class B, Alternative 3	<input type="checkbox"/> Option 9	
	<input type="checkbox"/> Class B, Alternative 4	<input type="checkbox"/> Option 10	
	<input type="checkbox"/> Domestic septage, pH adjustment	<input type="checkbox"/> Option 11	
4.20	Which treatment process(es) are used at the other facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge before leaving the other facility? (Check all that apply.)		
	<input type="checkbox"/> Preliminary operations (e.g., sludge grinding and degritting)	<input type="checkbox"/> Thickening (concentration)	
	<input type="checkbox"/> Stabilization	<input type="checkbox"/> Anaerobic digestion	
	<input type="checkbox"/> Composting	<input type="checkbox"/> Conditioning	
	<input type="checkbox"/> Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	<input type="checkbox"/> Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)	
	<input type="checkbox"/> Heat drying	<input type="checkbox"/> Thermal reduction	
	<input type="checkbox"/> Methane or biogas capture and recovery	<input type="checkbox"/> Other (specify) _____	

PART 2, SECTION 5 INCINERATION (40 CFR 122.21(q)(11))

Incineration

Incinerator Information

5.1	Do you fire sewage sludge in a sewage sludge incinerator? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to END.		
5.2	Indicate the total number of incinerators used at your facility. (Complete the remainder of Section 5 for each such incinerator.) <input type="checkbox"/> Check here to indicate that you have attached information for one or more incinerators.		
5.3	Incinerator name or number		
	Location address (street, route number, or other specific identifier)		
	County	County code	<input type="checkbox"/> Not available
	City or town	State	ZIP code
	Latitude/Longitude of Incinerator (see instructions)		
	Latitude		Longitude
	. ' "		. ' "
	Method of Determination		
	<input type="checkbox"/> USGS map <input type="checkbox"/> Field survey <input type="checkbox"/> Other (specify) _____		
Amount Fired			
5.4	Dry metric tons per 365-day period of sewage sludge fired in the sewage sludge incinerator:		
Beryllium NESHAP			
5.5	Submit information, test data, and a description of measures taken that demonstrate whether the sewage sludge incinerated is beryllium-containing waste and will continue to remain as such. <input type="checkbox"/> Check here to indicate that you have attached this material to the application package.		
5.6	Is the sewage sludge fired in this incinerator "beryllium-containing waste" as defined at 40 CFR 61.31? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.8 (Part 2, Section 5) below.		
5.7	Submit with this application a complete report of the latest beryllium emission rate testing <i>and</i> documentation of ongoing incinerator operating parameters indicating that the NESHAP emission rate limit for beryllium has been and will continue to be met. <input type="checkbox"/> Check here to indicate that you have attached this information.		
Mercury NESHAP			
5.8	Is compliance with the mercury NESHAP being demonstrated via stack testing? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.11 (Part 2, Section 5) below.		
5.9	Submit a complete report of stack testing and documentation of ongoing incinerator operating parameters indicating that the incinerator has met and will continue to meet the mercury NESHAP emission rate limit. <input type="checkbox"/> Check here to indicate that you have attached this information.		
5.10	Provide copies of mercury emission rate tests for the two most recent years in which testing was conducted. <input type="checkbox"/> Check here to indicate that you have attached this information.		
5.11	Do you demonstrate compliance with the mercury NESHAP by sewage sludge sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.13 (Part 2, Section 5) below.		
5.12	Submit a complete report of sewage sludge sampling and documentation of ongoing incinerator operating parameters indicating that the incinerator has met and will continue to meet the mercury NESHAP emission rate limit. <input type="checkbox"/> Check here to indicate that you have attached this information.		

Incineration Continued

Dispersion Factor

5.13	Dispersion factor in micrograms/cubic meter per gram/second:	
5.14	Name and type of dispersion model:	
5.15	Submit a copy of the modeling results and supporting documentation. <input type="checkbox"/> Check here to indicate that you have attached this information.	

Control Efficiency

5.16	Provide the control efficiency, in hundredths, for each of the pollutants listed below.	
	Pollutant	Control Efficiency, in Hundredths
	Arsenic	
	Cadmium	
	Chromium	
	Lead	
	Nickel	
5.17	Attach a copy of the results or performance testing and supporting documentation (including testing dates). <input type="checkbox"/> Check here to indicate that you have attached this information.	

