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

DEC 1 4 2020

William Parsons, President
Living Water Utilities, LLC
5800 Feldspar Way, Suite 200
Birmingham, AL 35244

RE: Final Permit
NPDES Permit No. AL0082562
Moundville Westervelt POTW
Hale County, Alabama

Dear Mr. Parsons:

Transmitted herein is a draft of the referenced permit.

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

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

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

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

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

Should you have any questions, please contact the undersigned by email at michael.simmons@adem.alabama.gov or by phone at (334) 274-4220.

Sincerely,

Michael N. Simmons
Municipal Section
Water Division

mns/mfc
Enclosure

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

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

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

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

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

Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	LIVING WATER UTILITIES, LLC 5800 FELDSPAR WAY, SUITE 200 BIRMINGHAM, ALABAMA 35244	
FACILITY LOCATION:	MOUNDVILLE WESTERVELT POTW 2500 GULF STATES PARKWAY MOUNDVILLE, ALABAMA HALE COUNTY	(0.0281 MGD)
PERMIT NUMBER:	AL0082562	
RECEIVING WATERS:	MILLIANS CREEK	

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

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

MUNICIPAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 0011 Discharge Limits - Municipal and Industrial Wastewater

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 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	G	*****
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	9.0 S.U.	*****	E	GRAB	G	*****
Solids, Total Suspended 00530 1 0 0	21.0 lbs/day	31.6 lbs/day	90.0 mg/l	135 mg/l	*****	*****	*****	E	GRAB	G	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	GRAB	G	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	4.7 lbs/day	7.0 lbs day	20.0 mg/l	30.0 mg/l	*****	*****	*****	E	GRAB	G	*****
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	REPORT lbs/day	REPORT lbs day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	GRAB	G	S
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	GRAB	G	S
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	GRAB	G	S
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	INSTAN	G	*****
Chlorine, Total Residual See note (5) 50060 1 0 0	*****	*****	0.68 mg/l	*****	*****	1.0 mg/l	*****	E	GRAB	G	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	298 col/100mL	*****	E	GRAB	G	ECS
E. Coli 51040 1 0 0	*****	*****	548 col/100mL	*****	*****	2507 col/100mL	*****	E	GRAB	G	ECW
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	5.9 lbs/day	8.8 lbs/day	25.0 mg/l	37.5 mg/l	*****	*****	*****	E	GRAB	G	*****
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	GRAB	G	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	65.0%	K	CALCTD	G	*****

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

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

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

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

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

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

2. Outfall 001T Discharge Limits - Chronic Toxicity

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 001T, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

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

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

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

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

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

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

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

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

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

2. Measurement Frequency

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

   a. Seven days per week shall mean daily.

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

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

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

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

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

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

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

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

3. Test Procedures

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

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

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

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

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

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

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

4. Recording of Results

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

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

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

c. The dates and times the analyses were performed;

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

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

f. The results of all required analyses.

5. Records Retention and Production

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

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

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

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

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

7. Monitoring Equipment and Instrumentation

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

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

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

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

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

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

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

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

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

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

(2) **REPORTS OF QUARTERLY TESTING** shall be submitted on a quarterly basis. The first report is due on the 28th day of the month following the 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. by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Certified and Registered Mail shall be addressed to:

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

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

2. Noncompliance Notifications and Reports

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

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

(2) Potentially threatens human health or welfare;

(3) Threatens fish or aquatic life;

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

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

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

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

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

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

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

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

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

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

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

d. Immediate notification

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

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

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

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

2. Termination of Discharge

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

3. Updating Information

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

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

4. Duty to Provide Information

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

E. SCHEDULE OF COMPLIANCE

1. Compliance with discharge limits

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

   COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. Schedule

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

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

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

2. Best Management Practices (BMP)

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

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

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

3. Certified Operator

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

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

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

2. Right of Entry and Inspection

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

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

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

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

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

C. BYPASS AND UPSET

1. Bypass

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

   b. A bypass is not prohibited if:

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

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

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

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

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

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

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

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

2. Upset

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

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

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

(i) An upset occurred;

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

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

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

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

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

1. Duty to Comply

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

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

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

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

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

2. Removed Substances

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

3. Loss or Failure of Treatment Facilities

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

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

4. Compliance With Statutes and Rules

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

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

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

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

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

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

2. Change in Discharge

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

3. Transfer of Permit

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

4. Permit Modification and Revocation

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

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

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

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

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

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

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

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

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

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

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

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

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 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.

5. Termination

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

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

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

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

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

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

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

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

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

6. Suspension

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

7. Stay

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

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

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

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

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

H. PROHIBITIONS

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

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

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

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

2. False Statements

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

3. Permit Enforcement

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

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

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

      (2) An action for damages;

      (3) An action for injunctive relief; or

      (4) An action for penalties.

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

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

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

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

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

4. Relief from Liability

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

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

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

C. PROPERTY AND OTHER RIGHTS

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

D. AVAILABILITY OF REPORTS

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

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

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

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

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

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

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

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

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

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

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

F. COMPLIANCE WITH WATER QUALITY STANDARDS

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

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

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

G. GROUNDWATER

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

H. DEFINITIONS

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

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

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

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

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

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

    a. Reaches a surface water of the State; or

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

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

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

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

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

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

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

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

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

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

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

41. TRC – means Total Residual Chlorine.

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

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

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

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

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

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

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

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

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

I. SEVERABILITY

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

PART IV SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. SLUDGE MANAGEMENT PRACTICES

1. Applicability

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

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

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

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

2. Submitting Information

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

      (1) Type of sludge stabilization/digestion method;

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

      (3) Ultimate sludge disposal practice(s).

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

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

3. Reopener or Modification

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

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

B. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

1. Chronic Toxicity Test

   a. The permittee shall perform short-term chronic toxicity tests on the wastewater at Outfall 0011.

   b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **2 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. Toxicity tests shall be conducted for the duration of this permit in the month of **August**. Should results from the Annual Toxicity test indicate that Outfall 001-1 exhibits chronic toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.4.a. In addition, the Permittee may then also be required to conduct toxicity testing in the months of FEBRUARY, MAY, AUGUST, and NOVEMBER.

3. Reporting Requirements

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

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

4. Additional Testing Requirements

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

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

5. Test Methods

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

6. Effluent Toxicity Testing Reports

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

a. Introduction

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

b. Plant Operations

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

c. Source of Effluent and Dilution Water

(1) Effluent samples

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

(2) Dilution Water

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

d. Test Conditions

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

e. Test Organisms

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

f. Quality Assurance

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

g. Results

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

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

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

C. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

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

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

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

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

D. PLANT CLASSIFICATION

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

E. 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. 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

d. 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

e. Public Notification Methods for SSOs

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

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

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

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

f. 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.

NPDES PERMIT RATIONALE

NPDES Permit No:	**AL0082562**	Date: November 5, 2020
Permit Applicant:	Living Water Utilities, LLC 5800 Feldspar Way, Suite 200 Birmingham, Alabama 35244	
Location:	Moundville Westervelt POTW 2500 Gulf States Parkway Moundville, Alabama 35474	
Draft Permit is:	Initial Issuance: Reissuance due to expiration: Modification of existing permit: Revocation and Reissuance:	 X
Basis for Limitations:	Water Quality Model: Reissuance with no modification: Instream calculation at 7Q10: Toxicity based: Secondary Treatment Levels: Other (described below):	$CBOD_5$, NH_3-N, DO $CBOD_5$, $CBOD_5$ % Removal, DO, NH_3-N, pH, TRC, TSS, TSS % Removal ~2% TRC $CBOD_5$, $CBOD_5$ % Removal, TSS, TSS % Removal E. Coli, pH
Design Flow in Million Gallons per Day:	0.0281 MGD	
Major:	No	
Description of Discharge:	Outfall Number 0011; Effluent discharge to Millians Creek, which is classified as Fish & Wildlife	

Discussion:

This is a permit reissuance due to expiration. Limits for Five Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Ammonia-Nitrogen (NH_3-N), 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 January 17, 2014. The monthly average limits for $CBOD_5$ and NH_3-N are 25.0 mg/L and 20.0 mg/L, respectively. The daily minimum DO limit is 6.0 mg/L.

The pH daily minimum and daily maximum limits of 6.0 and 9.0 S.U, respectively, were developed to be supportive of the water-use classification of the receiving stream. The Total Residual Chlorine (TRC) limits of 0.68 mg/L (monthly average) and 1.0 mg/L (daily maximum) are based on EPA's recommended water quality values and on the current Toxicity Rationale, which considers the available dilution in the receiving stream and should be protective of both acute and chronic Water Quality Criteria. Monitoring

for TRC is only applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR.

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

The Total Suspended Solids (TSS) and TSS % removal limits of 90.0 mg/L monthly average and 65.0%, respectively, are based on the requirements of 40 CFR part 133.105 regarding equivalent to Secondary Treatment. A minimum percent removal limit of 85.0% is imposed for $CBOD_5$ in accordance with 40 CFR 133.102 regarding Secondary Treatment.

This permit requires the Permittee to monitor and report during the summer (April-October) the nutrient-related parameters of Total Kjeldahl Nitrogen (TKN), Nitrate plus Nitrite Nitrogen (N02+N03-N) and Total Phosphorus (TP). Monitoring for these nutrient related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose nutrient limits on this discharge.

Because this facility is a minor municipal discharger treating municipal and industrial wastewater, chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed on this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e., growth and reproduction). Chronic toxicity at the IWC of 2 percent is required once per year during the month of August. Should the results show chronic toxicity, the permittee would have to conduct follow-up testing as described in Part IV.B of the permit.

The Department completed a reasonable potential analysis (RPA) of the discharge based on the application data submitted in Part D of the Permittee's application (Per 40 CFR Part 122 Appendix J – Table 2). The Department also considers background data upstream of the point of discharge in the RPA; however, there is no available background data for this discharge. The RPA indicates whether pollutants in treated effluent have potential to contribute to excursions of Alabama's in-stream water quality standards. Based on the analytical data submitted by the Permittee, there is not a reasonable potential that may exist to cause an in-stream water quality criteria exceedance

The monitoring frequency for DO, pH, TSS, NH_3-N, TRC, E. coli and $CBOD_5$ is once per month. The monitoring frequency for TKN, N02+N03-N and TP is once per month during the April through October summer growing season. TSS % removal and CBOD % removal are to be calculated once per month. Flow is to be measured instantaneously once per month.

Millians Creek is a Tier II stream and is not listed on the most recent 303(d) list. There are no Total Daily Maximum Daily Loads (TMDLs) affecting this discharge.

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

Prepared by: Michael N. Simmons

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Moundville Westervelt POTW**	
NPDES Permit Number:	**AL0082562**	
Receiving Stream:	**Millians Creek**	
Facility Design Flow (Q_w):	**0.0281 MGD**	
Receiving Stream $7Q_{10}$:	**2.630 cfs**	
Receiving Stream $1Q_{10}$:	**1.970 cfs**	
Winter Headwater Flow (WHF):	**4.01 cfs**	
Summer Temperature for CCC:	**28 deg. Celsius**	
Winter Temperature for CCC:	**28 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.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{1.63\%}$$

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.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w}$$

= **1.63%** **Effluent-Dominated, CCC Applies**

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

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

	CMC	CCC
Allowable Summer Instream NH_3-N:	**36.09 mg/l**	**2.48 mg/l**
Allowable Winter Instream NH_3-N:	**36.09 mg/l**	**2.48 mg/l**

$$\text{Summer } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (7Q_{10})]}{Q_w}$$

= **145.8 mg/l NH3-N at 7Q10**

$$\text{Winter } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (WHF + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (WHF)]}{Q_w}$$

= **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.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**20.00 mg/l NH3-N**	**145.80 mg/l NH3-N**
Winter	**N./A.**	**N./A.**

Summer: The DO based limit of 20.00 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

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **1.63%**

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

DISINFECTION REQUIREMENTS

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

See the attached Disinfection Guidance for applicable stream standards.

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

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

MAXIMUM ALLOWABLE CHLORINATION LIMITS

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

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

Maximum allowable TRC in effluent:	0.68 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	1.17 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: Michael Simmons Date: 10/29/2020

Facility Name: **Moundville Westervelt POTW**

NPDES No.: **AL0082562**

6/13/2017

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

ID	Pollutant	Carcinogen "Yes"	Type	Background from upstream source (C_{d2}) Daily Max	Background from upstream source (C_{d2}) Monthly Ave	Background Instream (C_s) Daily Max	Background Instream (C_s) Monthly Ave	Enter Max Daily Discharge as reported by Applicant (C_d) Max	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave	Partition Coefficient (Stream / Lake)
				µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	1.3	1.17	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	3	2	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0.00206	0.0019	0.302
10	Nickel**		Metals	0	0	0	0	11	7	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	9.4	9	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	0	0	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	91900	91000	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	0	0	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	0	0	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichloroethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dintro-2-methylophenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

v 041017ex1

0.0281	Enter Q_d = wastewater discharge flow from facility (MGD)
0.04347713	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
2.63	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
1.97	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
12.65	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
4.01	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
$Q_d + Qd2 + Q_s$	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
50	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

November 18, 2020

Facility Name: Moundville Westervelt POTW

NPDES No.: AL0082562

						Freshwater Acute ($\mu g/l$) Q_s =1Q10						Freshwater Chronic ($\mu g/l$) Q_s = 7Q10				Human Health Consumption Fish only ($\mu g/l$) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
Freshwater F&W classification.				Max Daily Discharge as reported by Applicant ($C_{d max}$)						Avg Daily Discharge as reported by Applicant (C_{davg})									
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max		Water Quality Criteria (C_f)	Draft Permit Limit (C_{dmax})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave		Water Quality Criteria (C_f)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_f)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	2.30E+04	4.59E+03	No
2	Arsenic		YES	0	1.3	592.334	27431.706	5486.341	No	0	1.17	261.324	16069.225	3213.845	No	3.03E-01	8.65E+01	1.77E+01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	4.347	201.321	40.264	No	0	0	0.644	39.577	7.915	No	-	-	-	-
5	Chromium/ Chromium III			0	0	1537.913	71222.552	14244.510	No	0	0	200.051	12301.442	2460.288	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	740.979	148.196	No	0	0	11.000	676.407	135.281	No	-	-	-	-
7	Copper			0	3	18.026	834.823	166.965	No	0	2	12.756	784.975	156.995	No	-	-	-	-
8	Lead			0	0	145.291	6774.901	1354.980	No	0	0	5.701	350.548	70.110	No	-	-	-	-
9	Mercury			0	0.00206	2.400	111.147	22.229	No	0	0.0019	0.012	0.738	0.148	No	4.24E-02	2.61E+00	5.22E-01	No
10	Nickel			0	11	515.824	23888.431	4777.686	No	0	7	57.292	3522.985	704.597	No	9.93E+02	6.11E+04	1.22E+04	No
11	Selenium			0	0	20.000	926.223	185.245	No	0	0	5.000	307.458	61.492	No	2.43E+03	1.49E+05	2.99E+04	No
12	Silver			0	0	0.978	45.220	9.044	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	2.74E-01	1.68E+01	3.36E+00	No
14	Zinc			0	9.4	197.369	9140.381	1828.076	No	0	9	198.863	12235.794	2447.159	No	1.49E+04	9.16E+05	1.83E+05	No
15	Cyanide			0	0	22.000	1018.846	203.769	No	0	0	5.200	319.756	63.951	No	9.33E+03	5.74E+05	1.15E+05	No
16	Total Phenolic Compounds			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	91900	-	-	-	-	0	91000	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	3.34E+02	6.67E+01	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.44E-01	4.21E+01	8.41E+00	No
20	Aldrin		YES	0	0	3.000	138.934	27.787	No	0	0	-	-	-	-	2.94E-05	8.58E-03	1.72E-03	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.55E+01	4.52E+03	9.03E+02	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.88E+01	2.30E+04	4.60E+03	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.57E-01	2.79E+02	5.59E+01	No
24	Chlordane		YES	0	0	2.400	111.147	22.229	No	0	0	0.0043	0.264	0.053	No	4.73E-04	1.38E-01	2.76E-02	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	9.06E+02	5.57E+04	1.11E+04	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.41E+00	2.16E+03	4.33E+02	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.02E+02	2.98E+04	5.96E+03	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.81E-04	5.30E-02	1.06E-02	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E-04	3.74E-02	7.48E-03	No
32	4,4' - DDT		YES	0	0	1.100	50.942	10.188	No	0	0	0.001	0.061	0.012	No	1.28E-04	3.74E-02	7.48E-03	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.00E+01	2.93E+03	5.86E+02	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.14E+01	6.24E+03	1.25E+03	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	3.63E+05	7.26E+04	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.17E+03	1.22E+06	2.43E+05	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	8.49E+00	5.22E+02	1.04E+02	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.23E+01	7.55E+02	1.51E+02	No
40	Dieldrin		YES	0	0	0.240	11.115	2.223	No	0	0	0.056	3.444	0.689	No	3.12E-05	9.12E-03	1.82E-03	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E+03	7.65E+04	1.53E+04	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	5.36E+04	1.07E+04	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.46E+02	1.01E+05	2.02E+04	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.33E+00	6.81E+02	1.36E+02	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	5.60E+02	1.12E+02	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	8.72E+03	5.36E+05	1.07E+05	No
48	Toxaphene		YES	0	0	0.730	33.807	6.761	No	0	0	0.0002	0.012	0.002	No	1.62E-04	4.73E-02	9.46E-03	No
49	Tributyltin (TBT)		YES	0	0	0.460	21.303	4.261	No	0	0	0.072	4.427	0.885	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.10E+00	2.66E+03	5.31E+02	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.75E+01	5.10E+03	1.02E+03	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.42E+00	4.16E+02	8.32E+01	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+01	5.35E+03	1.07E+03	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	1.72E+02	1.06E+04	2.12E+03	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	4.98E+02	3.06E+04	6.12E+03	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	1.91E+05	3.83E+04	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.65E+02	4.83E+04	9.66E+03	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.67E-08	7.79E-06	1.56E-06	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	403.987	80.797	No	0	0	6.693	411.537	82.307	No	1.77E+00	5.16E+02	1.03E+02	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.00E+05	3.07E+07	6.15E+06	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E+00	4.13E+02	8.26E+01	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	5.79E+02	3.56E+04	7.11E+03	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	1.43E+06	2.87E+05	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	7.13E-03	1.43E-03	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E+00	6.22E-01	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E+00	6.22E-01	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	6.55E-01	1.31E-01	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	6.55E-01	1.31E-01	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.07E-01	8.98E+01	1.80E+01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.78E+04	2.32E+06	4.65E+05	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E+00	3.74E+02	7.49E+01	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.13E+03	6.93E+04	1.39E+04	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	9.24E+02	5.68E+04	1.14E+04	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E+00	6.22E-01	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	1.61E+05	3.22E+04	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E+00	6.22E-01	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.55E+02	4.65E+04	9.29E+03	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	3.46E+04	6.92E+03	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	6.92E+03	1.38E+03	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.66E-02	4.85E+00	9.70E-01	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E+04	1.57E+06	3.14E+05	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+05	3.99E+07	7.97E+06	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.98E+00	5.78E+02	1.16E+02	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	7.20E+00	1.44E+00	No
97	Endosulfan (alpha)		YES	0	0	0.22	10.188	2.038	No	0	0	0.056	3.444	0.689	No	5.19E+01	1.51E+04	3.03E+03	No
98	Endosulfan (beta)		YES	0	0	0.22	10.188	2.038	No	0	0	0.056	3.444	0.689	No	5.19E+01	1.51E+04	3.03E+03	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.19E+01	1.51E+04	3.03E+03	No
100	Endrin		YES	0	0	0.086	3.983	0.797	No	0	0	0.036	2.214	0.443	No	3.63E-02	1.03E+01	2.06E+00	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.76E-01	5.15E+01	1.03E+01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	8.12E+01	4.99E+03	9.98E+02	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	1.91E+05	3.83E+04	No
104	Heptochlor		YES	0	0	0.52	24.082	4.816	No	0	0	0.0038	0.234	0.047	No	4.63E-05	1.35E-02	2.70E-03	No
105	Heptachlor Epoxide		YES	0	0	0.52	24.082	4.816	No	0	0	0.0038	0.234	0.047	No	2.29E-05	6.68E-03	1.34E-03	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.68E-04	4.90E-02	9.80E-03	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.08E+01	3.14E+03	6.28E+02	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.85E-03	8.32E-01	1.66E-01	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.97E-03	2.91E+00	5.82E-01	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	43.996	8.799	No	0	0	-	-	-	-	1.08E+00	3.14E+02	6.29E+01	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+02	3.97E+04	7.93E+03	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	1.18E+02	2.36E+01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E+00	6.22E-01	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.61E+02	3.45E+04	6.90E+03	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.04E+02	2.48E+04	4.96E+03	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.95E-01	8.61E+01	1.72E+01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.76E+00	5.14E+02	1.03E+02	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.50E+00	1.02E+03	2.04E+02	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.861	0.172	No	3.74E-05	1.09E-02	2.18E-03	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+03	1.43E+05	2.87E+04	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.09E+01	2.52E+03	5.03E+02	No

