

This file contains the following documents:

- 1. Summary of application (in plain language)
 - English
 - Alternative Language (Spanish)
- 2. First notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
 - English
 - Alternative Language (Spanish)
- 3. Second notice (NAPD-Notice of Preliminary Decision)
 - English
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- 4. Application materials *
- 5. Draft permit *
- 6. Technical summary or fact sheet *

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the blanks below to describe your facility and application. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Waco (CN600131940) operates the City of Waco Central Wastewater Treatment Plant RN102097235. a domestic wastewater treatment facility. The facility is located at 1147 Treatment Plant Road, in Waco, McLennan County, Texas 76706.

This application is for a renewal without changes to the existing Texas Discharge Elimination System (TPDES) Permit No. WQ0011071001 (EPA I.D. No. TX0026506) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 45,000,000 gallons per day.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), ammonia nitrogen (NH₃-N), and

Escherichia coli. Domestic wastewater is treated by passing first through bar screens, then it travels to the primary clarifiers, aeration basins, final clarifiers, and sand filters. Then treated wastewater is chlorinated and dechlorinated and discharged to the Brazos River. Sludge from the primary clarifiers passes through the clarifier and sludge screening and is then thickened. Sludge from the final clarifiers is also thickened. After sludge thickening the sludge is anaerobically digested. The sludge is sent to the belt presses and to a dryer.

INSTRUCTIONS

- 1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
- 2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
- 3. Choose "operates" in this section for existing facility applications or choose "proposes to operate" for new facility applications.
- 4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
- 5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
- 6. Choose the appropriate article (a or an) to complete the sentence.
- 7. Enter a description of the facility in this section. For example, a domestic permit might specify: city ISD, MUD, etc.
- 8. Choose "is" for an existing facility or "will be" for a new facility.
- 9. Enter the location of the facility in this section.
- 10. Enter the City nearest the facility in this section.
- 11. Enter the County nearest the facility in this section.
- 12. Enter the zip code for the facility address in this section.
- 13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
- 14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
- 15. Enter the discharge types from your facility in this section (e.g., domestic wastewater.)
- 16. Choose the appropriate verb tense to complete the sentence.
- 17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with

the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Examples

Example 1: Domestic Wastewater TPDES Renewal application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN0000000000) operates the City of Texas wastewater treatment plant (RN00000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to discharge at an annual average flow of 1,200,000 gallons per day of treated domestic wastewater via Outfalls 001 and 002.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3 -N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 2: TPDES New Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN000000000) proposes to operate the City of Texas wastewater treatment plant (RN00000000), an activated sludge process plant operated in the extended aeration mode. The facility will be located at 123 Texas Street, in the City of More Texas, Texas County, Texas 71234.

This application is for a new application to discharge at a daily average flow of 200,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3 -N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater will be treated by an activated sludge process plant and the treatment units will include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 3: TLAP Renewal application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN0000000000) operates the City of Texas wastewater treatment plant (RN00000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to dispose a daily average flow not to exceed 76,500 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 32 acres. This permit will not authorize a discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, an equalization basin, an aeration basin, a final clarifier, an aerobic sludge digester, tertiary filters, and a chlorine contact chamber. In addition, the facility includes a temporary storage that equals to at least three days of the daily average flow.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT RENEWAL

PERMIT NO. WQ0011071001

APPLICATION. City of Waco, P.O. Box 2570, Waco, Texas 76702, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011071001 (EPA I.D. No. TX0026506) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 45,000,000 gallons per day. The domestic wastewater treatment facility is located at 1147 Treatment Plant Road, Waco, in McLennan County, Texas 76706. The discharge route is from the plant site directly to the Brazos River Above Navasota River. TCEQ received this application on July 23, 2024. The permit application will be available for viewing and copying at City of Waco City Hall, 300 Austin Avenue, Waco, in McLennan County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.064444,31.5175&level=18

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. Notice of the Application and Preliminary Decision will be published and mailed to those who are on the countywide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for

requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing. A contested case hearing is a legal proceeding similar to a civil trial in state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.

TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at https://www14.tceq.texas.gov/epic/eComment/, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Waco at the address stated above or by calling Ms. Lisa Tyer, Utilities Director, at 254-750-8079.

Issuance Date: December 20, 2024

Texas Commission on Environmental Quality



NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR TPDES PERMIT FOR MUNICIPAL WASTEWATER

RENEWAL

PERMIT NO. WQ0011071001

APPLICATION AND PRELIMINARY DECISION. City of Waco, P.O. Box 2570, Waco, Texas 76702, has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011071001, which authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 45,000,000 gallons per day. TCEQ received this application on July 23, 2024.

The facility is located at 1147 Treatment Plant Road, in McLennan County, Texas 76706. The treated effluent is discharged directly to Brazos River Above Navasota River in Segment No. 1242 of the Brazos River Basin. The designated uses for Segment No. 1242 are primary contact recreation, public water supply, and high aquatic life use. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.064444,31.5175&level=18

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at City of Waco City Hall, 300 Austin Avenue, Waco, in McLennan County, Texas. The application, including any updates, and associated notices are available electronically at the following webpage:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ holds a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. Unless the application is directly referred for a contested case hearing, the response to comments will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision. A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period; and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, TX 78711-3087 or electronically at www.tceq.texas.gov/goto/comment within 30 days from the date of newspaper publication of this notice.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at www.tceq.texas.gov/goto/comment, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC 105, P.O. Box 13087, Austin, Texas 78711-3087. Any personal information you submit to the TCEQ will become part of the agency's record; this includes email addresses. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Waco at the address stated above or by calling Ms. Lisa Tyer, Utilities Director, at 254-750-8079.

Issuance Date: April 23, 2025



TPDES PERMIT NO. WQ0011071001 [For TCEQ office use only - EPA I.D. No. TX0026506]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY P.O. Box 13087 Austin, Texas 78711-3087

This is a renewal that replaces TPDES Permit No. WQ0011071001 issued on October 24, 2024.

PERMIT TO DISCHARGE WASTES

under provisions of Section 402 of the Clean Water Act and Chapter 26 of the Texas Water Code

City of Waco

whose mailing address is

P.O. Box 2570 Waco, Texas 76702

is authorized to treat and discharge wastes from the City of Waco Central Wastewater Treatment Facility, SIC Code 4952

located at 1147 Treatment Plant Road, in McLennan County, Texas 76706

directly to Brazos River Above Navasota River in Segment No. 1242 of the Brazos River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, **five years from the date of issuance**.

ISSUED DATE:	
	For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 45.0 million gallons per day (MGD), nor shall the average discharge during any two-hour period (2-hour peak) exceed 57,800 gallons per minute.

Effluent Characteristic	Discharge Limitations			Min. Self-Monitoring Requirements		
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Dail	y Avg. & Daily Max.
	mg/l (lbs/day)	mg/l	mg/l	mg/l	Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (3,753)	15	25	35	One/day	Composite
Total Suspended Solids	15 (5,630)	25	40	60	One/day	Composite
Ammonia Nitrogen	3 (1,126)	6	10	15	One/day	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	Five/week	Grab

- 2. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample.
- 4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- 5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- 6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored once per day by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

- a. Annual average flow the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.
- b. Daily average flow the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

- ii. For all other wastewater treatment plants When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- 7-day average concentration the arithmetic average of all effluent samples, composite
 or grab as required by this permit, within a period of one calendar week, Sunday through
 Saturday.
- c. Daily maximum concentration the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (*E. coli* or Enterococci) Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
- g. Daily maximum loading (lbs/day) the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

- b. Grab sample an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
- 5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
- 6. The term "biosolids" is defined as sewage sludge that has been tested or processed to meet Class A, Class AB, or Class B pathogen standards in 30 TAC Chapter 312 for beneficial use.
- 7. Bypass the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge or biosolids use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement

Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.
- 8. In accordance with the procedures described in 30 TAC §§ 35.301 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.
- 9. Changes in Discharges of Toxic Substances
 - All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. One hundred micrograms per liter (100 μ g/L);
 - ii. Two hundred micrograms per liter (200 μ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μ g/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 μ g/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