Risk-Specific Concentration for Chromium

5.18	Provide the risk-specific concentration (RSC) used for chromium in micrograms per cubic meter:	
5.19	Was the RSC determined via Table 2 in 40 CFR 503.43? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.21 (Part 2, Section 5) below.	
5.20	Identify the type of incinerator used as the basis. <input type="checkbox"/> Fluidized bed with wet scrubber <input type="checkbox"/> Other types with wet scrubber <input type="checkbox"/> Fluidized bed with wet scrubber and wet electrostatic precipitator <input type="checkbox"/> Other types with wet scrubber and wet electrostatic precipitator	
5.21	Was the RSC determined via Table 6 in 40 CFR 503.43 (site-specific determination)? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.23 (Part 2, Section 5) below.	
5.22	Provide the decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas:	
5.23	Attach the results of incinerator stack tests for hexavalent and total chromium concentrations, including the date(s) of any test(s), with this application. <input type="checkbox"/> Check here to indicate that you have attached this information. <input type="checkbox"/> Not applicable	

Incinerator Parameters

5.24	Do you monitor total hydrocarbons (THC) in the exit gas of the sewage sludge incinerator? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5.25	Do you monitor carbon monoxide (CO) in the exit gas of the sewage sludge incinerator? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5.26	Indicate the type of sewage sludge incinerator.	
5.27	Incinerator stack height in meters:	
5.28	Indicate whether the value submitted in Item 5.27 is (check only one response): <input type="checkbox"/> Actual stack height <input type="checkbox"/> Creditable stack height	

Performance Test Operating Parameters

5.29	Maximum performance test combustion temperature:	
5.30	Performance test sewage sludge feed rate, in dry metric tons/day	
5.31	Indicate whether value submitted in Item 5.30 is (check only one response): <input type="checkbox"/> Average use <input type="checkbox"/> Maximum design	
5.32	Attach supporting documents describing how the feed rate was calculated. <input type="checkbox"/> Check here to indicate that you have attached this information.	
5.33	Submit information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator. <input type="checkbox"/> Check here to indicate that you have attached this information.	

Monitoring Equipment

5.34	List the equipment in place to monitor the listed parameters.	
	Parameter	Equipment in Place for Monitoring
	Total hydrocarbons or carbon monoxide	
	Percent oxygen	
	Percent moisture	
	Combustion temperature	
	Other (describe)	

Air Pollution Control Equipment

5.35	List all air pollution control equipment used with this sewage sludge incinerator. <input type="checkbox"/> Check here if you have attached the list to the application package for the noted incinerator.
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Incineration Continued

END of PART 2

Submit completed application package to your NPDES permitting authority.

LANCE R. LEFLEUR
DIRECTOR



Kay Ivey
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

3/1/2023

Delivered Via Email to Jason Welch

RE: Waste Certification
Domestic wastewater sludge

The Alabama Department of Environmental Management has reviewed your waste certification received on 2/27/2023 and has assigned a Certification Number for this waste as shown below.

Waste Profile #: 010527
Certification #: SW-033125-A003
Expiration Date of Certification: 3/31/2025

City Of Hoover Inverness WWTP
3308 Afton Circle
Hoover, AL

In your certification you requested one or more landfills be approved to receive your waste. Based on our review of the waste and the landfills requested, the waste is approved for disposal in the following landfills:

Highway 70 MSWLF

59-15

You should provide this approval letter to the landfill(s) listed above and contact the landfill to determine any special handling requirements for this waste prior to delivery to the landfill. According to ADEM regulations, the landfill may not receive this waste unless it has received a waste certification approval. For waste generated on a routine basis (not a one-time occurrence), another written certification for this waste stream should be submitted to ADEM prior to the expiration date listed above or at any time the process producing the waste changes. Each submittal should include a completed Solid Waste Profile Sheet, any supporting documentation including current analytical, and the appropriate fee. Current analytical consists of analysis performed within the past six months.

If at any time before the expiration date of this certification, new analysis of the waste is performed, the new results will supersede any prior analysis from the time the samples are taken. If the new analysis indicates the waste is still non-hazardous, the waste may continue to be disposed of at the landfill listed above until the expiration date of this certification. If the new analysis indicates the waste is hazardous, this certification is revoked. Each time new analysis is performed on the waste, copies of the analytical results should be provided to ADEM and the landfill until this certification expires. The generator should not dispose of the waste prior to the receipt and review of the sampling results. Furthermore, this approval letter does not exempt City Of Hoover Inverness WWTP from complying with all applicable requirements of the ADEM Administrative Code. If you have any questions concerning this approval or the approval process, please contact Ms. Bailee Dykes at 334-279-3061.