Waste Load Allocation Spreadsheet

Comments included: [x] Yes [ ] No

General Information

Information Verified By: JJM

Receiving Stream Name	Millians Creek
Year File Was Created	2014
Previous File Name	
OR: Local Name (If applicable)	
Facility Name	Moundville Westervelt POTW
Previous Discharger Name	
Or-AKA (includes previous file name)	
11 Digit HUC Code	03160113070
12 Digit HUC Code	031601130301
River Basin	Black Warrior
County	Hale
Use Classification	F&W
Date of WLA Response	1/17/2014
Discharge Latitude	32.9567
Lat/Long Method	Arcview
Discharge Longitude	-87.6514
Site Visit Completed?	[x] Yes [ ] No
Approved TMDL?	[ ] Yes [x] No
Date of Site Visit	1/9/2014
Approval Date of TMDL	
Waterbody Impaired?	[ ] Yes [x] No
Antidegradation	[ ] Yes [x] No
Waterbody Tier Level	Tier II
Use Support Category	2B
Other Point Sources?	[ ] Yes [x] No

Print Record | Close Form

Permit Information

Permit Number	AL0082562
Permit Status	Active

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

Sources Included in Model

Waste Load Allocation Information

Modeled Reach Length	2.03 Miles	Date of Allocation	1/17/2014
Name of Model Used	SWQM	Allocation Type	Annual
Model Completed by	Keith Daly - CFM Group	Type of Model Used	Desk-top
Allocation Developed by	Consultant		

Wasteload Allocation Summary

Annual Effluent Limits

Qw	0.0281	MGD
CBOD5	25	mg/L
NH3-N	20	mg/L
TKN		mg/L
D.O.	6	mg/L

Conventional Parameters

Qw		MGD	Qw		MGD
Season			Season		
From			From		
Through			Through		
CBOD5		mg/L	CBOD5		mg/L
NH3-N		mg/L	NH3-N		mg/L
TKN		mg/L	TKN		mg/L
D.O.		mg/L	D.O.		mg/L

Other Parameters

Qw		MGD	Qw		MGD
Season			Season		
From			From		
Through			Through		
TP		mg/L	TP		mg/L
TN		mg/L	TN		mg/L
TSS		mg/L	TSS		mg/L
		mg/L			mg/L

"Monitor Only" Parameters for Effluent:

Parameter	Frequency	Parameter	Frequency
TP	Monthly(Apr-Oct)		
NO2+NO3-N	Monthly(Apr-Oct)		
TKN	Monthly(Apr-Oct)		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu	2	mg/l		mg/l
NH3-N	0.11	mg/l		mg/l
Temperature	28	°C		°C
pH	7	su		su

Hydrology at Discharge Location

Drainage Area Qualifier				Method Used to Calculate
Exact	Drainage Area	10.12	sq mi	
	Stream 7Q10	2.63	cfs	ADEM Estimate w/USGS Gage Data
	Stream 1Q10	1.97	cfs	ADEM Estimate w/USGS Gage Data
	Stream 7Q2	4.01	cfs	ADEM Estimate w/USGS Gage Data
	Annual Average	12.65	cfs	USACE Mobile District

Comments and/or Notations

This WLA was a review of the Westervelt Sawmill SWQM prepared by Keith Daly of CFM Group. After completing this WLA, the permit number for this facility changed from AL0082325 to AL0082562. Furthermore, the facility name has changed from Westervelt Lumber - Moundville Sawmill to Moundville Westervelt POTW.

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

Last Revision: 07/15/09

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY
GENERAL INFORMATION
Consolidated Permits Program
(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: S F AL0082562 T/A C D

LABEL ITEMS
- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

RECEIVED SEP 30 2019 IND / MUN BRANCH

GENERAL INSTRUCTIONS

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

II. POLLUTANT CHARACTERISTICS

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

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

III. NAME OF FACILITY

1 SKIP: Moundville Westervelt POTW

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 Parsons, William Grady, Managing Member	(205) 985-2119

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 5800 Feldspar Way

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 Hoover	AL	35244

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 2500 Gulf States Parkway

B. COUNTY NAME: Hale

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 Moundville	AL	35474	N/A

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

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

A. FIRST	B. SECOND
N/A *(specify)*	*(specify)*
C. THIRD	**D. FOURTH**
(specify)	*(specify)*

VIII. OPERATOR INFORMATION

A. NAME: Living Water Services, LLC

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

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

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

P *(specify)*

D. PHONE *(area code & no.)*: A (205) 985-2119

E. STREET OR P.O. BOX: 5800 Feldspar Way

F. CITY OR TOWN: Birmingham

G. STATE: AL

H. ZIP CODE: 35244

IX. INDIAN LAND

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

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*: N AL0082562	**D. PSD** *(Air Emissions from Proposed Sources)*: P N/A
B. UIC *(Underground Injection of Fluids)*: U N/A	**E. OTHER** *(specify)*: *(specify)*
C. RCRA *(Hazardous Wastes)*: R N/A	**E. OTHER** *(specify)*: *(specify)*

XI. MAP

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

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

Wastewater Treatment and Disposal from domestic and wood production sources.

XIII. CERTIFICATION *(see instructions)*

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

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
William Grady Parsons, Managing Member	William G. Parsons	9/20/19

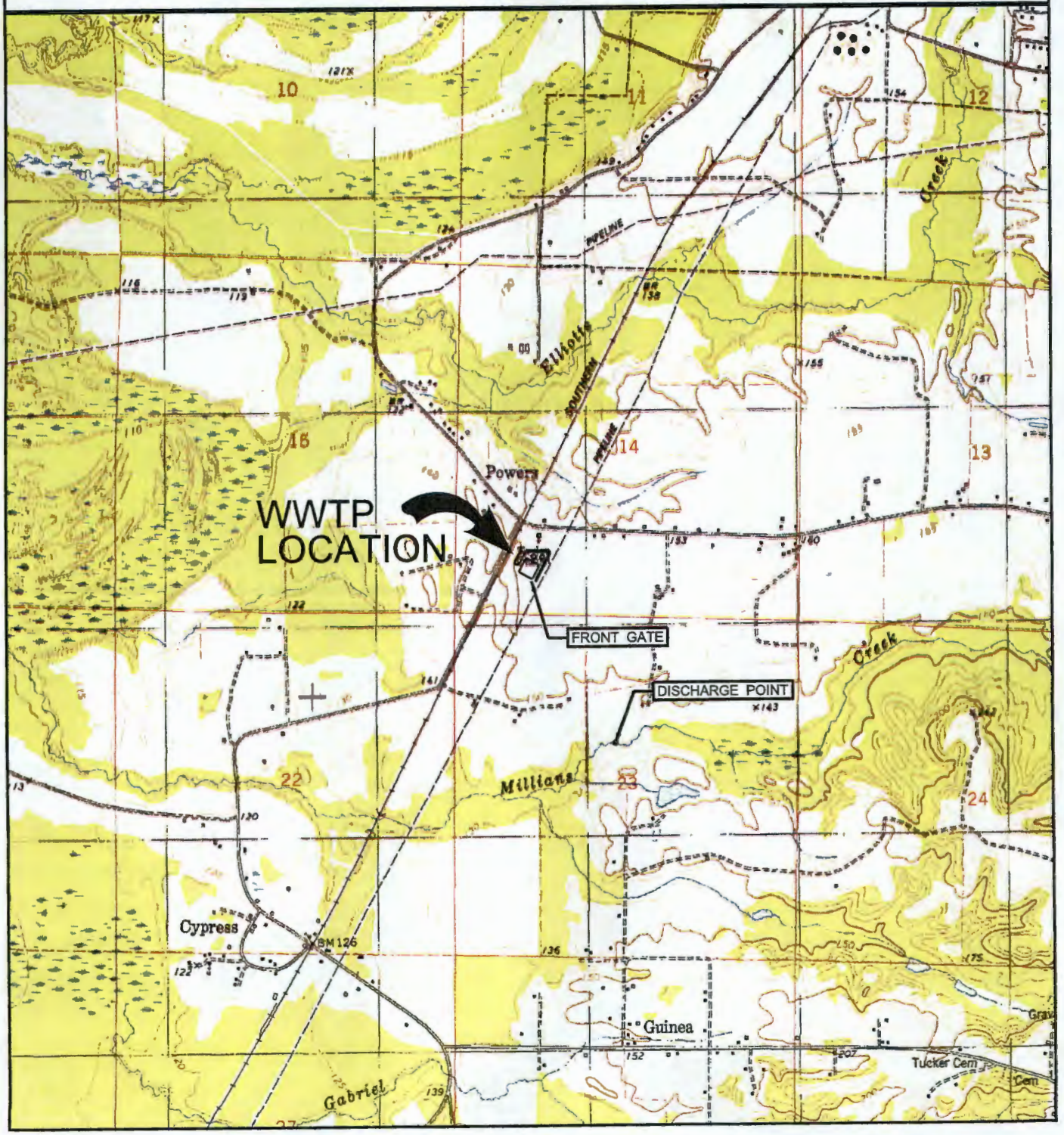
COMMENTS FOR OFFICIAL USE ONLY

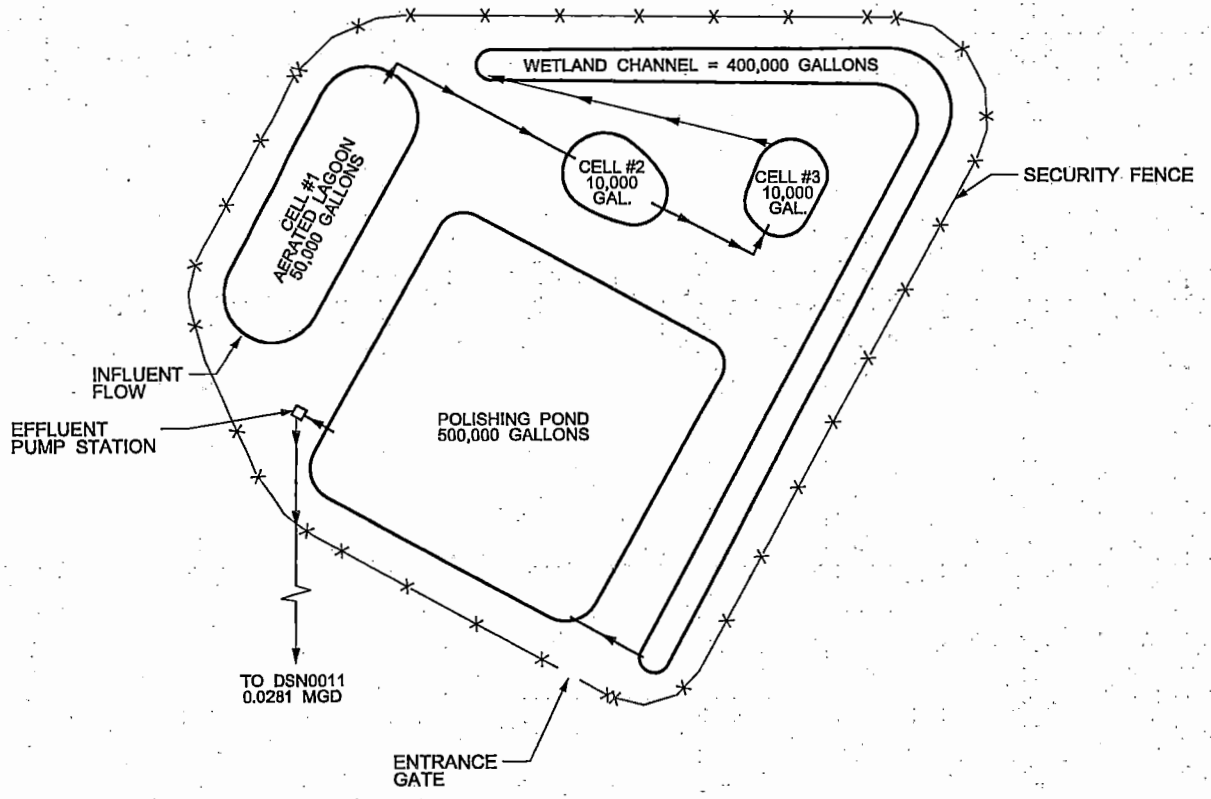
C

NAME: WESTERVELT WWTP - USGS MAP

LOCATION: MOUNDVILLE, HALE COUNTY, ALABAMA

SCALE: 2000





WESTERVELT WWTP SCHEMATIC FLOW DIAGRAM PERMITTED FLOW = 0.0281 MGD	PAGE 1 OF 1 SCH-1
NOT TO SCALE	09/18/19

FACILITY NAME AND PERMIT NUMBER:
AL0082562 Moundville Westervelt POTW

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

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

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

A.1. Facility Information.

Facility name: Moundville Westervelt POTW

Mailing Address: 5800 Feldspar Way, Suite 200
Birmingham, Alabama 35244

Contact person: William G. Parsons

Title: Managing Partner

Telephone number: (205) 985-2119

Facility Address (not P.O. Box): 2500 Gulf States Parkway
Moundville, Alabama 35474

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

Applicant name: same as above

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

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

_____ owner ✓ operator

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

_____ facility ✓ applicant

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

NPDES	AL0082562	PSD	
UIC		Other	
RCRA		Other	

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

Name	Population Served	Type of Collection System	Ownership
Moundville Westervelt	500	Gravity, Pump Stations	Westervelt Lumber
POTW			Moundville Sawmill

Total population served 500

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A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

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

_____ Yes ✓ No

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

a. Design flow rate 0.0281 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	0.0280	0.0390	0.0570	mgd
c. Maximum daily flow rate	0.0431	0.0220	0.0855	mgd

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

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

A.8. Discharges and Other Disposal Methods.

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

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

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

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

If yes, provide the following for each surface impoundment:

Location: _____

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

Is discharge _____ continuous or _____ intermittent?