- 11. All POTWs must provide adequate notice to the Executive Director of the following:
 - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
 - c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;
 - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC § 7.302. The filing of a request by the

- permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 7.075 (relating to Administrative Penalties), 7.101 7.111 (relating to Civil Penalties), and 7.141 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

a. The permittee shall give notice to the Executive Director as soon as possible of any

planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

- The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or
- ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
- iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not

yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

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

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

- 1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
- 2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 319.29 concerning the discharge of certain hazardous metals.
- 3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
- 4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
- 5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
- 6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §

7.302(b)(6).

7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

- 8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
 - a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
- c. Permits for domestic wastewater treatment plants are granted subject to the policy of the

Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

- 9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
- 10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
- 11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel,

appurtenance, or other improvement on land used to manage industrial solid waste.

- f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;
 - iii. Date(s) of disposal;
 - iv. Identity of hauler or transporter;
 - v. Location of disposal site; and
 - vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. The disposal of sludge or biosolids by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Biosolids. This provision does not authorize the permittee to land apply biosolids on property owned, leased or under the direct control of the permittee.

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS LAND APPLICATION

A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.
- 2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
- 3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

B. Testing Requirements

1. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 9) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 9) and the Enforcement Division (MC 224).

2. Biosolids shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C. of this permit.

TABLE 1

<u>Pollutant</u>	<u>Ceiling Concentration</u> (<u>Milligrams per kilogram</u>)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	<i>7</i> 500

^{*} Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

a. For sewage sludge to be classified as Class A biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

<u>Alternative 1</u> - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information;

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion; or

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

<u>Alternative 2</u> - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC \S 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC \S 312.82(a)(2)(C)(iv-vi) for specific information; or

<u>Alternative 4</u> - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

- c. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.
- d. Three alternatives are available to demonstrate compliance with Class B biosolids criteria.

Alternative 1

- i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

<u>Alternative 2</u> - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

<u>Alternative 3</u> - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

- ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;
- iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and
- v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1-3, the following site restrictions must be met if Class B biosolids are land applied:

- i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
- Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.
- vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.
- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.
- viii. Public access to land with a low potential for public exposure shall be restricted

for 30 days after application of biosolids.

ix. Land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

- <u>Alternative 1</u> The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.
- Alternative 2 If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.
- Alternative 3 If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.
- Alternative 4 The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.
- Alternative 5 Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.
- Alternative 6 The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.
- Alternative 7 The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
- <u>Alternative 8</u> The percent solids of sewage sludge that contains unstabilized solids

generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

- i. Biosolids shall be injected below the surface of the land.
- ii. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected.
- iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10-

- i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
- ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure - annually (TCLP) Test
PCBs - annually

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of biosolids (*)

metric tons per 365-day period Monitoring Frequency

o to less than 290 Once/Year

290 to less than 1,500 Once/Quarter

1,500 to less than 15,000 Once/Two Months

15,000 or greater Once/Month

(*) The amount of bulk biosolids applied to the land (dry wt. basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal

coliforms, helminth ova, Salmonella sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge or biosolids for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE OR BIOSOLIDS FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

Table 2

	Cumulative Pollutant Loading Rate
Pollutant	(pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

	Monthly Average		
	Concentration		
<u>Pollutant</u>	(milligrams per kilogram)*		
Arsenic	41		
Cadmium	39		
Chromium	1200		
Copper	1500		
Lead	300		
Mercury	17		
Molybdenum	Report Only		
Nickel	420		
Selenium	36		
Zinc	2800		

^{*}Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B biosolids pathogen reduction requirements as defined above in Section I.B.3.

C. Management Practices

- 1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
- 2. Bulk biosolids not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.
- 3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.
- 4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:
 - a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.
 - b. A statement that application of the biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.
 - c. The annual whole sludge application rate for the biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

- 1. If bulk biosolids are applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:
 - a. The location, by street address, and specific latitude and longitude, of each land application site.
 - b. The approximate time period bulk biosolids will be applied to the site.
 - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.
- 2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the biosolids disposal practice.