Sincerely,

A handwritten signature in black ink that reads "Brent A. Watson".

Brent A. Watson, Chief
Compliance and Enforcement Section
Land Division

BAW/blb

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)

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client: City of Hoover	Report Date: February 16, 2023
Attention: Mr. Jason Welch	Reference # 48392
Address: 2020 Valleydale Road	P.O. # 23003403
Hoover, AL 35244	Project ID: Inverness WWTP

Sample Matrix: solid	Analytical
Date Received: 2/10/23	Analyst: Hageman/Heard
Date Collected: 2/10/23	Date of Analysis: 2/13/23
Sample Collector: J. Welch	Method: EPA Method 8260B

VOLATILE ORGANIC COMPOUNDS						
VOLATILE ORGANIC COMPOUNDS, PPM	FIELD ID					Practical Quantitation Limit PPM
	INV					
	LAB ID 243417					
Benzene	BDL					0.005
Bromobenzene	BDL					0.005
Bromochloromethane	BDL					0.005
Bromodichloromethane	BDL					0.005
Bromoform	BDL					0.005
Bromomethane	BDL					0.005
n-Butylbenzene	BDL					0.005
sec-Butylbenzene	BDL					0.005
tert-Butylbenzene	BDL					0.005
Carbon Tetrachloride	BDL					0.005
Chlorobenzene	BDL					0.005
Chloroethane	BDL					0.005
Chloroform	BDL					0.005
Chloromethane	BDL					0.005
2-Chlorotoluene	BDL					0.005
4-Chlorotoluene	BDL					0.005
Dibromochloromethane	BDL					0.005
1,2-Dibromo-3-Chloropropane	BDL					0.005
1,2-Dibromoethane	BDL					0.005
Dibromomethane	BDL					0.005
1,2-Dichlorobenzene	BDL					0.005
1,3-Dichlorobenzene	BDL					0.005
1,4-Dichlorobenzene	BDL					0.005
Dichlorodifluoromethane	BDL					0.005
1,1-Dichloroethane	BDL					0.005
1,2-Dichloroethane	BDL					0.005

Compound List Continued next page

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	City of Hoover	Report Date:	February 16, 2023
Attention:	Mr. Jason Welch	Reference #	48392
Address:	2020 Valleydale Road	P.O. #	23003403
	Hoover, AL 35244	Project ID:	Inverness WWTP

Sample Matrix:	solid	Analytical	
Date Received:	2/10/23	Analyst:	Hageman/Heard
Date Collected:	2/10/23	Date of Analysis:	2/13/23
Sample Collector:	J. Welch	Method:	EPA Method 8260B

VOLATILE ORGANIC COMPOUNDS						
	FIELD ID					Practical
VOLATILE ORGANIC COMPOUNDS, PPM	INV					Quantitation
	LAB ID					Limit
	243417					PPM
1,1-Dichloroethene	BDL					0.005
cis-1,2-Dichloroethene	BDL					0.005
trans-1,2-Dichloroethene	BDL					0.005
1,2-Dichloropropane	BDL					0.005
1,3-Dichloropropane	BDL					0.005
2,2-Dichloropropane	BDL					0.005
1,1-Dichloropropene	BDL					0.005
cis-1,3-Dichloropropene	BDL					0.005
trans-1,3-Dichloropropene	BDL					0.005
Ethylbenzene	BDL					0.005
Hexachlorobutadiene	BDL					0.005
Isopropylbenzene	BDL					0.005
4-Isopropyltoluene	BDL					0.005
Methylene Chloride	BDL					0.025
Naphthalene	BDL					0.025
n-Propylbenzene	BDL					0.005
Styrene	BDL					0.005
1,1,1,2-Tetrachloroethane	BDL					0.005
1,1,2,2-Tetrachloroethane	BDL					0.005
Tetrachloroethene	BDL					0.005
Toluene	BDL					0.005
1,2,3-Trichlorobenzene	BDL					0.005
1,2,4-Trichlorobenzene	BDL					0.005
1,1,1-Trichloroethane	BDL					0.005
1,1,2-Trichloroethane	BDL					0.005
Trichloroethene	BDL					0.005
Trichlorofluoromethane	BDL					0.005