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

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

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

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

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

N/A

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

Transporter name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

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

Name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

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

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

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

If yes, provide the following for each disposal method:

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

_____

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

WASTEWATER DISCHARGES:

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

A.9. Description of Outfall.

a. Outfall number DSN0011

b. Location
Moundville (City or town, if applicable) 35474 (Zip Code)
Hale (County) Alabama (State)
N. 32.956600 (Latitude) W 87.651353 (Longitude)

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

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

e. Average daily flow rate 0.008 mgd

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

If yes, provide the following information:

Number of times per year discharge occurs: _____

Average duration of each discharge: _____

Average flow per discharge: _____ mgd

Months in which discharge occurs: _____

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

A.10. Description of Receiving Waters.

a. Name of receiving water Millians Crek

b. Name of watershed (if known) Lower Black Warrior

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

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

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 03160113

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

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

A.11. Description of Treatment.

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

✓ Primary ✓ Secondary

____ Advanced ____ Other. Describe: ____

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

Design BOD_5 removal or Design $CBOD_5$ removal	85.00 %
Design SS removal	85.00 %
Design P removal	%
Design N removal	%
Other	%

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

None at this time

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

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

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

Outfall number: DSN0011

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.80	s.u.			
pH (Maximum)	9.00	s.u.			
Flow Rate	0.015	MGD	0.008	MGD	365.00
Temperature (Winter)	15.80	C	12.70	C	12.00
Temperature (Summer)	22.30	C	19.70	C	12.00

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

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5							
DEMAND (Report one)	CBOD-5	14.90	mg/l	8.90	mg/l	6.00	5210B	25.0/37.5 mg/l
FECAL COLIFORM		100.00	Colonies	40.00	Colinies	6.00	9222D	126/487 Colinies
TOTAL SUSPENDED SOLIDS (TSS)		42.00	mg/l	29.42	mg/l	6.00	2540D	90/135 mg/l

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

BASIC APPLICATION INFORMATION

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

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

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

100.00 gpd

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

Collection System serves production facility; minimal opportunity for inflow/infiltration.

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

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

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

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

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

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

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

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

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

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

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

Name: Livung Water Services, LLC

Mailing Address: 5800 Feldspar Way, Suite 200
Birmingham, Alabama 35244

Telephone Number: (205) 985-2113

Responsibilities of Contractor: See attached

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

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

None at this time

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

____Yes ____No

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

_____

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

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

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

Describe briefly: _____

_____

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

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

Outfall Number: N/A

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

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

FACILITY NAME AND PERMIT NUMBER:
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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

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

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

✓ Basic Application Information packet

Supplemental Application Information packet:

✓ Part D (Expanded Effluent Testing Data)

✓ Part E (Toxicity Testing: Biomonitoring Data)

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

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

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

Name and official title: William G. Parsons, Managing Member

Signature: William G. Parsons

Telephone number: (205) 985-2119

Date signed: 9/26/11

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

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

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

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

Outfall number: 001-1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	<0.001	mg/L	<0.001	lb/day	<0.0008333	mg/L	<0.0004	lb/day	3	E200.8	0.0005 mg/L
ARSENIC	0.0013	mg/L	0.001	lb/day	0.00117	mg/L	0.001	lb/day	3	E200.8	0.0005 mg/L
BERYLLIUM	<0.0005	mg/L	<0.000	lb/day	<0.0005	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
CADMIUM	<0.001	mg/L	<0.001	lb/day	<0.0008333	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
CHROMIUM	<0.001	mg/L	<0.001	lb/day	<0.001	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
COPPER	0.003	mg/L	0.002	lb/day	0.002	mg/L	0.001	lb/day	3	E200.8	0.0005 mg/L
LEAD	<0.001	mg/L	<0.001	lb/day	<0.0008333	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
MERCURY	2.06	ng/L	0.00003	oz/day	1.9	ng/L	0.00001	oz/day	3	E1631	0.50 ng/L
NICKEL	0.011	mg/L	0.006	lb/day	0.007	mg/L	0.003	lb/day	3	E200.8	0.0005 mg/L
SELENIUM	<0.001	mg/L	<0.001	lb/day	<0.0008333	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
SILVER	<0.0005	mg/L	<0.000	lb/day	<0.0005	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
THALLIUM	<0.0005	mg/L	<0.000	lb/day	<0.0005	mg/L	<0.000	lb/day	3	E200.8	0.0005 mg/L
ZINC	0.0094	mg/L	0.007	lb/day	0.009	mg/L	0.005	lb/day	3	E200.8	0.0005 mg/L
CYANIDE	<0.02	mg/L	<0.010	lb/day	<0.0166667	mg/L	<0.008	lb/day	3	M4500-CN CE	0.010 mg/L
TOTAL PHENOLIC COMPOUNDS	<0.10	mg/L	<0.082	lb/day	<0.05	mg/L	<0.033	lb/day	3	M5330 BD 2005	0.10 mg/L
HARDNESS (AS $CaCO_3$)	91.9	mg/L	74	lb/day	91	mg/L	41	lb/day	3	E200.7	1.00 mg/L
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

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Outfall number: 001-1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	<0.100	mg/L	<0.082	lb/day	<0.047	mg/L	<0.033	lb/day	3	E624	0.100 mg/L
ACRYLONITRILE	<0.100	mg/L	<0.082	lb/day	<0.047	mg/L	<0.033	lb/day	3	E624	0.100 mg/L
BENZENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
BROMOFORM	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
CARBON TETRACHLORIDE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
CLOROBENZENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
CHLORODIBROMO-METHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
CHLOROETHANE	<0.010	mg/L	<0.008	lb/day	<0.007	mg/L	<0.004	lb/day	3	E624	0.010 mg/L
2-CHLORO-ETHYLVINYL ETHER	<0.020	mg/L	<0.010	lb/day	<0.017	mg/L	<0.008	lb/day	3	E624	0.010 mg/L
CHLOROFORM	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
DICHLOROBROMO-METHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,1-DICHLOROETHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,2-DICHLOROETHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
TRANS-1,2-DICHLORO-ETHYLENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,1-DICHLOROETHYLENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,2-DICHLOROPROPANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,3-DICHLORO-PROPYLENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
ETHYLBENZENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
METHYL BROMIDE	<0.010	mg/L	<0.008	lb/day	<0.007	mg/L	<0.004	lb/day	3	E624	0.010 mg/L
METHYL CHLORIDE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
METHYLENE CHLORIDE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,1,2,2-TETRACHLORO-ETHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
TETRACHLORO-ETHYLENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
TOLUENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L

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Outfall number: 001-1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,1,2-TRICHLOROETHANE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
TRICHLORETHYLENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
VINYL CHLORIDE	<0.005	mg/L	<0.003	lb/day	<0.004	mg/L	<0.002	lb/day	3	E624	0.002 mg/L
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2-CHLOROPHENOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2,4-DICHLOROPHENOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2,4-DIMETHYLPHENOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
4,6-DINITRO-O-CRESOL	<0.050	mg/L	<0.041	lb/day	<0.030	mg/L	<0.019	lb/day	3	E625	0.050 mg/L
2,4-DINITROPHENOL	<0.400	mg/L	<0.209	lb/day	<0.283	mg/L	<0.122	lb/day	3	E625	0.050 mg/L
2-NITROPHENOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
4-NITROPHENOL	<0.050	mg/L	<0.041	lb/day	<0.043	mg/L	<0.024	lb/day	3	E625	0.050 mg/L
PENTACHLOROPHENOL	<0.040	mg/L	<0.021	lb/day	<0.035	mg/L	<0.018	lb/day	3	E625	0.025 mg/L
PHENOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2,4,6-TRICHLOROPHENOL	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
ACENAPHTHYLENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
ANTHRACENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BENZIDINE	<0.050	mg/L	<0.041	lb/day	<0.037	mg/L	<0.022	lb/day	3	E625	0.050 mg/L
BENZO(A)ANTHRACENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BENZO(A)PYRENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L

FACILITY NAME AND PERMIT NUMBER:
AL0082562 Moundville Westervelt POTW

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

Outfall number: 001-1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BENZO(GHI)PERYLENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BENZO(K)FLUORANTHENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BIS (2-CHLOROETHOXY) METHANE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BIS (2-CHLOROETHYL)-ETHER	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BIS (2-CHLOROISO-PROPYL) ETHER	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BIS (2-ETHYLHEXYL) PHTHALATE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
4-BROMOPHENYL PHENYL ETHER	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
BUTYL BENZYL PHTHALATE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2-CHLORONAPHTHALENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
4-CHLORPHENYL PHENYL ETHER	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
CHRYSENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
DI-N-BUTYL PHTHALATE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
DI-N-OCTYL PHTHALATE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
DIBENZO(A,H) ANTHRACENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
1,2-DICHLOROBENZENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,3-DICHLOROBENZENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
1,4-DICHLOROBENZENE	<0.005	mg/L	<0.004	lb/day	<0.005	mg/L	<0.003	lb/day	3	E624	0.005 mg/L
3,3-DICHLOROBENZIDINE	<0.020	mg/L	<0.016	lb/day	<0.013	mg/L	<0.008	lb/day	3	E625	0.020 mg/L
DIETHYL PHTHALATE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
DIMETHYL PHTHALATE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2,4-DINITROTOLUENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
2,6-DINITROTOLUENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
1,2-DIPHENYLHYDRAZINE	<0.050	mg/L	<0.041	lb/day	<0.023	mg/L	<0.016	lb/day	3	E625	0.050 mg/L

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

FACILITY NAME AND PERMIT NUMBER:
AL0082562 Moundville Westervelt POTW

Outfall number: 001-1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
FLUORENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
HEXACHLOROBENZENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
HEXACHLOROBUTADIENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
HEXACHLOROCYCLO-PENTADIENE	<0.040	mg/L	<0.021	lb/day	<0.030	mg/L	<0.014	lb/day	3	E625	0.010 mg/L
HEXACHLOROETHANE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
INDENO(1,2,3-CD)PYRENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
ISOPHORONE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
NAPHTHALENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/L
NITROBENZENE	<0.010	mg/L	<0.008	lb/day	<0.010	mg/L	<0.005	lb/day	3	E625	0.010 mg/l
N-NITROSODI-N-PROPYLAMINE	<0,010	mg/l	<0,008	lb/day	<0.010	mg/l	<0.005	lb/day	3	E625	0.010 mg/l
N-NITROSODI- METHYLAMINE	<0,010	mg/l	<0,008	lb/day	<0.010	mg/l	<0.005	lb/day	3	E625	0.010 mg/l
N-NITROSODI-PHENYLAMINE	<0,010	mg/l	<0,008	lb/day	<0.010	mg/l	<0.005	lb/day	3	E625	0.010 mg/l
PHENANTHRENE	<0,010	mg/l	<0,008	lb/day	<0.010	mg/l	<0.005	lb/day	3	E625	0.010 mg/l
PYRENE	<0,010	mg/l	<0,008	lb/day	<0.010	mg/l	<0.005	lb/day	3	E625	0.010 mg/l
1,2,4-TRICHLOROBENZENE	<0,010	mg/l	<0,008	lb/day	,0.010	mg/l	<0.005	lb/day	3	E625	0.010 mg/L

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

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

FACILITY NAME AND PERMIT NUMBER:
AL0082562 Moundville Westervelt POTW

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

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

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

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

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

E.1. Required Tests.

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

✓ chronic ____ acute

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

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

a. Test information.

Test species & test method number	Ceriodaphia dubia	Ceriodaphia dubia	Ceriodaphia dubia
Age at initiation of test	<24 hrs.	<24 hrs	,24 hrs.
Outfall number	DSN001	DSN001	DSN001
Dates sample collected	08/16/2016	03/20/2018	08/15/2019
Date test started	08/16/2016	03/20/2018	08/15/2019
Duration	5 days	5 days	5 days

b. Give toxicity test methods followed.

Manual title			
Edition number and year of publication			
Page number(s)			

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

24-Hour composite	24 hour composite	24 hour composite	
Grab			

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

Before disinfection	Before Disinfection	Before Disinfection	
After disinfection			
After dechlorination			

FACILITY NAME AND PERMIT NUMBER:
AL0082562 Moundville Westervelt POTW

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	Test number: 1.00	Test number: 2.00	Test number: 3.00
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Effluent Discharge Pump Sta.	Effluent Discharge Pump Sta.	Effluent Discharge Pump Sta.
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	Chronic Toxicity	Chronic Toxicity	Chronic Toxicity
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal			
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	Laboratory Water	Laboratory Water	Laboratory Water
Receiving water			
i. Type of dilution water. It salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	Fresh Water	Fresh Water	Fresh Water
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
	2% Effluent Water	2% Effluent Water	2% Effluent Water
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	7.80	8.3	8.1
Salinity			
Temperature	24.3-26.0	25.2-27.6	24.0-27.4
Ammonia	0.034	0.166	0.098
Dissolved oxygen	7.6-8.3	7.8-8.5	7.3-7.9
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER:
AL0082562 Moundville Westervelt POTW

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Chronic:			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			
m. Quality Control/Quality Assurance.			
Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)	Passed	Passed	Passed

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes ✓ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: 08/01/2019 (MM/DD/YYYY)

Summary of results: (see instructions)

Chronic toxicity conducted annually starting in CY 2016, 2017, 2018 & 2019.Toxicity analyses for CY 2017 cited for lab claerical error; duplicate analyses in Feb 2018 passed.

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

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

___Yes ✓ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 1.00

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Westervelt Lumber-Moundville Sawmill

Mailing Address: 2500 Gulf States Parkway
Moundville, Alabama 35474

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Wastewater from Kiln condensate associated with the processing of harvested timber into dimension lumber

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Process lubricants wash water

Raw material(s): _____

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

8,000.00 gpd (___continuous or ✓ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

300.00 gpd (___continuous or ✓ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ___Yes ✓ No

b. Categorical pretreatment standards ___Yes ✓ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____Yes ✓ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ____Yes ✓ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____Truck _____Rail _____Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F.13 through F.15.) ✓ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ✓ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ✓ Intermittent If intermittent, describe discharge schedule.

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

LWS
LIVING WATER SERVICES

September 20, 2019

Living Water Services, LLC-Operations Scope of Work

Moundville Westervelt POTW-NPDES Permit No. AL0082562

1. Serve as "Certified Operator-of-Record" on behalf of the permittee with the Alabama Department of Environmental Management (ADEM).
2. Designated by permittee to prepare, submit and certify monthly Discharge Monitoring Reports and Sanitary Sewer Overflow Events to ADEM.
3. Interact on the permittee's behalf with regulatory personnel from ADEM and local health departments.
4. Provide operations services to the subject treatment facility in order to maintain optimal performance of the treatment system.
5. Conduct sampling, analyses and reporting for the treatment facility as determined by the system's NPDES Permit.
6. Conduct all analyses as determined by the NPDES Permit and according to analytical methodology as described in 40 CFR (Code of Federal Regulations).
7. Perform on sight analyses with instrumentation approved for reporting purposes.
8. Identify process or equipment issues with the treatment facility and offer corrective actions to the permittee for consideration; be available to respond to emergency conditions 24 hours a day/7 days a week.
9. Interact on the permittee's behalf with other vendors/contractors designated to support the overall compliant performance of the treatment system.

5800 FELDSPAR WAY, SUITE 200
BIRMINGHAM, ALABAMA 35244

PHONE 205.985.2119
FAX 205.733.9696

LWS
LIVING WATER SERVICES

September 30, 2019

RE: Living Water Utilities, LLC
Moundville Westervelt POTW-AL0082562
Permit Renewal Application

Delivered ADEM Montgomery Office September 30, 2019

5800 FELDSPAR WAY, SUITE 200
BIRMINGHAM, ALABAMA 35244

PHONE 205.985.2113
FAX 205.733.9697

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

RECEIVED
SEP 30 2019
IND / MUN BRANCH

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: Moundville Westerelt POTW

   a. Operator Name: Living Water Services, LLC

   b. Is the operator identified in A.1.a, the owner of the facility? ☐ Yes ☒ No
   If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.
   5800 Feldspar Way, Suite 200, Birmingham, Alabama 35244
   (see attached scope of responsibility)

   c. Name of Permittee* if different than Operator: Living Water Utilities, LLC
   **Permittee will be responsible for compliance with the conditions of the permit*

2. NPDES Permit Number: AL 0082562 (Not applicable if initial permit application)

3. Facility Physical Location: (**Attach a map with location marked; street, route no. or other specific identifier**)
   Street: 2500 Gulf States Parkway
   City: Moundville County: Hale State: Alabama Zip: 35474
   Facility Location (Front Gate): Latitude: N 32.963308 Longitude: W 87.655459

4. Facility Mailing Address: Living Water Utilities, LLC, 5800 Feldspar Way, Suite 200
   City: Birmingham County: Jefferson State: Alabama Zip: 35244

5. Responsible Official (as described on last page of this application):
   Name and Title: William G. Parsons, Managing Member
   Address: 5800 Feldspar Way, Suite 200
   City: Birmingham State: Alabama Zip: 35244
   Phone Number: (205) 985-2119 Email Address: grady@lwutilities.com

6. Designated Facility/DMR Contact:

Name and Title: Grady Parsons, Living Water Services, President

Phone Number: (205) 790-4026 Email Address: grady@lwutilities.com

7. Designated Emergency Contact:

Name and Title: Tyler McKeller, Living Water Services, LLC, General Manager

Phone Number: (205) 983-4774 Email Address: tyler@lwutilities.com

8. Please complete this section if the Applicant's business entity is a Proprietorship or Limited Liability Company (LLC) with a responsible official not listed in A.5.