E. Record Keeping Requirements

The documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a biosolids material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a

period of <u>five years</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

- 1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
- 2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).
- 3. A description of how the vector attraction reduction requirements are met.
- 4. A description of how the management practices listed above in Section II.C are being met
- 5. The following certification statement:

"I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

- 6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative <u>indefinitely</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:
 - a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
 - b. The location, by street address, and specific latitude and longitude, of each site on which biosolids are applied.
 - c. The number of acres in each site on which bulk biosolids are applied.
 - d. The date and time biosolids are applied to each site.
 - e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
 - f. The total amount of biosolids applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 9) and the Enforcement Division (MC 224).

- 1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.
- 3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
- 4. The frequency of monitoring listed in Section I.C. that applies to the permittee.
- 5. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 6. PCB concentration in sludge or biosolids in mg/kg.
- 7. Identity of hauler(s) and TCEQ transporter number.
- 8. Date(s) of transport.
- 9. Texas Commission on Environmental Quality registration number, if applicable.
- 10. Amount of sludge or biosolids disposal dry weight (lbs/acre) at each disposal site.
- 11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.
- 12. Level of pathogen reduction achieved (Class A, Class AB or Class B).
- 13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met.
- 14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.
- 15. Vector attraction reduction alternative used as listed in Section I.B.4.

- 16. Amount of sludge or biosolids transported in dry tons/year.
- 17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge or biosolids treatment activities, shall be attached to the annual reporting form.
- 18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.
 - a. The location, by street address, and specific latitude and longitude.
 - b. The number of acres in each site on which bulk biosolids are applied.
 - c. The date and time bulk biosolids are applied to each site.
 - d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk biosolids applied to each site.
 - e. The amount of biosolids (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

- A. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge or biosolids disposed in a municipal solid waste landfill.
- B. If the permittee generates sewage sludge and supplies that sewage sludge or biosolids to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge or biosolids disposal practice.
- D. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 9) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 9) and the Enforcement Division (MC 224), by September 30 of each year.

- E. Sewage sludge or biosolids shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- F. Record Keeping Requirements

The permittee shall develop the following information and shall retain the information for five years.

- 1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.
- 2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 9) and the Enforcement Division (MC 224).

- 1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 3. Annual sludge or biosolids production in dry tons/year.
- 4. Amount of sludge or biosolids disposed in a municipal solid waste landfill in dry tons/year.
- 5. Amount of sludge or biosolids transported interstate in dry tons/year.
- 6. A certification that the sewage sludge or biosolids meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- 7. Identity of hauler(s) and transporter registration number.
- 8. Owner of disposal site(s).
- 9. Location of disposal site(s).
- 10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE OR BIOSOLIDS TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge or biosolids that is transported to another wastewater treatment facility or facility that further processes sludge or biosolids. These provisions are intended to allow transport of sludge or biosolids to facilities that have been authorized to accept sludge or biosolids. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge or biosolids, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.
- 2. Sludge or biosolids may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

- 1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:
 - a. the amount of sludge or biosolids transported;
 - b. the date of transport;
 - c. the name and TCEQ permit number of the receiving facility or facilities;
 - d. the location of the receiving facility or facilities;
 - e. the name and TCEQ permit number of the facility that generated the waste; and
 - f. copy of the written agreement between the permittee and the receiving facility to accept sludge or biosolids.
- 2. For sludge or biosolids transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge or biosolids transported.
- The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 9) and the Enforcement Division (MC 224).

- 1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. the annual sludge or biosolids production;
- 3. the amount of sludge or biosolids transported;
- 4. the owner of each receiving facility;
- 5. the location of each receiving facility; and
- 6. the date(s) of disposal at each receiving facility.

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SECTION V. REQUIREMENTS FOR MARKETING AND/OR DISTRIBUTING SLUDGE AND SLUDGE DERIVED MATERIALS.