Compound List Continued next page

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



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Hoover, AL 35244	Project ID: Inverness WWTP

Sample Matrix: solid	Analytical
Date Received: 2/10/23	Analyst: Hageman/Heard
Date Collected: 2/10/23	Date of Analysis: 2/13/23
Sample Collector: J. Welch	Method: EPA Method 8260B

VOLATILE ORGANIC COMPOUNDS						
	FIELD ID					Practical Quantitation Limit PPM
VOLATILE ORGANIC COMPOUNDS, PPM	INV					
	LAB ID					
	243417					
1,2,3-Trichloropropane	BDL					0.005
1,2,4-Trimethylbenzene	BDL					0.005
1,3,5-Trimethylbenzene	BDL					0.005
Vinyl Chloride	BDL					0.005
Xylenes, o,m,p	BDL					0.015
MTBE	BDL					0.005

Detection Limit is Practical Quantitation Limit
BDL = Below Detection Limit
All results expressed as PPM (mg/Kg)

MKT / QAQC

ADEM # 41470
EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	City of Hoover	Report Date:	February 16, 2023
Attention:	Mr. Jason Welch	Reference #	48392
Address:	2020 Valleydale Road	P.O. #	23003403
	Hoover, AL 35244	Project ID:	Inverness WWTP

Sample Matrix:	solid	Extraction Date:	2/14/23
Date Received:	2/10/23	Analyst:	Hageman/Heard
Date Collected:	2/10/23	Date of Analysis:	2/15/23
Sample Collector:	J. Welch	Method:	EPA Method 8270C

SEMIVOLATILE ORGANIC COMPOUNDS						
	FIELD ID					Practical
ACID AND BASE NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS, PPM	INV					Detection
	LAB ID					Limit,
	243417					PPM
Acenaphthene	BDL					0.050
Acenaphthylene	BDL					0.050
Anthracene	BDL					0.050
Benzo(a)anthracene	BDL					0.050
Benzo(b)fluoranthene	BDL					0.050
Benzo(k)fluoranthene	BDL					0.050
Benzo(g,h,i)perylene	BDL					0.050
Benzo(a)pyrene	BDL					0.050
Bis(2-chloroethoxy)methane	BDL					0.050
Bis(2-chloroethyl)ether	BDL					0.050
Bis(2-chloroisopropyl)ether	BDL					0.050
Bis(2-ethylhexyl)phthalate	0.137					0.050
4-bromophenyl phenyl ether	BDL					0.050
Butyl benzyl phthalate	BDL					0.050
4-Choloraniline	BDL					0.050
2-Chloronaphthalene	BDL					0.050
4-Chloro-3-methylphenol	BDL					0.050
2-Chlorophenol	BDL					0.050
4-Chlorophenyl phenyl ether	BDL					0.050
Carbazole	BDL					0.050
Chrysene	BDL					0.050
Dibenzo(a,h)anthracene	BDL					0.050
Dibenzofuran	BDL					0.050
Di-n-butylphthalate	0.263					0.050
1,3-Dichlorobenzene	BDL					0.050
1,4-Dichlorobenzene	BDL					0.050
1,2-Dichlorobenzene	BDL					0.050

Compound List Continued next page

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Date Received:	2/10/23	Analyst:	Hageman/Heard
Date Collected:	2/10/23	Date of Analysis:	2/15/23
Sample Collector:	J. Welch	Method:	EPA Method 8270C

SEMIVOLATILE ORGANIC COMPOUNDS						
	FIELD ID					Practical
ACID AND BASE NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS, PPM	INV					Detection
	LAB ID					Limit,
	243417					PPM
2,4-Dichlorophenol	BDL					0.050
Diethylphthalate	BDL					0.050
2,4-Dimethylphenol	BDL					0.050
Dimethylphthalate	BDL					0.050
2,4-Dinitrophenol	BDL					0.050
2,4-Dinitrotoluene	BDL					0.050
2,6-Dinitrotoluene	BDL					0.050
Di-n-octylphthalate	BDL					0.050
Fluoranthene	BDL					0.050
Fluorene	BDL					0.050
Hexachlorobenzene	BDL					0.050
Hexachlorobutadiene	BDL					0.050
Hexachlorocyclopentadiene	BDL					0.050
Hexachloroethane	BDL					0.050
Indeno(1,2,3-cd)pyrene	BDL					0.050
Isophorone	BDL					0.050
2-Methylnaphthalene	BDL					0.050
2-Methylphenol (o-cresol)	BDL					0.050
4-Methylphenol (p-cresol)	BDL					0.050
Naphthalene	BDL					0.050
2-Nitroaniline	BDL					0.050
3-Nitroaniline	BDL					0.050
4-Nitroaniline	BDL					0.050
Nitrobenzene	BDL					0.050
2-Nitrophenol	BDL					0.050
4-Nitrophenol	BDL					0.050
N-Nitrosodimethylamine	BDL					0.050
N-Nitrosodi-n-propylamine	BDL					0.050