Name and Title: N/A

Address:

City: State: Zip:

Phone Number: Email Address:

9. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State Environmental Permits presently held by the Applicant within the State of Alabama:

Permit Type	Permit Number	Held By
NPDES	AL0082562	Living Water Utilities, LLC

10. Identify all Administrative Complaints, Notices of Violation, Directives, or Administrative Orders, Consent Decrees, or Litigation concerning water pollution or other permit violations, if any against the Applicant within the State of Alabama in the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action
N/A			

SECTION B – WASTEWATER DISCHARGE INFORMATION

1. List the following historical monthly flow rates recorded for the past five years for each outfall:

Outfall No.	Highest Flow in Last 12 Months (MGD)	Highest Daily Flow (MGD)	Average Flow (MGD)
DSN0011	0.067	0.067	0.051

2. Attach a process flow schematic of the treatment process, including the size of each unit operation and sample collection locations.

3. Do you share an outfall with another facility? ☐ Yes ☒ No (If no, continue to B.4)
For each shared outfall, provide the following:

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

4. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	☒ Yes	☐ No	☐ N/A
	Sampling Equipment	☒ Yes	☐ No	☐ N/A
Planned:	Flow Metering	☐ Yes	☐ No	☐ N/A
	Sampling Equipment	☐ Yes	☐ No	☐ N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

5. Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics (Note: Permit Modification may be required)? ☐ Yes ☒ No

Briefly describe these changes and any potential or anticipated effects on the wastewater quality and quantity: (Attach additional sheets if needed.)

SECTION C – WASTE STORAGE AND DISPOSAL INFORMATION

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES- permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this application:

Description of Waste	Description of Storage Location
Sludge in Aerated Treatment Lagoon	Sludge Stored in Treatment Lagoon

Describe the location of any sites used for the ultimate disposal of solid or liquid waste materials or residuals (e.g. sludges) generated by any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*

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

SECTION D – INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

a. List the existing and proposed industrial source wastewater contributions to the municipal wastewater treatment system (Attach other sheets if necessary)

Company Name	Description of Industrial Wastewater	Existing or Proposed	Flow (MGD)	Subject to SID Permit?
Westervelt Lumber-Moundville Sawmill	Sanitary wastewater and kiln condensate associated with	Existing	0.060	■ Yes ☐ No
	the processing of harvested timber into dimension lumber			☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No

b. Are industrial wastewater contributions regulated via a locally approved sewer use ordinance? ☐ Yes ■ No
If yes, please attach a copy of the ordinance.

SECTION E – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? ☐ Yes ■ No
If yes, complete items E.1 – E.12 below:

		Yes	No
1.	Does the project require new construction? N/A	☐	☐
2.	Will the project be a source of new air emissions?	☐	☐
3.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	If Yes, has the Corps of Engineers (COE) permit been received?	☐	☐
	COE Project No. _____		
4.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
5.	Are oyster reefs located near the project site?	☐	☐
	If Yes, include a map showing project and discharge location with respect to oyster reefs		
6.	Does the project involve the site developement, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)?	☐	☐
7.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
8.	Does the project involve construction on beaches or dune areas?	☐	☐
9.	Will the project interfere with public access to coastal waters?	☐	☐
10.	Does the project lie within the 100-year floodplain?	☐	☐
11.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
12.	Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	☐	☐
	If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

SECTION F – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR §131.12 and the ADEM Admin. Code r. 335-6-10-.04 for anti-degradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? ☐ Yes ☒ No
   If yes, complete F.2 below. If no, go to Section G.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in F.1? ☐ Yes ☒ No

   If yes, do not complete this section.

   If no and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete F.2.A – F.2.F below, ADEM Form 311-Alternatives Analysis, and either ADEM Form 312 or ADEM Form 313- Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector Projects, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, must be provided *for* **each** treatment discharge alternative considered technically viable. ADEM forms can be found on the Department's website at http://adem.alabama.gov/DeptForms/.

   Information required for new or increased discharges to high quality waters:

   A. What environmental or public health problem will the discharger be correcting?

   _____

   B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

   _____

   C. How much reduction in employment will the discharger be avoiding?

   _____

   D. How much additional state or local taxes will the discharger be paying?

   _____

   E. What public service to the community will the discharger be providing?

   _____

   F. What economic or social benefit will the discharger be providing to the community?

   _____

SECTION G – EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a POTW or other TWTDS depending on the number and types of discharges or outfalls. The EPA application forms are found on the Department's website at http://adem.alabama.gov/programs/water/waterforms.cnt. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for new or existing discharges of sanitary wastewater from Publicly-Owned Treatment Works (POTW) and Other Treatment Works Treating Domestic Sewage (TWTDS) must submit Form 2A.
3. Applicants for new or existing land application of sanitary wastewater must submit Form 2A and, if the land application site is not completely bermed to prevent runoff, applicants must also submit Form 2F.
4. Applicants for new and existing discharges of process wastewater from water treatment facilities (i.e. public water supply treatment plants) must submit Form 2C.
5. Applicants that generate sewage sludge, derive a material from sewage sludge, or dispose of sewage sludge must submit Part 2 of Form 2S.

SECTION H– ENGINEERING REPORT/BMP PLAN REQUIREMENTS

Any Engineering Report or Best Management Practice (BMP) Plans required to be submitted to ADEM by the applicant must be in accordance with ADEM 335-6-6-.08(i) & (j).

SECTION I– RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?	Included in TMDL?*
DSN0011	Millians Creek	☐ Yes ■ No	☐ Yes ■ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);

(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);

(3) Requested interim limitations, if applicable;

(4) Date of final compliance with the TMDL limitations; and,

(5) Any other additional information available to support requested compliance schedule.

SECTION J – APPLICATION CERTIFICATION

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

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

Signature of Responsible Official: _____ Date Signed: 9/20/19

Name and Title: William G. Parsons, Managing Member

If the Responsible Official signing this application is <u>not</u> identified in Section A.5 or A.8, provide the following information:

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Email Address: _____

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;

(b) In the case of a partnership, by a general partner;

(c) In the case of a sole proprietorship, by the proprietor; or

(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

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

FACILITY NAME AND PERMIT NUMBER:
Moundville Westervelt AL0082562

A. GENERAL INFORMATION

All applicants must complete this section.

A.1. Facility Information.

a. Facility name: Moundville Westervelt POTW

b. Mailing Address: Living Water Utilities, LLC
5800 Feldspar Way, Suite 200, Birmingham, Alabama 35244

c. Contact person: William G. Parsons

Title: Managing Member

Telephone number: (205) 985-2119

d. Facility Address (not P.O. Box): 2500 Gulf States Parkway
Moundville, Alabama 35474

e. Is this facility a Class I sludge management facility? _____ Yes ✓ No

f. Facility design flow rate: 0.0281 mgd

g. Total population served: 300.00

h. Indicate the type of facility:

_____ Publicly owned treatment works (POTW)
✓ Privately owned treatment works
_____ Federally owned treatment works
_____ Blending or treatment operation
_____ Surface disposal site
_____ Sewage sludge incinerator
_____ Other (describe)

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

a. Applicant name: Living Water Utilities, LLC

b. Mailing Address: 5800 Feldspar Way, Suite 200
Birmingham Alabama 35244

c. Contact person: William G. Parsons

Title: Managing Member

Telephone number: (205) 985-2119

d. Is the applicant the owner or operator (or both) of this facility?

_____ owner ✓ operator

e. Should correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility ✓ applicant

A.3. Permit Information.

a. Facility's NPDES permit number (if applicable): AL0082562

b. List, on this form or an attachment, all other Federal, State, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number	Type of Permit

A.4. Indian Country. Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?

_____Yes ___✓___No If yes, describe: _____

A.5. Topographic Map. Provide a topographic map or maps (or other appropriate map(s) if a topographic map is unavailable) that show the following information. Map(s) should include the area one mile beyond all property boundaries of the facility:

a. Location of all sewage sludge management facilities, including locations where sewage sludge is stored, treated, or disposed.

b. Location of all wells, springs, and other surface water bodies, listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundaries.

A.6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit, including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

A.7. Contractor Information.

Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _____Yes ___✓___No

If yes, provide the following for each contractor (attach additional pages if necessary):

a. Name _____

b. Mailing Address _____

_____

c. Telephone Number _____

d. Responsibilities of contractor _____

_____

FACILITY NAME AND PERMIT NUMBER:
Moundville Westervelt AL0082562

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

A.8. Pollution Concentrations: Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR Part 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC			Sludge stored in treatment lagoon
CADMIUM			no analyses required
CHROMIUM			
COPPER			
LEAD			
MERCURY			
MOLYBDENUM			
NICKEL			
SELENIUM			
ZINC			

A.9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of Form 2S you have completed and are submitting:

_____ Part 1 Limited Background Information packet

Part 2 Permit Application Information packet:

✓ Section A (General Information)

✓ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

_____ Section C (Land Application of Bulk Sewage Sludge)

_____ Section D (Surface Disposal)

_____ Section E (Incineration)

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

Name and official title: William G. Parsons, Managing Member

Signature: _____ Date signed: 9/20/16

Telephone number: (205) 285-2119

Upon request of the permitting authority, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge.

B.1. Amount Generated On Site.

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

B.2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use, or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

a. Facility name N/A

b. Mailing Address

c. Contact person

Title

Telephone number

d. Facility Address (not P.O. Box)

e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons

f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics.

B.3. Treatment Provided At Your Facility.

a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?

_____ Class A _____ Class B ✓ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids).
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None or unknown

B.3. Treatment Provided At Your Facility. (con't)

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:
N/A

e. Describe, on this form or another sheet of paper, any other sewage sludge treatment or blending activities not identified in (a) - (d) above:
N/A

Complete Section B.4 if sewage sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of §503.13, the Class A pathogen reduction requirements in §503.32(a), and one of the vector attraction reduction requirements in § 503.33(b)(1)-(8) and is land applied. Skip this section if sewage sludge from your facility does not meet all of these criteria.

B.4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1-8.

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: 0.00 dry metric tons

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

_____Yes ✓ No

Complete Section B.5. if you place sewage sludge in a bag or other container for sale or give-away for land application. Skip this section if the sewage sludge is covered in Section B.4.

B.5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: 0.00 dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

Complete Section B.6 if sewage sludge from your facility is provided to another facility that provides treatment or blending. This section does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this section if the sewage sludge is covered in Sections B.4 or B.5. If you provide sewage sludge to more than one facility, attach additional pages as necessary.

B.6. Shipment Off Site for Treatment or Blending.

a. Receiving facility name N/A

b. Mailing address

c. Contact person

Title

Telephone number

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

B.6. Shipment Off Site for Treatment or Blending. (con't)

e. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?____ Yes ____ No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

_____ Class A _____ Class B ✓ Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:
N/A

f. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge?
_____Yes ✓ No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge.

g. Does the receiving facility provide any additional treatment or blending activities not identified in (c) or (d) above? ____ Yes ✓ No

If yes, describe, on this form or another sheet of paper, the treatment or blending activities not identified in (c) or (d) above:

h. If you answered yes to (e), (f), or (g), attach a copy of any information you provide the receiving facility to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

i. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? _____ Yes ✓ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

Complete Section B.7 if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in:

- **Section B.4 (it meets Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8); or**
- **Section B.5 (you place it in a bag or other container for sale or give-away for application to the land); or**
- **Section B.6 (you send it to another facility for treatment or blending).**

B.7. Land Application of Bulk Sewage Sludge.

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 0.00 dry metric tons

B.7. Land Application of Bulk Sewage Sludge. (con't)

b. Do you identify all land application sites in Section C of this application? _____ Yes ✓ No

If no, submit a copy of the land application plan with application (see instructions).

c. Are any land application sites located in States other than the State where you generate sewage sludge or derive a material from sewage sludge? _____ Yes _____ No

If yes, describe, on this form or another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

Complete Section B.8 if sewage sludge from your facility is placed on a surface disposal site.

B.8. Surface Disposal.

a. Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: 0.00 dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

_____ Yes ✓ No

If no, answer B.8.c through B.8.f for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one such surface disposal site, attach additional pages as necessary.

c. Site name or number _____

d. Contact person _____

Title _____

Telephone number _____

Contact is _____Site owner _____Site operator

e. Mailing address _____

_____

f. Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period: _____ dry metric tons

Complete Section B.9 if sewage sludge from your facility is fired in a sewage sludge incinerator.

B.9. Incineration.

a. Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: 0.00 dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? _____ Yes ✓ No

If no, complete B.9.c through B.9.f for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one such sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number: _____

d. Contact person: _____

Title: _____

Telephone number: _____

Contact is: _____ Incinerator owner _____ Incinerator operator

B.9. Incineration. (con't)

e. Mailing address: _____

_____

f. Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period: 0.00 dry metric tons

Complete Section B.10 if sewage sludge from this facility is placed on a municipal solid waste landfill.

B.10. Disposal in a Municipal Solid Waste Landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

a. Name of landfill N/A

b. Contact person _____

Title _____

Telephone number _____

Contact is _____ Landfill owner _____ Landfill operator

c. Mailing address _____

_____

d. Location of municipal solid waste landfill:

Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

e. Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:

_____ dry metric tons

f. List, on this form or an attachment, the numbers of all other Federal, State, and local permits that regulate the operation of this municipal solid waste landfill.

Permit Number	Type of Permit
_____	_____
_____	_____
_____	_____

g. Submit, with this application, information to determine whether the sewage sludge meets applicable requirements for disposal of sewage sludge in a municipal solid waste landfill (e.g., results of paint filter liquids test and TCLP test)

h. Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR Part 258?

_____ Yes _____ No

Pace Analytical
www.pacelabs.com

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

SAMPLE ACKNOWLEDGMENT

Samples Submitted By: Living Water Services, LLC-WW
Client Project ID: Moundville Westervelt POTW -2A
Client PO#:

Pace Project Manager: Cindy Simpson
Phone (205)614-6630
cindy.simpson@pacelabs.com
Pace Analytical Project ID: 20119190
Samples Received: August 28, 2019 03:25 PM
Estimated Completion: September 19, 2019

CC: Mr. Bryan Perry,Mr. Grady Parsons,Ms. Karen Ivey

Customer Sample ID	Pace Analytical Lab ID	Matrix	Date/Time Collected	Method
Effluent composite 24hr	20119190001	Water	08/28/19 13:20	200.8 MET ICPMS Antimony, Arsenic, Beryllium, Cadmium, Calcium, Chromium, Copper, Lead, Magnesium, Nickel, Selenium, Silver, Thallium, Zinc, Total Hardness
				625 MSSV 2DAY
Trip Blanks	20119190002	Water	08/28/19 13:20	624 Volatile Organics
Effluent Grab	20119190003	Water	08/28/19 13:20	420.4 Phenolics, Total
				4500CNE Cyanide, Total
				624 Volatile Organics
Misc charge	20119190004	Water	08/28/19 13:20	TUSC Env Impact Fee
Cancelled	20119190005	Water	08/28/19 13:20	No Charge
Effluent Grab	20119190006	Water	08/28/19 13:20	Low Level Mercury
Field Blank	20119190007	Water	08/28/19 13:20	Low Level Mercury

Please contact your project manager if you recognize any discrepancy in this form or have any questions about your project.

Thank you for choosing Pace Analytical Services, LLC.

Pace Analytical®
www.pacelabs.com

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

SAMPLE ACKNOWLEDGMENT

Analyte List

Customer Sample ID	Method	Compound	Reporting Limit	Units
Effluent composite 24hr	200.8 Metals, Total	Antimony	0.001	mg/L
		Arsenic	0.001	mg/L
		Beryllium	0.0005	mg/L
		Cadmium	0.001	mg/L
		Calcium	0.1	mg/L
		Chromium	0.001	mg/L
		Copper	0.003	mg/L
		Lead	0.001	mg/L
		Magnesium	0.1	mg/L
		Nickel	0.001	mg/L
		Selenium	0.001	mg/L
		Silver	0.0005	mg/L
		Thallium	0.0005	mg/L
		Zinc	0.005	mg/L
		Total Hardness	0.005	mg/L
	625 MSSV 2DAY	Phenol	0.01	mg/L
		bis(2-Chloroethyl) ether	0.01	mg/L
		2-Chlorophenol	0.01	mg/L
		2,2'-Oxybis(1-chloropropane)	0.01	mg/L
		N-Nitroso-di-n-propylamine	0.01	mg/L
		Nitrobenzene	0.01	mg/L
		Isophorone	0.01	mg/L
		2-Nitrophenol	0.01	mg/L
		2,4-Dimethylphenol	0.01	mg/L
		bis(2-Chloroethoxy)methane	0.01	mg/L
		2,4-Dichlorophenol	0.01	mg/L
		1,2,4-Trichlorobenzene	0.01	mg/L
		Naphthalene	0.01	mg/L
		Hexachloro-1,3-butadiene	0.01	mg/L
		4-Chloro-3-methylphenol	0.01	mg/L
		Hexachlorocyclopentadiene	0.04	mg/L
		2,4,6-Trichlorophenol	0.01	mg/L
		2-Chloronaphthalene	0.01	mg/L
		Dimethylphthalate	0.01	mg/L
		Acenaphthylene	0.01	mg/L
		2,6-Dinitrotoluene	0.01	mg/L
		Acenaphthene	0.01	mg/L
		2,4-Dinitrophenol	0.04	mg/L
		4-Nitrophenol	0.04	mg/L
		2,4-Dinitrotoluene	0.01	mg/L
		Diethylphthalate	0.01	mg/L
		4-Chlorophenylphenyl ether	0.01	mg/L
		Fluorene	0.01	mg/L
		4,6-Dinitro-2-methylphenol	0.02	mg/L
		N-Nitrosodiphenylamine	0.01	mg/L
		4-Bromophenylphenyl ether	0.01	mg/L
		Hexachlorobenzene	0.01	mg/L
		Pentachlorophenol	0.04	mg/L
		Phenanthrene	0.01	mg/L
		Anthracene	0.01	mg/L
		Di-n-butylphthalate	0.01	mg/L

Please contact your project manager if you recognize any discrepancy in this form or have any questions about your project.