A. General Requirements

All sludge (which may contain biosolids), derived materials or materials sold or given away in bulk, bag or a container for application to the land shall meet the metal concentrations in Section II.A. Table 3, Class A pathogen requirements in 30 TAC § 312.82(a), and the vector attraction reduction requirements in 30 TAC § 312.83(b)(1) - § 312.83(b)(8).

The product of the concentration of each pollutant in the sewage sludge and the annual sludge application rate for the sewage sludge shall not cause the annual metal loading rate for the metal in Table 4 below to be exceeded. The procedure used to determine the annual whole sludge application rate is presented in § 312.49 title (relating to Appendix A - Procedure to Determine the Annual Whole Sludge Application Rate for a Sewage Sludge).

Table 4 - ANNUAL METAL LOADING RATES

<u>Pollutant</u>	Annual Metal Loading Rate ** (pounds per acre) *
Arsenic	1.8
Cadmium	1.7
Chromium	134.0
Copper	67.0
Lead	13.0
Mercury	0.76
Molybdenum	Report Only
Nickel	18.7
Selenium	4.5
Zinc	125.0

^{*} Dry weight basis ** Per 365-day period

B. Marketing and Distribution Management Practices

- 1. Sludge may be stockpiled and stored on site under semi-dry conditions for a period not to exceed 24 months.
- 2. The whole sludge application rate shall not exceed the agronomic rate for any site.
- 3. The sludge processing site location shall be selected, and the site operated in a manner to prevent public health nuisances. Where nuisance conditions exist, the operator shall take necessary action to abate such nuisances.
- 4. Either a label shall be affixed to the bag or similar enclosure in which sewage sludge is sold or given away for application to the land or an information sheet shall be provided to the person who receives sewage sludge sold or given away in a similar enclosure for application to the land. The label or information sheet shall contain the following information:

- a. the name and address of the person who prepared the sewage sludge for sale or give away in a bag or similar enclosure for application to the land;
- b. a statement that prohibits the application of the sewage sludge to the land except in accordance with the instructions on the label or information sheet;
- c. the annual whole sludge application rate for the sewage sludge that does not cause the annual metal loading rates in Table 4 to be exceeded.
- 5. If composting, the Sludge Processing Pad Area shall be protected from storm water runon and runoff. Storm water from the pad shall be routed through the headworks of the Wastewater Treatment Facility. The Sludge Processing Pad shall be constructed of concrete or Executive Director approved material meeting the following requirements:
 - a. More than 30% passing a No. 200 mesh sieve
 - b. Liquid limit greater than 30%
 - c. Plasticity index greater than 15
 - d. A minimum thickness of 2 feet
 - e. Permeability equal to or less than 1x10⁻⁷ cm/sec
 - f. Soil compaction will be 95% standard proctor at optimum moisture content

The permittee shall furnish certification by a Texas Licensed Professional Engineer that the completed lining meets the appropriate criteria above prior to utilization of the facilities. The certification shall be sent to the TCEQ Regional Office (MC Region 9) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division.

6. This permit does not authorize the composting of grease or grease trap waste. Any such authorization shall be in accordance with Commission regulations in 30 TAC Chapter 332.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) TestPCBs
- Once/Year

All metal constituents, pathogen density requirements and vector attraction reduction requirements shall be monitored at the appropriate frequency pursuant to 30 TAC § 312.46(a)(1).

D. Notification Requirements - None.

E. Record Keeping Requirements

The person who prepares bulk sewage sludge or a sewage sludge material in 30 TAC § 312.41(b)(1) or in 30 TAC § 312.41(e) shall develop the following information and shall retain the information on-site for five years.