Compound List Continued next page

Sutherland

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Address:	2020 Valleydale Road	P.O. #	23003403
	Hoover, AL 35244	Project ID:	Inverness WWTP

Sample Matrix:	solid	Extraction Date:	2/14/23
Date Received:	2/10/23	Analyst:	Hageman/Heard
Date Collected:	2/10/23	Date of Analysis:	2/15/23
Sample Collector:	J. Welch	Method:	EPA Method 8270C

SEMIVOLATILE ORGANIC COMPOUNDS						
	FIELD ID					Practical Detection Limit, PPM
ACID AND BASE NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS, PPM	INV					
	LAB ID					
	243417					
Pentachlorophenol	BDL					0.050
Phenanthrene	BDL					0.050
Phenol	BDL					0.050
Pyrene	BDL					0.050
1,2,4-Trichlorobenzene	BDL					0.050
2,4,5-Trichlorophenol	BDL					0.050
2,4,6-Trichlorophenol	BDL					0.050

BDL = Below Detection Limit, Practical
All results expressed as PPM (mg/Kg)

MH / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	City of Hoover	Report Date:	February 16, 2023
Attention:	Mr. Jason Welch	Reference #	48392
Address:	2020 Valleydale Road	P.O. #	23003403
	Hoover, AL 35244	Project ID:	Inverness WWTP

Sample Matrix:	solid	Analytical	
Date Received:	2/10/23	Analyst:	Kevin Doriety
Date Collected:	2/10/23	Date of Analysis:	2/14/23
Sample Collector:	J. Welch	Method:	EPA Method 6020B

METALLIC ANALYTES

	FIELD ID						
	INV						
Analyte, mg/Kg as Total	LAB ID						Detection Limit,mg/Kg
Arsenic	BDL						1.0
Barium	BDL						1.0
Cadmium	BDL						1.0
Chromium	BDL						1.0
Lead	BDL						1.0
Mercury	BDL						0.01
Selenium	BDL						1.0
Silver	BDL						1.0

BDL = Below Detection Limit
Detection Limit is Reporting Limit
All results expressed as PPM mg/Kg of total analyte

MH / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	City of Hoover	Report Date:	February 16, 2023
Attention:	Mr. Jason Welch	Reference #	48392
Address:	2020 Valleydale Road	P.O. #	23003403
	Hoover, AL 35244	Project ID:	Inverness WWTP

Sample Matrix:	solid	Sample Collector:	J. Welch		
Date Received:	2/10/23	Method Reference:	SW 846 & EPA Methods		
Date /Time Collected:	2/10/23 @ 1015	Field ID:	INV	Lab ID:	243417

Parameter	Result	Units	Date / Time Assay		Analyst	Method	D.L.
Ignitability (Flashpoint)	< 1.0	mm/sec.	2/13/23	1305	KD	SW 1030	1.0
pH, Slurry	6.94	SU	2/10/23	1452	CRR	EPA 1311	na

BDL = Below Detection Limit
DL = Detection Limit , Method
N/A = Not Available

MTJ /QAQC

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Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES

ok
mjh

Initial*:

MJH

HP

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: J. Welch

Invoice # 48392

Sutherland Environmental Co., Inc.

Notes: _____

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>2/10/23</u>	Invoice # <u>48392</u>
Method of Delivery: <u>hand</u>	Client: <u>City of Hoover</u>

1. Did any containers arrive broken?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	NO NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	NO
* Was it properly filled out?		
	<input checked="" type="checkbox"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	NO
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	NO NA
7. Were all water samples received at the proper pH?	YES	NO <input checked="" type="checkbox"/> NA
8. If VOA vials were present, was there any head space?	YES	NO <input checked="" type="checkbox"/> NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="checkbox"/> NA
12. Were any samples rejected?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed): M. Water