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(504) 469-0333

SAMPLE ACKNOWLEDGMENT

Analyte List

Customer Sample ID	Method	Compound	Reporting Limit	Units
		Pyrene	0.01	mg/L
		Butylbenzylphthalate	0.01	mg/L
		3,3'-Dichlorobenzidine	0.01	mg/L
		Benzo(a)anthracene	0.01	mg/L
		Chrysene	0.01	mg/L
		bis(2-Ethylhexyl)phthalate	0.01	mg/L
		Di-n-octylphthalate	0.01	mg/L
		Benzo(b)fluoranthene	0.01	mg/L
		Benzo(k)fluoranthene	0.01	mg/L
		Benzo(a)pyrene	0.01	mg/L
		Indeno(1,2,3-cd)pyrene	0.01	mg/L
		Dibenz(a,h)anthracene	0.01	mg/L
		Benzo(g,h,i)perylene	0.01	mg/L
		N-Nitrosodimethylamine	0.01	mg/L
		Hexachloroethane	0.01	mg/L
		1,2-Diphenylhydrazine	0.01	mg/L
		Benzidine	0.03	mg/L
Trip Blanks	624 Volatile Organics	1,1-Dichloroethane	0.005	mg/L
		1,1-Dichloroethene	0.005	mg/L
		1,1,1-Trichloroethane	0.005	mg/L
		1,1,2-Trichloroethane	0.005	mg/L
		1,1,2,2-Tetrachloroethane	0.005	mg/L
		1,2-Dichlorobenzene	0.005	mg/L
		1,2-Dichloroethane	0.005	mg/L
		1,2-Dichloropropane	0.005	mg/L
		1,3-Dichlorobenzene	0.005	mg/L
		1,4-Dichlorobenzene	0.005	mg/L
		2-Chloroethylvinyl ether	0.02	mg/L
		Acrolein	0.02	mg/L
		Acrylonitrile	0.02	mg/L
		Benzene	0.005	mg/L
		Bromodichloromethane	0.005	mg/L
		Bromomethane	0.005	mg/L
		Bromoform	0.005	mg/L
		cis-1,3-Dichloropropene	0.005	mg/L
		Carbon tetrachloride	0.005	mg/L
		Chlorobenzene	0.005	mg/L
		Chloroethane	0.005	mg/L
		Chloroform	0.005	mg/L
		Chloromethane	0.005	mg/L
		Dibromochloromethane	0.005	mg/L
		Ethylbenzene	0.005	mg/L
		Methylene Chloride	0.005	mg/L
		trans-1,2-Dichloroethene	0.005	mg/L
		trans-1,3-Dichloropropene	0.005	mg/L
		Tetrachloroethene	0.005	mg/L
		Toluene	0.005	mg/L
		Trichloroethene	0.005	mg/L
		Vinyl chloride	0.005	mg/L
Effluent Grab	420.4 Phenolics, Total	Phenolics, Total Recoverable	0.02	mg/L
	4500CNE Cyanide, Total	Cyanide	0.01	mg/L

Please contact your project manager if you recognize any discrepancy in this form or have any questions about your project.

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SAMPLE ACKNOWLEDGMENT

Analyte List

Customer Sample ID	Method	Compound	Reporting Limit	Units
	624 Volatile Organics	1,1-Dichloroethane	0.005	mg/L
		1,1-Dichloroethene	0.005	mg/L
		1,1,1-Trichloroethane	0.005	mg/L
		1,1,2-Trichloroethane	0.005	mg/L
		1,1,2,2-Tetrachloroethane	0.005	mg/L
		1,2-Dichlorobenzene	0.005	mg/L
		1,2-Dichloroethane	0.005	mg/L
		1,2-Dichloropropane	0.005	mg/L
		1,3-Dichlorobenzene	0.005	mg/L
		1,4-Dichlorobenzene	0.005	mg/L
		2-Chloroethylvinyl ether	0.02	mg/L
		Acrolein	0.02	mg/L
		Acrylonitrile	0.02	mg/L
		Benzene	0.005	mg/L
		Bromodichloromethane	0.005	mg/L
		Bromomethane	0.005	mg/L
		Bromoform	0.005	mg/L
		cis-1,3-Dichloropropene	0.005	mg/L
		Carbon tetrachloride	0.005	mg/L
		Chlorobenzene	0.005	mg/L
		Chloroethane	0.005	mg/L
		Chloroform	0.005	mg/L
		Chloromethane	0.005	mg/L
		Dibromochloromethane	0.005	mg/L
		Ethylbenzene	0.005	mg/L
		Methylene Chloride	0.005	mg/L
		trans-1,2-Dichloroethene	0.005	mg/L
		trans-1,3-Dichloropropene	0.005	mg/L
		Tetrachloroethene	0.005	mg/L
		Toluene	0.005	mg/L
		Trichloroethene	0.005	mg/L
		Trichlorofluoromethane	0.005	mg/L
		Vinyl chloride	0.005	mg/L

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Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

July 23, 2019

Mr. Grady Parsons
Living Water Services, LLC
5800 Feldspar Way, Suite 200
Birmingham, AL 35244

RE: Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Dear Mr. Parsons:
Enclosed are the analytical results for sample(s) received by the laboratory on May 28, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Cindy Simpson

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

Enclosures

cc: Ms. Karen Ivey, Living Water Services, LLC
Mr. Bryan Perry, Living Water Services, LLC

Pace Analytical Services, LLC
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(205)614-6630

CERTIFICATIONS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
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
Pennsylvania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

Tampa Certification IDs

110 South Bayview Blvd., Tampa, FL 34677
Florida Certification #:E84129

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SAMPLE ANALYTE COUNT

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20105573001	**Effluent Grab**	EPA 624	GEM	36	PASI-N
		EPA 1631E	NMT	1	PASI-T
		EPA 420.4	MHM	1	PASI-N
		SM 4500-CN-E	MHM	1	PASI-N
20105573002	**Trip Blanks**	EPA 624	GEM	35	PASI-N
		EPA 1631E	NMT	1	PASI-T
20105573004	**Effluent composite 24hr**	EPA 200.7	MHB1	14	PASI-N
		EPA 200.8	KJR	12	PASI-N
		EPA 625	JAB	59	PASI-N
20105573005	**Duplicate LL Hg**	EPA 1631E	NMT	1	PASI-T

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ANALYTICAL RESULTS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Sample: Effluent Grab **Lab ID: 20105573001** Collected: 05/24/19 11:30 Received: 05/28/19 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics	Analytical Method: EPA 624							
Acrolein	ND	mg/L	0.020	1		06/01/19 02:34	107-02-8	
Acrylonitrile	ND	mg/L	0.020	1		06/01/19 02:34	107-13-1	
Benzene	ND	mg/L	0.0050	1		06/01/19 02:34	71-43-2	
Bromodichloromethane	ND	mg/L	0.0050	1		06/01/19 02:34	75-27-4	
Bromoform	ND	mg/L	0.0050	1		06/01/19 02:34	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		06/01/19 02:34	74-83-9	
Carbon tetrachloride	ND	mg/L	0.0050	1		06/01/19 02:34	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		06/01/19 02:34	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		06/01/19 02:34	75-00-3	
2-Chloroethylvinyl ether	ND	mg/L	0.020	1		06/01/19 02:34	110-75-8	M1,c3
Chloroform	ND	mg/L	0.0050	1		06/01/19 02:34	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		06/01/19 02:34	74-87-3	
Dibromochloromethane	ND	mg/L	0.0050	1		06/01/19 02:34	124-48-1	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		06/01/19 02:34	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		06/01/19 02:34	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		06/01/19 02:34	106-46-7	
1,1-Dichloroethane	ND	mg/L	0.0050	1		06/01/19 02:34	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		06/01/19 02:34	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		06/01/19 02:34	75-35-4	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		06/01/19 02:34	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		06/01/19 02:34	78-87-5	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		06/01/19 02:34	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		06/01/19 02:34	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		06/01/19 02:34	100-41-4	
Methylene Chloride	ND	mg/L	0.0050	1		06/01/19 02:34	75-09-2	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		06/01/19 02:34	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		06/01/19 02:34	127-18-4	
Toluene	ND	mg/L	0.0050	1		06/01/19 02:34	108-88-3	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		06/01/19 02:34	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		06/01/19 02:34	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		06/01/19 02:34	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		06/01/19 02:34	75-69-4	
Vinyl chloride	ND	mg/L	0.0050	1		06/01/19 02:34	75-01-4	
Surrogates								
4-Bromofluorobenzene (S)	102	%.	82-118	1		06/01/19 02:34	460-00-4	
Toluene-d8 (S)	101	%.	81-120	1		06/01/19 02:34	2037-26-5	
Dibromofluoromethane (S)	100	%.	77-123	1		06/01/19 02:34	1868-53-7	
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E							
Mercury	**1.80**	ng/L	0.50	1	05/31/19 18:06	06/01/19 13:13	7439-97-6	
420.4 Phenolics, Total	Analytical Method: EPA 420.4 Preparation Method: EPA 420.4							
Phenolics, Total Recoverable	ND	mg/L	0.020	1	05/30/19 13:44	05/30/19 16:08		M1
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C							
Cyanide	ND	mg/L	0.020	1	05/31/19 11:43	06/03/19 13:27	57-12-5	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Sample: Trip Blanks **Lab ID: 20105573002** Collected: 05/24/19 11:35 Received: 05/28/19 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics	Analytical Method: EPA 624							
Acrolein	ND	mg/L	0.020	1		06/01/19 03:27	107-02-8	
Acrylonitrile	ND	mg/L	0.020	1		06/01/19 03:27	107-13-1	
Benzene	ND	mg/L	0.0050	1		06/01/19 03:27	71-43-2	
Bromodichloromethane	ND	mg/L	0.0050	1		06/01/19 03:27	75-27-4	
Bromoform	ND	mg/L	0.0050	1		06/01/19 03:27	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		06/01/19 03:27	74-83-9	
Carbon tetrachloride	ND	mg/L	0.0050	1		06/01/19 03:27	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		06/01/19 03:27	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		06/01/19 03:27	75-00-3	
2-Chloroethylvinyl ether	ND	mg/L	0.020	1		06/01/19 03:27	110-75-8	c3
Chloroform	ND	mg/L	0.0050	1		06/01/19 03:27	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		06/01/19 03:27	74-87-3	
Dibromochloromethane	ND	mg/L	0.0050	1		06/01/19 03:27	124-48-1	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		06/01/19 03:27	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		06/01/19 03:27	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		06/01/19 03:27	106-46-7	
1,1-Dichloroethane	ND	mg/L	0.0050	1		06/01/19 03:27	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		06/01/19 03:27	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		06/01/19 03:27	75-35-4	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		06/01/19 03:27	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		06/01/19 03:27	78-87-5	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		06/01/19 03:27	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		06/01/19 03:27	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		06/01/19 03:27	100-41-4	
Methylene Chloride	ND	mg/L	0.0050	1		06/01/19 03:27	75-09-2	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		06/01/19 03:27	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		06/01/19 03:27	127-18-4	
Toluene	ND	mg/L	0.0050	1		06/01/19 03:27	108-88-3	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		06/01/19 03:27	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		06/01/19 03:27	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		06/01/19 03:27	79-01-6	
Vinyl chloride	ND	mg/L	0.0050	1		06/01/19 03:27	75-01-4	
Surrogates								
4-Bromofluorobenzene (S)	98	%.	82-118	1		06/01/19 03:27	460-00-4	
Toluene-d8 (S)	100	%.	81-120	1		06/01/19 03:27	2037-26-5	
Dibromofluoromethane (S)	99	%.	77-123	1		06/01/19 03:27	1868-53-7	
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E							
Mercury	ND	ng/L	0.50	1	05/31/19 18:06	06/01/19 12:08	7439-97-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

ANALYTICAL RESULTS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Sample: Effluent composite 24hr **Lab ID: 20105573004** Collected: 05/24/19 11:25 Received: 05/28/19 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Antimony	ND	mg/L	0.060	1	06/04/19 05:00	06/06/19 23:36	7440-36-0	
Arsenic	ND	mg/L	0.010	1	06/04/19 05:00	06/06/19 23:36	7440-38-2	
Beryllium	ND	mg/L	0.0050	1	06/04/19 05:00	06/06/19 23:36	7440-41-7	
Cadmium	ND	mg/L	0.0050	1	06/04/19 05:00	06/06/19 23:36	7440-43-9	
Calcium	**21.2**	mg/L	1.0	1	06/04/19 05:00	06/06/19 23:36	7440-70-2	
Chromium	ND	mg/L	0.010	1	06/04/19 05:00	06/06/19 23:36	7440-47-3	
Copper	ND	mg/L	0.010	1	06/04/19 05:00	06/06/19 23:36	7440-50-8	
Lead	ND	mg/L	0.0050	1	06/04/19 05:00	06/06/19 23:36	7439-92-1	
Magnesium	**9.5**	mg/L	1.0	1	06/04/19 05:00	06/06/19 23:36	7439-95-4	
Nickel	ND	mg/L	0.040	1	06/04/19 05:00	06/06/19 23:36	7440-02-0	
Selenium	ND	mg/L	0.020	1	06/04/19 05:00	06/06/19 23:36	7782-49-2	
Silver	ND	mg/L	0.010	1	06/04/19 05:00	06/06/19 23:36	7440-22-4	
Thallium	ND	mg/L	0.010	1	06/04/19 05:00	06/06/19 23:36	7440-28-0	
Zinc	ND	mg/L	0.020	1	06/04/19 05:00	06/06/19 23:36	7440-66-6	
200.8 Metals, Total	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Antimony	ND	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7440-36-0	
Arsenic	**0.0013**	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7440-38-2	
Beryllium	ND	mg/L	0.00050	1	06/11/19 12:05	06/13/19 13:07	7440-41-7	
Cadmium	ND	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7440-43-9	
Chromium	ND	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7440-47-3	
Copper	ND	mg/L	0.0030	1	06/11/19 12:05	06/13/19 13:07	7440-50-8	
Lead	ND	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7439-92-1	
Nickel	**0.011**	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7440-02-0	D6,M1
Selenium	ND	mg/L	0.0010	1	06/11/19 12:05	06/13/19 13:07	7782-49-2	
Silver	ND	mg/L	0.00050	1	06/11/19 12:05	06/13/19 13:07	7440-22-4	
Thallium	ND	mg/L	0.00050	1	06/11/19 12:05	06/13/19 13:07	7440-28-0	
Zinc	**0.0094**	mg/L	0.0050	1	06/11/19 12:05	06/13/19 13:07	7440-66-6	
625 MSSV 2DAY	Analytical Method: EPA 625 Preparation Method: EPA 625							
Acenaphthene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	83-32-9	
Acenaphthylene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	208-96-8	
Anthracene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	120-12-7	
Benzidine	ND	mg/L	0.030	1	05/31/19 10:30	06/06/19 21:47	92-87-5	
Benzo(a)anthracene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	56-55-3	
Benzo(a)pyrene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	50-32-8	
Benzo(b)fluoranthene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	205-99-2	
Benzo(g,h,i)perylene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	191-24-2	
Benzo(k)fluoranthene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	207-08-9	
4-Bromophenylphenyl ether	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	101-55-3	
Butylbenzylphthalate	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	85-68-7	
4-Chloro-3-methylphenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	59-50-7	
bis(2-Chloroethoxy)methane	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	111-91-1	
bis(2-Chloroethyl) ether	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	111-44-4	
2-Chloronaphthalene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	91-58-7	L3
2-Chlorophenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	95-57-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

ANALYTICAL RESULTS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Sample: Effluent composite 24hr **Lab ID: 20105573004** Collected: 05/24/19 11:25 Received: 05/28/19 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV 2DAY	Analytical Method: EPA 625 Preparation Method: EPA 625							
4-Chlorophenylphenyl ether	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	7005-72-3	
Chrysene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	218-01-9	
Dibenz(a,h)anthracene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	53-70-3	
3,3'-Dichlorobenzidine	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	91-94-1	
2,4-Dichlorophenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	120-83-2	
Diethylphthalate	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	84-66-2	
2,4-Dimethylphenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	105-67-9	
Dimethylphthalate	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	131-11-3	
Di-n-butylphthalate	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	84-74-2	
4,6-Dinitro-2-methylphenol	ND	mg/L	0.020	1	05/31/19 10:30	06/06/19 21:47	534-52-1	
2,4-Dinitrophenol	ND	mg/L	0.040	1	05/31/19 10:30	06/06/19 21:47	51-28-5	
2,4-Dinitrotoluene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	121-14-2	
2,6-Dinitrotoluene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	606-20-2	
Di-n-octylphthalate	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	117-84-0	
1,2-Diphenylhydrazine	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	117-81-7	
Fluorene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	86-73-7	
Hexachloro-1,3-butadiene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	87-68-3	
Hexachlorobenzene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	118-74-1	
Hexachlorocyclopentadiene	ND	mg/L	0.040	1	05/31/19 10:30	06/06/19 21:47	77-47-4	
Hexachloroethane	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	67-72-1	L3
Indeno(1,2,3-cd)pyrene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	193-39-5	
Isophorone	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	78-59-1	
Naphthalene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	91-20-3	
Nitrobenzene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	98-95-3	
2-Nitrophenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	88-75-5	
4-Nitrophenol	ND	mg/L	0.040	1	05/31/19 10:30	06/06/19 21:47	100-02-7	
N-Nitrosodimethylamine	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	62-75-9	
N-Nitroso-di-n-propylamine	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	621-64-7	
N-Nitrosodiphenylamine	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	86-30-6	
2,2'-Oxybis(1-chloropropane)	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	108-60-1	
Pentachlorophenol	ND	mg/L	0.040	1	05/31/19 10:30	06/06/19 21:47	87-86-5	
Phenanthrene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	85-01-8	
Phenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	108-95-2	
Pyrene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	129-00-0	
1,2,4-Trichlorobenzene	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	120-82-1	L3
2,4,6-Trichlorophenol	ND	mg/L	0.010	1	05/31/19 10:30	06/06/19 21:47	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	63	%.	33-120	1	05/31/19 10:30	06/06/19 21:47	4165-60-0	
2-Fluorobiphenyl (S)	59	%.	34-117	1	05/31/19 10:30	06/06/19 21:47	321-60-8	
Terphenyl-d14 (S)	56	%.	24-133	1	05/31/19 10:30	06/06/19 21:47	1718-51-0	
Phenol-d6 (S)	24	%.	10-120	1	05/31/19 10:30	06/06/19 21:47	13127-88-3	
2-Fluorophenol (S)	38	%.	10-118	1	05/31/19 10:30	06/06/19 21:47	367-12-4	
2,4,6-Tribromophenol (S)	76	%.	25-145	1	05/31/19 10:30	06/06/19 21:47	118-79-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

ANALYTICAL RESULTS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Sample: Duplicate LL Hg **Lab ID: 20105573005** Collected: 05/24/19 08:00 Received: 05/28/19 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E							
Mercury	**2.32**	ng/L	0.50	1	05/31/19 18:06	06/01/19 13:18	7439-97-6	

Pace Analytical Services, LLC
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(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 144113
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 20105573004

METHOD BLANK: 632570 Matrix: Water
Associated Lab Samples: 20105573004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	ND	0.060	06/06/19 22:43	
Arsenic	mg/L	ND	0.010	06/06/19 22:43	
Beryllium	mg/L	ND	0.0050	06/06/19 22:43	
Cadmium	mg/L	ND	0.0050	06/06/19 22:43	
Calcium	mg/L	ND	1.0	06/06/19 22:43	
Chromium	mg/L	ND	0.010	06/06/19 22:43	
Copper	mg/L	ND	0.010	06/06/19 22:43	
Lead	mg/L	ND	0.0050	06/06/19 22:43	
Magnesium	mg/L	ND	1.0	06/06/19 22:43	
Nickel	mg/L	ND	0.040	06/06/19 22:43	
Selenium	mg/L	ND	0.020	06/06/19 22:43	
Silver	mg/L	ND	0.010	06/06/19 22:43	
Thallium	mg/L	ND	0.010	06/06/19 22:43	
Zinc	mg/L	ND	0.020	06/06/19 22:43	

LABORATORY CONTROL SAMPLE: 632571

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	1	0.99	99	85-115	
Arsenic	mg/L	1	1.0	102	85-115	
Beryllium	mg/L	1	1.0	104	85-115	
Cadmium	mg/L	1	1.0	102	85-115	
Calcium	mg/L	10	10.1	101	85-115	
Chromium	mg/L	1	0.98	98	85-115	
Copper	mg/L	1	1.0	100	85-115	
Lead	mg/L	1	1.0	102	85-115	
Magnesium	mg/L	10	10.1	101	85-115	
Nickel	mg/L	1	1.0	101	85-115	
Selenium	mg/L	1	1.1	105	85-115	
Silver	mg/L	0.5	0.50	100	85-115	
Thallium	mg/L	1	0.98	98	85-115	
Zinc	mg/L	1	1.0	101	85-115	

MATRIX SPIKE SAMPLE: 632573

Parameter	Units	20106104001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	ND	1	0.92	92	70-130	
Arsenic	mg/L	ND	1	0.97	97	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

MATRIX SPIKE SAMPLE: 632573

Parameter	Units	20106104001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	mg/L	ND	1	0.99	99	70-130	
Cadmium	mg/L	ND	1	0.93	93	70-130	
Calcium	mg/L	32.4	10	40.1	77	70-130	
Chromium	mg/L	ND	1	0.92	92	70-130	
Copper	mg/L	ND	1	0.94	94	70-130	
Lead	mg/L	ND	1	0.94	94	70-130	
Magnesium	mg/L	10.3	10	19.3	90	70-130	
Nickel	mg/L	ND	1	0.93	93	70-130	
Selenium	mg/L	ND	1	0.96	96	70-130	
Silver	mg/L	ND	0.5	0.47	93	70-130	
Thallium	mg/L	ND	1	0.90	90	70-130	
Zinc	mg/L	ND	1	0.93	92	70-130	

MATRIX SPIKE SAMPLE: 632574

Parameter	Units	20106104002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	ND	1	0.91	91	70-130	
Arsenic	mg/L	ND	1	0.96	96	70-130	
Beryllium	mg/L	ND	1	0.97	97	70-130	
Cadmium	mg/L	ND	1	0.93	93	70-130	
Calcium	mg/L	28.2	10	34.4	62	70-130	M1
Chromium	mg/L	ND	1	0.91	91	70-130	
Copper	mg/L	ND	1	0.93	93	70-130	
Lead	mg/L	ND	1	0.93	93	70-130	
Magnesium	mg/L	8.8	10	17.2	84	70-130	
Nickel	mg/L	ND	1	0.93	93	70-130	
Selenium	mg/L	ND	1	0.96	95	70-130	
Silver	mg/L	ND	0.5	0.46	92	70-130	
Thallium	mg/L	ND	1	0.89	89	70-130	
Zinc	mg/L	0.023	1	0.94	92	70-130	

SAMPLE DUPLICATE: 632572

Parameter	Units	20106104001 Result	Dup Result	RPD	Qualifiers
Antimony	mg/L	ND	ND		
Arsenic	mg/L	ND	ND		
Beryllium	mg/L	ND	ND		
Cadmium	mg/L	ND	ND		
Calcium	mg/L	32.4	31.7	2	
Chromium	mg/L	ND	ND		
Copper	mg/L	ND	ND		
Lead	mg/L	ND	ND		
Magnesium	mg/L	10.3	10.0	3	
Nickel	mg/L	ND	ND		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

SAMPLE DUPLICATE: 632572

Parameter	Units	20106104001 Result	Dup Result	RPD	Qualifiers
Selenium	mg/L	ND	ND		
Silver	mg/L	ND	ND		
Thallium	mg/L	ND	ND		
Zinc	mg/L	ND	ND		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 145189
QC Batch Method: EPA 200.8
Associated Lab Samples: 20105573004

Analysis Method: EPA 200.8
Analysis Description: 200.8 MET

METHOD BLANK: 638714
Associated Lab Samples: 20105573004

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	06/13/19 13:00	
Arsenic	mg/L	ND	0.0010	06/13/19 13:00	
Beryllium	mg/L	ND	0.00050	06/13/19 13:00	
Cadmium	mg/L	ND	0.0010	06/13/19 13:00	
Chromium	mg/L	ND	0.0010	06/13/19 13:00	
Copper	mg/L	ND	0.0030	06/13/19 13:00	
Lead	mg/L	ND	0.0010	06/13/19 13:00	
Nickel	mg/L	ND	0.0010	06/13/19 13:00	
Selenium	mg/L	ND	0.0010	06/13/19 13:00	
Silver	mg/L	ND	0.00050	06/13/19 13:00	
Thallium	mg/L	ND	0.00050	06/13/19 13:00	
Zinc	mg/L	ND	0.0050	06/13/19 13:00	

LABORATORY CONTROL SAMPLE: 638715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	102	85-115	
Arsenic	mg/L	0.04	0.042	104	85-115	
Beryllium	mg/L	0.04	0.040	100	85-115	
Cadmium	mg/L	0.04	0.041	103	85-115	
Chromium	mg/L	0.04	0.041	102	85-115	
Copper	mg/L	0.04	0.042	105	85-115	
Lead	mg/L	0.04	0.042	104	85-115	
Nickel	mg/L	0.04	0.042	104	85-115	
Selenium	mg/L	0.04	0.043	106	85-115	
Silver	mg/L	0.04	0.041	103	85-115	
Thallium	mg/L	0.04	0.041	103	85-115	
Zinc	mg/L	0.04	0.045	113	85-115	

MATRIX SPIKE SAMPLE: 638717

Parameter	Units	20105573004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	ND	0.04	0.039	98	70-130	
Arsenic	mg/L	0.0013	0.04	0.041	100	70-130	
Beryllium	mg/L	ND	0.04	0.038	95	70-130	
Cadmium	mg/L	ND	0.04	0.038	96	70-130	
Chromium	mg/L	ND	0.04	0.038	94	70-130	
Copper	mg/L	ND	0.04	0.038	90	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

MATRIX SPIKE SAMPLE: 638717

Parameter	Units	20105573004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	mg/L	ND	0.04	0.041	103	70-130	
Nickel	mg/L	0.011	0.04	0.039	68	70-130	M1
Selenium	mg/L	ND	0.04	0.041	101	70-130	
Silver	mg/L	ND	0.04	0.036	90	70-130	
Thallium	mg/L	ND	0.04	0.041	102	70-130	
Zinc	mg/L	0.0094	0.04	0.048	96	70-130	

SAMPLE DUPLICATE: 638716

Parameter	Units	20105573004 Result	Dup Result	RPD	Qualifiers
Antimony	mg/L	ND	.00024J		
Arsenic	mg/L	0.0013	0.0013	0	
Beryllium	mg/L	ND	ND		
Cadmium	mg/L	ND	ND		
Chromium	mg/L	ND	.00039J		
Copper	mg/L	ND	.0021J		
Lead	mg/L	ND	.00013J		
Nickel	mg/L	0.011	0.0022	134	D6
Selenium	mg/L	ND	ND		
Silver	mg/L	ND	ND		
Thallium	mg/L	ND	ND		
Zinc	mg/L	0.0094	0.011	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 143993 Analysis Method: EPA 624
QC Batch Method: EPA 624 Analysis Description: 624 MSV
Associated Lab Samples: 20105573001, 20105573002

METHOD BLANK: 632088 Matrix: Water
Associated Lab Samples: 20105573001, 20105573002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/L	ND	0.0050	05/31/19 23:31	
1,1,2,2-Tetrachloroethane	mg/L	ND	0.0050	05/31/19 23:31	
1,1,2-Trichloroethane	mg/L	ND	0.0050	05/31/19 23:31	
1,1-Dichloroethane	mg/L	ND	0.0050	05/31/19 23:31	
1,1-Dichloroethene	mg/L	ND	0.0050	05/31/19 23:31	
1,2-Dichlorobenzene	mg/L	ND	0.0050	05/31/19 23:31	
1,2-Dichloroethane	mg/L	ND	0.0050	05/31/19 23:31	
1,2-Dichloropropane	mg/L	ND	0.0050	05/31/19 23:31	
1,3-Dichlorobenzene	mg/L	ND	0.0050	05/31/19 23:31	
1,4-Dichlorobenzene	mg/L	ND	0.0050	05/31/19 23:31	
2-Chloroethylvinyl ether	mg/L	ND	0.020	05/31/19 23:31	
Acrolein	mg/L	ND	0.020	05/31/19 23:31	
Acrylonitrile	mg/L	ND	0.020	05/31/19 23:31	
Benzene	mg/L	ND	0.0050	05/31/19 23:31	
Bromodichloromethane	mg/L	ND	0.0050	05/31/19 23:31	
Bromoform	mg/L	ND	0.0050	05/31/19 23:31	
Bromomethane	mg/L	ND	0.0050	05/31/19 23:31	
Carbon tetrachloride	mg/L	ND	0.0050	05/31/19 23:31	
Chlorobenzene	mg/L	ND	0.0050	05/31/19 23:31	
Chloroethane	mg/L	ND	0.0050	05/31/19 23:31	
Chloroform	mg/L	ND	0.0050	05/31/19 23:31	
Chloromethane	mg/L	ND	0.0050	05/31/19 23:31	
cis-1,3-Dichloropropene	mg/L	ND	0.0050	05/31/19 23:31	
Dibromochloromethane	mg/L	ND	0.0050	05/31/19 23:31	
Ethylbenzene	mg/L	ND	0.0050	05/31/19 23:31	
Methylene Chloride	mg/L	ND	0.0050	05/31/19 23:31	
Tetrachloroethene	mg/L	ND	0.0050	05/31/19 23:31	
Toluene	mg/L	ND	0.0050	05/31/19 23:31	
trans-1,2-Dichloroethene	mg/L	ND	0.0050	05/31/19 23:31	
trans-1,3-Dichloropropene	mg/L	ND	0.0050	05/31/19 23:31	
Trichloroethene	mg/L	ND	0.0050	05/31/19 23:31	
Trichlorofluoromethane	mg/L	ND	0.0050	05/31/19 23:31	
Vinyl chloride	mg/L	ND	0.0050	05/31/19 23:31	
4-Bromofluorobenzene (S)	%.	104	82-118	05/31/19 23:31	
Dibromofluoromethane (S)	%.	96	77-123	05/31/19 23:31	
Toluene-d8 (S)	%.	99	81-120	05/31/19 23:31	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

LABORATORY CONTROL SAMPLE: 632089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/L	0.02	0.020	101	76-123	
1,1,2,2-Tetrachloroethane	mg/L	0.02	0.020	99	64-131	
1,1,2-Trichloroethane	mg/L	0.02	0.019	97	76-118	
1,1-Dichloroethane	mg/L	0.02	0.021	107	69-125	
1,1-Dichloroethene	mg/L	0.02	0.020	98	63-122	
1,2-Dichlorobenzene	mg/L	0.02	0.018	92	80-113	
1,2-Dichloroethane	mg/L	0.02	0.020	102	64-127	
1,2-Dichloropropane	mg/L	0.02	0.018	91	68-125	
1,3-Dichlorobenzene	mg/L	0.02	0.019	96	79-112	
1,4-Dichlorobenzene	mg/L	0.02	0.018	89	79-113	
2-Chloroethylvinyl ether	mg/L	0.04	0.032	80	52-138	
Acrolein	mg/L	0.02	0.020	100	10-164	
Acrylonitrile	mg/L	0.02	0.023	114	48-145	
Benzene	mg/L	0.02	0.018	92	72-131	
Bromodichloromethane	mg/L	0.02	0.020	100	72-117	
Bromoform	mg/L	0.02	0.022	110	58-124	
Bromomethane	mg/L	0.02	0.021	103	39-163	
Carbon tetrachloride	mg/L	0.02	0.023	114	73-121	
Chlorobenzene	mg/L	0.02	0.020	102	77-119	
Chloroethane	mg/L	0.02	0.022	109	36-155	
Chloroform	mg/L	0.02	0.019	93	69-115	
Chloromethane	mg/L	0.02	0.023	116	30-148	
cis-1,3-Dichloropropene	mg/L	0.02	0.018	88	70-120	
Dibromochloromethane	mg/L	0.02	0.020	102	63-120	
Ethylbenzene	mg/L	0.02	0.021	103	81-110	
Methylene Chloride	mg/L	0.02	0.019	97	58-136	
Tetrachloroethene	mg/L	0.02	0.023	113	68-126	
Toluene	mg/L	0.02	0.020	100	80-116	
trans-1,2-Dichloroethene	mg/L	0.02	0.018	91	60-126	
trans-1,3-Dichloropropene	mg/L	0.02	0.018	92	71-120	
Trichloroethene	mg/L	0.02	0.019	94	76-113	
Trichlorofluoromethane	mg/L	0.02	0.023	113	27-166	
Vinyl chloride	mg/L	0.02	0.021	107	45-126	
4-Bromofluorobenzene (S)	%.			100	82-118	
Dibromofluoromethane (S)	%.			98	77-123	
Toluene-d8 (S)	%.			99	81-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 632090 632091

Parameter	Units	20105573001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	mg/L	ND	0.02	0.02	0.021	0.019	105	97	76-141	8	
1,1,2,2-Tetrachloroethane	mg/L	ND	0.02	0.02	0.019	0.018	93	90	60-144	3	
1,1,2-Trichloroethane	mg/L	ND	0.02	0.02	0.019	0.019	96	94	72-132	2	
1,1-Dichloroethane	mg/L	ND	0.02	0.02	0.020	0.018	101	91	67-139	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 632090 632091

Parameter	Units	20105573001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1-Dichloroethene	mg/L	ND	0.02	0.02	0.021	0.018	103	91	62-139	13	
1,2-Dichlorobenzene	mg/L	ND	0.02	0.02	0.019	0.019	93	94	77-129	1	
1,2-Dichloroethane	mg/L	ND	0.02	0.02	0.020	0.020	99	100	63-139	0	
1,2-Dichloropropane	mg/L	ND	0.02	0.02	0.019	0.018	96	90	68-137	7	
1,3-Dichlorobenzene	mg/L	ND	0.02	0.02	0.019	0.019	93	94	76-128	1	
1,4-Dichlorobenzene	mg/L	ND	0.02	0.02	0.018	0.018	90	92	76-128	2	
2-Chloroethylvinyl ether	mg/L	ND	0.04	0.04	ND	ND	0	0	10-65		M1
Acrolein	mg/L	ND	0.02	0.02	0.022	.019J	94	80	10-200		
Acrylonitrile	mg/L	ND	0.02	0.02	.019J	.019J	95	95	31-177		
Benzene	mg/L	ND	0.02	0.02	0.019	0.018	97	90	52-167	7	
Bromodichloromethane	mg/L	ND	0.02	0.02	0.021	0.019	105	96	70-131	9	
Bromoform	mg/L	ND	0.02	0.02	0.021	0.021	106	104	58-134	2	
Bromomethane	mg/L	ND	0.02	0.02	0.022	0.019	108	95	36-177	13	
Carbon tetrachloride	mg/L	ND	0.02	0.02	0.024	0.022	122	112	67-143	8	
Chlorobenzene	mg/L	ND	0.02	0.02	0.020	0.019	99	96	73-135	3	
Chloroethane	mg/L	ND	0.02	0.02	0.024	0.022	120	111	35-172	8	
Chloroform	mg/L	ND	0.02	0.02	0.019	0.018	96	91	65-131	5	
Chloromethane	mg/L	ND	0.02	0.02	0.026	0.023	129	114	27-168	12	
cis-1,3-Dichloropropene	mg/L	ND	0.02	0.02	0.018	0.018	89	88	67-139	1	
Dibromochloromethane	mg/L	ND	0.02	0.02	0.020	0.019	100	94	60-134	6	
Ethylbenzene	mg/L	ND	0.02	0.02	0.020	0.019	100	96	75-130	4	
Methylene Chloride	mg/L	ND	0.02	0.02	0.020	0.018	101	92	60-138	10	
Tetrachloroethene	mg/L	ND	0.02	0.02	0.022	0.020	110	102	65-146	8	
Toluene	mg/L	ND	0.02	0.02	0.020	0.019	102	95	32-181	7	
trans-1,2-Dichloroethene	mg/L	ND	0.02	0.02	0.020	0.019	99	94	64-139	5	
trans-1,3-Dichloropropene	mg/L	ND	0.02	0.02	0.018	0.018	92	92	69-133	0	
Trichloroethene	mg/L	ND	0.02	0.02	0.020	0.018	101	90	73-132	12	
Trichlorofluoromethane	mg/L	ND	0.02	0.02	0.024	0.022	122	108	24-189	13	
Vinyl chloride	mg/L	ND	0.02	0.02	0.023	0.021	116	105	47-145	10	
4-Bromofluorobenzene (S)	%.						99	99	82-118		
Dibromofluoromethane (S)	%.						98	98	77-123		
Toluene-d8 (S)	%.						100	100	81-120		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 143889
QC Batch Method: EPA 625
Associated Lab Samples: 20105573004

Analysis Method: EPA 625
Analysis Description: 625 MSS 2DAY

METHOD BLANK: 631519
Associated Lab Samples: 20105573004

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	mg/L	ND	0.010	06/06/19 16:16	
1,2-Diphenylhydrazine	mg/L	ND	0.010	06/06/19 16:16	
2,2'-Oxybis(1-chloropropane)	mg/L	ND	0.010	06/06/19 16:16	
2,4,6-Trichlorophenol	mg/L	ND	0.010	06/06/19 16:16	
2,4-Dichlorophenol	mg/L	ND	0.010	06/06/19 16:16	
2,4-Dimethylphenol	mg/L	ND	0.010	06/06/19 16:16	
2,4-Dinitrophenol	mg/L	ND	0.040	06/06/19 16:16	
2,4-Dinitrotoluene	mg/L	ND	0.010	06/06/19 16:16	
2,6-Dinitrotoluene	mg/L	ND	0.010	06/06/19 16:16	
2-Chloronaphthalene	mg/L	ND	0.010	06/06/19 16:16	
2-Chlorophenol	mg/L	ND	0.010	06/06/19 16:16	
2-Nitrophenol	mg/L	ND	0.010	06/06/19 16:16	
3,3'-Dichlorobenzidine	mg/L	ND	0.010	06/06/19 16:16	
4,6-Dinitro-2-methylphenol	mg/L	ND	0.020	06/06/19 16:16	
4-Bromophenylphenyl ether	mg/L	ND	0.010	06/06/19 16:16	
4-Chloro-3-methylphenol	mg/L	ND	0.010	06/06/19 16:16	
4-Chlorophenylphenyl ether	mg/L	ND	0.010	06/06/19 16:16	
4-Nitrophenol	mg/L	ND	0.040	06/06/19 16:16	
Acenaphthene	mg/L	ND	0.010	06/06/19 16:16	
Acenaphthylene	mg/L	ND	0.010	06/06/19 16:16	
Anthracene	mg/L	ND	0.010	06/06/19 16:16	
Benzidine	mg/L	ND	0.030	06/06/19 16:16	
Benzo(a)anthracene	mg/L	ND	0.010	06/06/19 16:16	
Benzo(a)pyrene	mg/L	ND	0.010	06/06/19 16:16	
Benzo(b)fluoranthene	mg/L	ND	0.010	06/06/19 16:16	
Benzo(g,h,i)perylene	mg/L	ND	0.010	06/06/19 16:16	
Benzo(k)fluoranthene	mg/L	ND	0.010	06/06/19 16:16	
bis(2-Chloroethoxy)methane	mg/L	ND	0.010	06/06/19 16:16	
bis(2-Chloroethyl) ether	mg/L	ND	0.010	06/06/19 16:16	
bis(2-Ethylhexyl)phthalate	mg/L	ND	0.010	06/06/19 16:16	
Butylbenzylphthalate	mg/L	ND	0.010	06/06/19 16:16	
Chrysene	mg/L	ND	0.010	06/06/19 16:16	
Di-n-butylphthalate	mg/L	ND	0.010	06/06/19 16:16	
Di-n-octylphthalate	mg/L	ND	0.010	06/06/19 16:16	
Dibenz(a,h)anthracene	mg/L	ND	0.010	06/06/19 16:16	
Diethylphthalate	mg/L	ND	0.010	06/06/19 16:16	
Dimethylphthalate	mg/L	ND	0.010	06/06/19 16:16	
Fluorene	mg/L	ND	0.010	06/06/19 16:16	
Hexachloro-1,3-butadiene	mg/L	ND	0.010	06/06/19 16:16	
Hexachlorobenzene	mg/L	ND	0.010	06/06/19 16:16	
Hexachlorocyclopentadiene	mg/L	ND	0.040	06/06/19 16:16	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

METHOD BLANK: 631519 Matrix: Water
Associated Lab Samples: 20105573004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloroethane	mg/L	ND	0.010	06/06/19 16:16	
Indeno(1,2,3-cd)pyrene	mg/L	ND	0.010	06/06/19 16:16	
Isophorone	mg/L	ND	0.010	06/06/19 16:16	
N-Nitroso-di-n-propylamine	mg/L	ND	0.010	06/06/19 16:16	
N-Nitrosodimethylamine	mg/L	ND	0.010	06/06/19 16:16	
N-Nitrosodiphenylamine	mg/L	ND	0.010	06/06/19 16:16	
Naphthalene	mg/L	ND	0.010	06/06/19 16:16	
Nitrobenzene	mg/L	ND	0.010	06/06/19 16:16	
Pentachlorophenol	mg/L	ND	0.040	06/06/19 16:16	
Phenanthrene	mg/L	ND	0.010	06/06/19 16:16	
Phenol	mg/L	ND	0.010	06/06/19 16:16	
Pyrene	mg/L	ND	0.010	06/06/19 16:16	
2,4,6-Tribromophenol (S)	%.	70	25-145	06/06/19 16:16	
2-Fluorobiphenyl (S)	%.	54	34-117	06/06/19 16:16	
2-Fluorophenol (S)	%.	41	10-118	06/06/19 16:16	
Nitrobenzene-d5 (S)	%.	58	33-120	06/06/19 16:16	
Phenol-d6 (S)	%.	25	10-120	06/06/19 16:16	
Terphenyl-d14 (S)	%.	53	24-133	06/06/19 16:16	

LABORATORY CONTROL SAMPLE: 631520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	mg/L	0.05	0.021	41	44-142	1b
1,2-Diphenylhydrazine	mg/L	0.05	0.029	58	36-128	
2,2'-Oxybis(1-chloropropane)	mg/L	0.05	0.027	53	36-166	
2,4,6-Trichlorophenol	mg/L	0.05	0.036	72	37-144	
2,4-Dichlorophenol	mg/L	0.05	0.035	70	39-135	
2,4-Dimethylphenol	mg/L	0.05	0.028	56	32-119	
2,4-Dinitrophenol	mg/L	0.05	0.042	84	0.1-191	
2,4-Dinitrotoluene	mg/L	0.05	0.038	75	39-139	
2,6-Dinitrotoluene	mg/L	0.05	0.036	72	50-158	
2-Chloronaphthalene	mg/L	0.05	0.026	52	60-118	1b
2-Chlorophenol	mg/L	0.05	0.031	63	23-134	
2-Nitrophenol	mg/L	0.05	0.040	80	29-182	
3,3'-Dichlorobenzidine	mg/L	0.05	0.031	62	0.1-262	
4,6-Dinitro-2-methylphenol	mg/L	0.05	0.041	82	0.1-181	
4-Bromophenylphenyl ether	mg/L	0.05	0.033	67	53-127	
4-Chloro-3-methylphenol	mg/L	0.05	0.033	66	22-147	
4-Chlorophenylphenyl ether	mg/L	0.05	0.032	65	25-158	
4-Nitrophenol	mg/L	0.05	.016J	32	0.1-132	
Acenaphthene	mg/L	0.05	0.029	58	47-145	
Acenaphthylene	mg/L	0.05	0.030	60	33-145	
Anthracene	mg/L	0.05	0.034	68	27-133	
Benzidine	mg/L	0.05	.0083J	17	10-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

LABORATORY CONTROL SAMPLE: 631520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)anthracene	mg/L	0.05	0.035	70	33-143	
Benzo(a)pyrene	mg/L	0.05	0.036	72	17-163	
Benzo(b)fluoranthene	mg/L	0.05	0.036	73	24-159	
Benzo(g,h,i)perylene	mg/L	0.05	0.037	75	0.1-219	
Benzo(k)fluoranthene	mg/L	0.05	0.036	72	11-162	
bis(2-Chloroethoxy)methane	mg/L	0.05	0.032	64	33-184	
bis(2-Chloroethyl) ether	mg/L	0.05	0.031	61	12-158	
bis(2-Ethylhexyl)phthalate	mg/L	0.05	0.035	70	8-158	
Butylbenzylphthalate	mg/L	0.05	0.036	71	0.1-152	
Chrysene	mg/L	0.05	0.035	70	17-168	
Di-n-butylphthalate	mg/L	0.05	0.037	73	1-118	
Di-n-octylphthalate	mg/L	0.05	0.036	71	4-146	
Dibenz(a,h)anthracene	mg/L	0.05	0.037	74	0.1-227	
Diethylphthalate	mg/L	0.05	0.035	70	0.1-114	
Dimethylphthalate	mg/L	0.05	0.035	69	0.1-112	
Fluorene	mg/L	0.05	0.033	65	59-121	
Hexachloro-1,3-butadiene	mg/L	0.05	0.018	35	24-116	
Hexachlorobenzene	mg/L	0.05	0.035	70	0.1-152	
Hexachlorocyclopentadiene	mg/L	0.05	.014J	28	10-115	
Hexachloroethane	mg/L	0.05	0.016	31	40-113	1b
Indeno(1,2,3-cd)pyrene	mg/L	0.05	0.037	74	0.1-171	
Isophorone	mg/L	0.05	0.031	63	21-196	
N-Nitroso-di-n-propylamine	mg/L	0.05	0.030	59	0.1-230	
N-Nitrosodimethylamine	mg/L	0.05	0.020	40	29-126	
N-Nitrosodiphenylamine	mg/L	0.05	0.034	67	10-146	
Naphthalene	mg/L	0.05	0.024	48	21-133	
Nitrobenzene	mg/L	0.05	0.030	61	35-180	
Pentachlorophenol	mg/L	0.05	.036J	71	14-176	
Phenanthrene	mg/L	0.05	0.034	68	54-120	
Phenol	mg/L	0.05	0.014	28	5-112	
Pyrene	mg/L	0.05	0.035	70	52-115	
2,4,6-Tribromophenol (S)	%.			81	25-145	
2-Fluorobiphenyl (S)	%.			62	34-117	
2-Fluorophenol (S)	%.			43	10-118	
Nitrobenzene-d5 (S)	%.			64	33-120	
Phenol-d6 (S)	%.			26	10-120	
Terphenyl-d14 (S)	%.			65	24-133	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 543049 Analysis Method: EPA 1631E
QC Batch Method: EPA 1631E Analysis Description: 1631E Mercury,Low Level
Associated Lab Samples: 20105573001, 20105573002, 20105573005

METHOD BLANK: 2942714 Matrix: Water
Associated Lab Samples: 20105573001, 20105573002, 20105573005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ng/L	ND	0.50	06/01/19 11:33	

METHOD BLANK: 2942715 Matrix: Water
Associated Lab Samples: 20105573001, 20105573002, 20105573005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ng/L	ND	0.50	06/01/19 11:38	

METHOD BLANK: 2942716 Matrix: Water
Associated Lab Samples: 20105573001, 20105573002, 20105573005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ng/L	ND	0.50	06/01/19 11:43	

METHOD BLANK: 2942717 Matrix: Water
Associated Lab Samples: 20105573001, 20105573002, 20105573005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ng/L	ND	0.50	06/01/19 11:48	

LABORATORY CONTROL SAMPLE: 2942718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ng/L	5	4.42	88	77-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2942719 2942720

Parameter	Units	35471411001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	ng/L	0.553	2	2	2.51	3.02	98	123	71-125	18	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2942721 2942722

Parameter	Units	20105573001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	ng/L	1.80	5	5	5.80	6.58	80	96	71-125	13	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 143824
QC Batch Method: EPA 420.4
Analysis Method: EPA 420.4
Analysis Description: 420.4 Phenolics
Associated Lab Samples: 20105573001

METHOD BLANK: 631088 Matrix: Water
Associated Lab Samples: 20105573001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	0.020	05/30/19 16:05	

LABORATORY CONTROL SAMPLE: 631089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	0.1	0.11	112	80-120	

MATRIX SPIKE SAMPLE: 631091

Parameter	Units	20105573001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	0.1	0.068	54	75-125	M1

SAMPLE DUPLICATE: 631090

Parameter	Units	20105573001 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	ND		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALITY CONTROL DATA

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

QC Batch: 143942
QC Batch Method: SM 4500-CN-C
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 20105573001

METHOD BLANK: 631759
Matrix: Water
Associated Lab Samples: 20105573001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.020	06/03/19 13:22	

LABORATORY CONTROL SAMPLE: 631760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE SAMPLE: 631762

Parameter	Units	20105573001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	0.1	0.22	208	75-125	M1

SAMPLE DUPLICATE: 631761

Parameter	Units	20105573001 Result	Dup Result	RPD	Qualifiers
Cyanide	mg/L	ND	ND		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3516 Greensboro Avenue
Tuscaloosa, AL 35401
(205)614-6630

QUALIFIERS

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

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.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

LABORATORIES

PASI-N	Pace Analytical Services - New Orleans
PASI-T	Pace Analytical Services - Tampa

BATCH QUALIFIERS

Batch: 144700

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1b	Based on the number of analytes in this spike, it is statistically likely that some compounds may fall outside the QC limits. Data for this batch was accepted based on the TNI provision for marginal exceedances.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
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.

Pace Analytical Services, LLC
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(205)614-6630

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Moundville Westervelt POTW -2A
Pace Project No.: 20105573

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20105573004	Effluent composite 24hr	EPA 200.7	144113	EPA 200.7	144206
20105573004	Effluent composite 24hr	EPA 200.8	145189	EPA 200.8	145265
20105573004	Effluent composite 24hr	EPA 625	143889	EPA 625	144700
20105573001	Effluent Grab	EPA 624	143993		
20105573002	Trip Blanks	EPA 624	143993		
20105573001	Effluent Grab	EPA 1631E	543049	EPA 1631E	543111
20105573002	Trip Blanks	EPA 1631E	543049	EPA 1631E	543111
20105573005	Duplicate LL Hg	EPA 1631E	543049	EPA 1631E	543111
20105573001	Effluent Grab	EPA 420.4	143824	EPA 420.4	143863
20105573001	Effluent Grab	SM 4500-CN-C	143942	SM 4500-CN-E	143982

TTL LIMS Chain of Custody Form

WO#: 20105573

20105573

Client: Living Water Services, LLC

Contact: Mr. Grady Parsons

Mailing Address: 5800 Feldspar Way, Suite 200

City, State, Zip: Birmingham, AL 35244

Phone No.: (205) 780-4028

Sampled By: Client

Project ID: LW-2019 2A-Westervelt

Project Name: Moundville Westervelt POTW - 2A Part D - Sample #

Composite Sample Info

Sample

Start 5-23-19 0600 DATE/TIME

End 5-24-19 0600 DATE/TIME

Sample

Start DATE/TIME

End DATE/TIME

1. Condition of
2. Sealed for Sh
3. Initial Contents Temp.: ____ °C Seal Applied Yes____ No____
4. Custody Seal Intact Upon Receipt by Laboratory: Yes____ No____
5. Condition of Contents: ~~Good Ice~~
6. Comments: 3.0 °C at Tuscaloosa Lab
7. Reporting Status: Routine; ____; Rush By* ____ * SURCHARGES MAY APPLY
8. Client P.O. #

Date	Time	Sample ID/Description	Sample Type	Sample Method	Sample Containers	Analysis Parameters
5-24-19	1125	Effluent - Composite	Aqueous	COMP24	1 1/2 PT PL HNO3	200.7PR, 200.8_W, 200.8PR, ICPMETALS_TOTAL
	1125	Effluent - Composite	Aqueous	COMP24	2 1LAMGU8270	625PR, 625_WW
	1130	Effluent - Grab	Aqueous	GRAB	4 AG8260	624_2A
	1130	Effluent - Grab	Aqueous	GRAB	1 QT PL NAOH	CN-DW
	1130	Effluent - Grab	Aqueous	GRAB	1 1LAMGH2SO4	PHENOLS_TRW
	1135	Hg - Effluent - Grab	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
	1135	Hg - Field Blank	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
	1135	Hg - Spike	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
	1135	Hg - Spike/Dup	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
	1135	Trip Blank	Aqueous	GRAB	4 AG8260	624_2ABLANK

Duplicate Sample HgLL

CUSTODY TRANSFERS

Relinquished by: (signed) Date/Time

1 ByBy 5-28-19 1020

2

3

4

Received by (signed) Date/Time

1

2

3

4

SHIPPING DETAILS

Air Bill #:

Method of Shipment: Hand

Received By Lab: Brittany Gray

Date/Time 5-28-19 10.20am

WO#: 20105573

Pace Analytical

Sample Condition Upon Rec

PM: CRS Due Date: 06/18/19
CLIENT: TU-Livwater

Pace Analytical Services, LLC - Tuscaloosa, AL
Pace Analytical Services, LLC - Montgomery, AL

Projec

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

Custody Seal on Cooler/Box Present: [see COC] Custody Seals intact: ☐Yes ☐No

Therometer Used:	18178349

Type of Ice: (Wet) Blue None Samples on ice: [see COC]

Cooler Temperature: [see COC] Temp should be above freezing to 6°C

Date and Initials of person examining contents: BG

Temp must be measured from Temperature blank when present

				Comments:
Temperature Blank Present"?	☐Yes	☐No	☐N/A	1
Chain of Custody Present:	☑Yes	☐No	☐N/A	2
Chain of Custody Complete:	☑Yes	☐No	☐N/A	3
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	4
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	5
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	6
Sufficient Volume:	☑Yes	☐No	☐N/A	7
Correct Containers Used:	☑Yes	☐No	☐N/A	8
Filtered vol. Rec. for Diss. tests	☐Yes	☐No	☑N/A	9
Sample Labels match COC:	☑Yes	☐No	☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☑Yes	☐No	☐N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	☑Yes	☐No	☐N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	13 If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO_3 _____ H_2SO_4 _____
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14
Trip Blank Present:	☐Yes	☑No		15

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

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April 02, 2018

Mr. Grady Parsons
Living Water Services, LLC
5800 Feldspar Way, Suite 200
Birmingham, AL 35244

RE: EPA Form 2A - Part D - Sample #1
Work Order Number: **180309043**

Dear Client:

TTL, Inc. received sample(s) and/or data on Friday, March 09, 2018 for the information presented in the attached report.

If you should have any questions regarding this information, please feel free to call. The work order number shown above will assist us in accessing your data more efficiently.

Thank you for the opportunity to provide these services.

Sincerely,
TTL, Inc.

Steve Martin
Senior Vice President

Attachments

cc: Ms. Karen Ivey
cc: Mr. Bryan Perry

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Date: 02-Apr-18

CLIENT: Living Water Services, LLC
Project: EPA Form 2A - Part D - Sample #1
Lab Order: 180309043

CASE NARRATIVE

The samples were analyzed in general accordance with methods outlined in 40 CFR, Part 136.The samples were analyzed in general accordance with methods outlined in 40 CFR, Part 136 and Method 1631 E outlined in "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40 CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

To help with completing the EPA Form 2A, the following is a list of compounds that are listed by one name in our report and another on the Form:

Report = Form 2A

VOLATILES
Bromodichloromethane = Dichlorobromo-methane
Dibromochloromethane = Chlorodibromo-methane
trans-1,2-dichloroethene = trans-1,2-dichloro-ethylene
1,1-dichloroethene = 1,1-dichloroethylene
cis-1,3-dichloropropene plus trans-1,3-dichloropropene = 1,3-dichloro-propylene
Bromomethane = Methyl Bromide
Chloromethane = Methyl Chloride
Tetrachloroethene = Tetrachloro-ethylene
Trichloroethene = Trichloro-ethylene

BASE-NEUTRAL/ACID-EXTRACTABLE
4-Chloro-3-methylphenol = P-Chloro-M-Cresol
4,6-Dinitro-2-methylphenol = 4,6-Dinitro-O-Cresol
Benzo(b)fluoranthene = 3,4 Benzo-Fluoranthene

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Date: 02-Apr-18

CLIENT: Living Water Services, LLC **Lab Order:** 180309043
Project: EPA Form 2A - Part D - Sample #1

Lab ID: 180309043-001 **Collection Date:** 03/09/2018 12:50
Client Sample ID: Effluent - Composite **Matrix:** Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
ICP METALS, TOTAL		**E200.7**	Prep:(E200.7)	03/14/2018 10:00	Analyst: **SFC**
Calcium, as Ca	20.7	0.500	mg/L	1	03/23/2018 11:10
Magnesium, as Mg	9.50	0.500	mg/L	1	03/23/2018 11:10
Hardness, Calcium/Magnesium (As CaCO3)	90.8	1.00	mg/L	1	03/23/2018 11:10
Hardness, Calcium (As CaCO3)	51.7	1.00	mg/L	1	03/23/2018 11:10
SEMIVOLATILE ORGANICS BY 625		**E625**	Prep:(E625)	03/14/2018 10:13	Analyst: **ShMK**
1,2,4-Trichlorobenzene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
1,2-Diphenylhydrazine	< 0.050	0.050	mg/L	1	03/28/2018 20:09
2,4,6-Trichlorophenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2,4-Dichlorophenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2,4-Dimethylphenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2,4-Dinitrophenol	< 0.050	0.050	mg/L	1	03/28/2018 20:09
2,4-Dinitrotoluene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2,6-Dinitrotoluene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2-Chloronaphthalene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2-Chlorophenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
2-Nitrophenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
3,3'-Dichlorobenzidine	< 0.020	0.020	mg/L	1	03/28/2018 20:09
4,6-Dinitro-2-methylphenol	< 0.050	0.050	mg/L	1	03/28/2018 20:09
4-Bromophenyl phenyl ether	< 0.010	0.010	mg/L	1	03/28/2018 20:09
4-Chloro-3-methylphenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
4-Chlorophenyl phenyl ether	< 0.010	0.010	mg/L	1	03/28/2018 20:09
4-Nitrophenol	< 0.050	0.050	mg/L	1	03/28/2018 20:09
Acenaphthene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Acenaphthylene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Anthracene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Benz(A)anthracene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Benzidine	< 0.050	0.050	mg/L	1	03/28/2018 20:09
Benzo(a)pyrene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Benzo(b)fluoranthene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Benzo(g,h,i)perylene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Benzo(k)fluoranthene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Bis(2-chloroethoxy)methane	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Bis(2-chloroethyl)ether	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Bis(2-chloroisopropyl)ether	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Bis(2-ethylhexyl)phthalate	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Butyl benzyl phthalate	< 0.010	0.010	mg/L	1	03/28/2018 20:09

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Date: 02-Apr-18

CLIENT: Living Water Services, LLC **Lab Order:** 180309043
Project: EPA Form 2A - Part D - Sample #1

SEMIVOLATILE ORGANICS BY 625		**E625**	Prep:(E625)	03/14/2018 10:13	Analyst: **ShMK**
Chrysene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Dibenz(a,h)anthracene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Diethyl phthalate	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Dimethyl phthalate	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Di-n-butyl phthalate	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Di-n-octyl phthalate	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Fluoranthene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Fluorene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Hexachlorobenzene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Hexachlorobutadiene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Hexachlorocyclopentadiene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Hexachloroethane	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Indeno(1,2,3-cd)pyrene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Isophorone	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Naphthalene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Nitrobenzene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
N-Nitrosodimethylamine	< 0.010	0.010	mg/L	1	03/28/2018 20:09
N-Nitrosodi-n-propylamine	< 0.010	0.010	mg/L	1	03/28/2018 20:09
N-Nitrosodiphenylamine	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Pentachlorophenol	< 0.025	0.025	mg/L	1	03/28/2018 20:09
Phenanthrene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Phenol	< 0.010	0.010	mg/L	1	03/28/2018 20:09
Pyrene	< 0.010	0.010	mg/L	1	03/28/2018 20:09
METALS BY ICP-MS		**200.8**	Prep:		Analyst: **Enersı**
Antimony, as Sb	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Arsenic, as As	0.00121	0.000500	mg/L	1	03/19/2018 10:00
Beryllium, as Be	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Cadmium, as Cd	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Chromium, as Cr	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Copper, as Cu	0.00124	0.000500	mg/L	1	03/19/2018 10:00
Lead, as Pb	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Nickel, as Ni	0.00279	0.000500	mg/L	1	03/19/2018 10:00
Selenium, as Se	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Silver, as Ag	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Thallium, as Tl	< 0.000500	0.000500	mg/L	1	03/19/2018 10:00
Zinc, as Zn	0.00862	0.000500	mg/L	1	03/19/2018 10:00

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Date: 02-Apr-18

CLIENT: Living Water Services, LLC **Lab Order:** 180309043
Project: EPA Form 2A - Part D - Sample #1

Lab ID: 180309043-002 **Collection Date:** 03/09/2018 12:50
Client Sample ID: Effluent - Grab **Matrix:** Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
VOLATILES BY GC/MS METHOD 624		**E624**	Prep:		Analyst: **LAA**
1,1,1-Trichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,1,2,2-Tetrachloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,1,2-Trichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,1-Dichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,1-Dichloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,2-Dichlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,2-Dichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,2-Dichloropropane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,3-Dichlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
1,4-Dichlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
2-Chloroethyl vinyl ether	< 0.010	0.010	mg/L	1	03/16/2018 21:22
Acrolein	< 0.100	0.100	mg/L	1	03/16/2018 21:22
Acrylonitrile	< 0.100	0.100	mg/L	1	03/16/2018 21:22
Benzene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Bromodichloromethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Bromoform	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Bromomethane	< 0.010	0.010	mg/L	1	03/16/2018 21:22
Carbon tetrachloride	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Chlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Chloroethane	< 0.010	0.010	mg/L	1	03/16/2018 21:22
Chloroform	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Chloromethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
cis-1,3-Dichloropropene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Dibromochloromethane	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Ethylbenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Methylene chloride	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Tetrachloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Toluene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
trans-1,2-Dichloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
trans-1,3-Dichloropropene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Trichloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:22
Vinyl chloride	< 0.002	0.002	mg/L	1	03/16/2018 21:22
CYANIDE, TOTAL		**M4500-CN CE**	Prep:		Analyst: **MTL**
Cyanide, Total	< 0.010	0.010	mg/L	1	03/14/2018 8:00
PHENOLS, TOTAL		**M5330 BD 2005**	Prep:		Analyst: **KMC**
Phenols	< 0.10	0.10	mg/L	1	03/30/2018 15:00

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www.TTLINC.com

Date: 02-Apr-18

CLIENT: Living Water Services, LLC
Project: EPA Form 2A - Part D - Sample #1
Lab Order: 180309043

Lab ID: 180309043-003
Collection Date: 03/09/2018 12:50
Client Sample ID: Hg-LL - Effluent
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
MERCURY LOW LEVEL		E1631	Prep:		Analyst: PACE
Mercury, Low Level as Hg	2.06	0.50	ng/L	1	03/23/2018 14:21

Lab ID: 180309043-004
Collection Date: 03/09/2018 12:50
Client Sample ID: Hg-LL - Matrix Spike
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
MERCURY LOW LEVEL		E1631	Prep:		Analyst: PACE
Mercury, Low Level as Hg	93	0.50	ng/L	1	03/23/2018 14:21

Lab ID: 180309043-005
Collection Date: 03/09/2018 12:50
Client Sample ID: Hg-LL - Matrix Spike/Duplicate
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
MERCURY LOW LEVEL		E1631	Prep:		Analyst: PACE
Mercury, Low Level as Hg	71	0.50	ng/L	1	03/23/2018 14:21

Lab ID: 180309043-006
Collection Date: 03/09/2018 12:50
Client Sample ID: Hg-LL - Field Blank
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
MERCURY LOW LEVEL		E1631	Prep:		Analyst: PACE
Mercury, Low Level as Hg	< 0.50	0.50	ng/L	1	03/23/2018 14:21

Lab ID: 180309043-007
Collection Date: 03/09/2018 12:50
Client Sample ID: Hg-LL - Field Duplicate
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
MERCURY LOW LEVEL		E1631	Prep:		Analyst: PACE
Mercury, Low Level as Hg	2.46	0.50	ng/L	1	03/23/2018 14:21

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Date: 02-Apr-18

CLIENT: Living Water Services, LLC **Lab Order:** 180309043
Project: EPA Form 2A - Part D - Sample #1

Lab ID: 180309043-008 **Collection Date:** 03/09/2018 0:00
Client Sample ID: Trip Blank **Matrix:** Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
VOLATILES BY GC/MS METHOD 624		E624	Prep:		Analyst: LAA
1,1,1-Trichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,1,2,2-Tetrachloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,1,2-Trichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,1-Dichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,1-Dichloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,2-Dichlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,2-Dichloroethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,2-Dichloropropane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,3-Dichlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
1,4-Dichlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
2-Chloroethyl vinyl ether	< 0.010	0.010	mg/L	1	03/16/2018 21:49
Acrolein	< 0.100	0.100	mg/L	1	03/16/2018 21:49
Acrylonitrile	< 0.100	0.100	mg/L	1	03/16/2018 21:49
Benzene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Bromodichloromethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Bromoform	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Bromomethane	< 0.010	0.010	mg/L	1	03/16/2018 21:49
Carbon tetrachloride	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Chlorobenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Chloroethane	< 0.010	0.010	mg/L	1	03/16/2018 21:49
Chloroform	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Chloromethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
cis-1,3-Dichloropropene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Dibromochloromethane	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Ethylbenzene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Methylene chloride	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Tetrachloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Toluene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
trans-1,2-Dichloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
trans-1,3-Dichloropropene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Trichloroethene	< 0.005	0.005	mg/L	1	03/16/2018 21:49
Vinyl chloride	< 0.002	0.002	mg/L	1	03/16/2018 21:49

TTL LIMS Chain of Custody Form

Sheet 1 of 1

Client: Living Water Services, LLC
Contact: Mr. Grady Parsons
Mailing Address: 5600 Feldspar Way, Suite 200
City, State, Zip: Birmingham, AL 35244
Phone No.: (205) 780-4026
Sampled By: Grady Parsons - Client
Project ID: Living Water-2018 2A-D
Project Name: EPA Form 2A - Part D - Sample #

TTL WORK ORDER NUMBER **180309 043**

Composite Sample Info

Sample: Moundville Westside POTW
Start: 3/8/18 6:00pm (DATE/TIME)
End: 3/9/18 6:00am (DATE/TIME)

Sample: ____
Start: ____ (DATE/TIME)
End: ____ (DATE/TIME)

Sample Security Requirements

1. Condition of Contents: ____
2. Sealed for Shipping By: ____
3. Initial Contents Temp.: ____ °C Seal Applied Yes ____ No ____
4. Custody Seal Intact Upon Receipt by Laboratory: Yes ____ No ____
5. Condition of Contents: Good ✓ IC
6. Comments: 1.3° Gears
7. Reporting Status: Routine; ____ ; Rush By* ____ *SURCHARGES MAY APPLY
8. Client P.O. # 18002

Date	Time	Sample ID/Description	Sample Type	Sample Method	Sample Containers	Analysis Parameters
3/9/18	12:55pm	Effluent - Composite	Aqueous	COMP24	4 1LAMGU6270	625_WW
3/9/18	12:55pm	Effluent - Composite	Aqueous	COMP24	1 Qt Pl HNO3	ICP-MS_2A
3/9/18	12:55pm	Effluent - Grab	Aqueous	GRAB	4 AG8260	624_2A
3/9/18	12:55pm	Effluent - Grab	Aqueous	GRAB	1 QT PL NAOH	CN-DW
3/9/18	12:55pm	Effluent - Grab	Aqueous	GRAB	1 1LAMGH2SO4	PHENOLS_TRW
3/9/18	12:55pm	Hg-LL - Effluent	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
3/9/18	12:55pm	Hg-LL - Matrix Spike	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
3/9/18	12:55pm	Hg-LL - Matrix Spike/Duplicate	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
3/9/18	12:55pm	Hg-LL - Field Blank	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
3/9/18	12:55pm	Hg-LL - Field Duplicate	Aqueous	GRAB	1 HG_LL_500ml CG TT	HG_LL
3/9/18	12:55pm	Trip Blank	Aqueous	GRAB	4 AG8260	624_2ABLANK

CUSTODY TRANSFERS

	Relinquished by: (signed) Date/Time	Received by (signed) Date/Time
1	[signature] 3/9/18 1:50p	
2		
3		
4		

SHIPPING DETAILS

Air Bill #: ____
Method of Shipment: Hand
Received By Lab: [signature]
Date/Time: 3-9-18 1:50pm

Client Living Water Services, LLC

Sample Site/ID Mandeville Wetlands Pond

Date/Time 3/9/18 1:15 PM

Weather cond. Mild / Clear

Sampling Personnel:

Clean Hands (CH): Grady Rasco, Bryan Peavy

Dirty Hands (DH):

Equipment Documentation:

CH & DH have a wind suit on?	(YES)	NO	(ULINE #S-17924 XL 2XL)
CH has shoulder length gloves on?	(YES)	NO	(ULINE #S-20329)
CH & DH have latex, powder free gloves on?	(YES)	NO	(American Osment #8645)

TTL LIMS Work order number added at Log Review 1803090 43