- 1. The concentration (mg/kg) in the sludge of each pollutant listed in Section II. A. (30 TAC § 312.43(b)(3) Table 3).
- 2. A description of how the Class A pathogen reduction requirements are met.
- 3. A description of how the vector attraction reduction requirements are met.
- 4. The annual whole sludge application rate for the sewage sludge that does not cause the annual pollutant loading rates in Table 4 to be exceeded.
- 5. The following certification statement: "I certify, under penalty of law, that the Class A pathogen requirements in 30 TAC § 312.82(a) and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in § 312.83(b)(1)-(8)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 9) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year the following information:

- 1. Results of tests performed for pollutants found in 30 TAC § 312.43(b)(3) Table 3.
- 2. The frequency of monitoring listed in Section I.C. which applies to the permittee.
- 3. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 4. PCB concentration in sludge in mg/kg.
- 5. Documentation of the level of pathogen reduction achieved (Class \underline{A}).
- 6. As listed in Section I.B.3.(a), describe how the pathogen reduction requirements were met.
- 7. Vector attraction reduction alternative used as listed in Section I.B.4.
- 8. Annual sludge production in dry tons/year.
- 9. Amount of sludge land applied in dry tons/year.
- 10. The following certification statement: "I certify, under penalty of law, that the Class A pathogen requirements in 30 TAC § 312.82(a) and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in § 312.83 (b)(1)-(8)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel

properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment." The certification statement shall be attached to the annual reporting form.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

OTHER REQUIREMENTS

- 1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.
 - This Category A facility must be operated by a chief operator or an operator holding a Class A license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.
- 2. The facility is not located in the Coastal Management Program boundary.
- Chronic toxic criteria apply at the edge of the chronic mixing zone. The chronic aquatic life mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.
- 4. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
- 5. The permittee may provide effluent treated in accordance with the requirements of this permit to users only in accordance with a reuse authorization issued by the commission under 30 Texas Administrative Code (TAC) Chapter 210 and pursuant to the terms and conditions of that separate authorization.
- 6. The permittee has submitted with the application received on February 15, 2023 (in filedated June 2, 1994, and filed for Record with McLennan County on June 28, 1994) sufficient evidence of legal restrictions prohibiting residential structures within the part of the buffer zone not owned by the permittee according to 30 TAC § 309.13(e)(3). To the north, east, and northwest, the 150-foot wastewater treatment plant (WWTP) buffer zone requirement is met by ownership. The Peak Flow Attenuation Basins (PFAB; Lagoons 1 and 2) 500-foot buffer zone is met by ownership to the east and west. To the north the 500-foot buffer zone is met partially by ownership and the remaining is met by the Brazos River. To the southeast and south both the 150-foot WWTP buffer zone and the PFAB are met partially with ownership and the remaining is met with restrictive easements. See Attachment A.
- 7. The permittee is authorized to utilize anaerobic digestion of domestic fat, oil, and grease (FOG) at the Waco Metropolitan Area Regional Sewerage System TPDES Permit No. WQ0011071001 under the following conditions:
 - a. The "domestic fat, oil and grease" refers to the liquid to semi-solid wastes from restaurants and similar businesses that are direct results of cooking with edible fat, oil, and grease.
 - b. The facility will not process fat, oil, and grease from automotive, industrial or any business of such nature that are classified under 30 TAC 324, related to used oils.

- 8. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, five/week may be reduced to three/week. A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148). The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.
- 9. Facilities for the retention or storage of treated or untreated wastewater, such as constructed wetlands, ponds, and lagoons, shall be adequately lined to control seepage. The liner shall meet the requirements in 30 TAC § 217.203, Design Criteria for Natural Treatment Facilities and 30 TAC § 309.13(d), related to unsuitable site characteristics.
 - The permittee shall furnish certification by a Texas Licensed Professional Engineer that the completed lining meets these requirements prior to use of the Lagoon 2 and Lagoon 3 facilities. The certification shall be submitted to the TCEQ Regional Office (MC Region 9), Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, Water Quality Assessment Team (MC 150) and Plans and Specifications Review Team (MC 148) of the Water Quality Division. A copy of the liner certification(s) shall be available at the plant site for inspection by authorized representatives of the TCEO.
- 10. Permittee plans to modify existing Lagoon 2 to a Peak Flow Attenuation Basin and to modify Lagoon 3 by subdividing it into two cells for sludge storage. Upon modification and prior to usage, permittee shall submit certifications verifying existing Lagoons 2 and 3 liners comply with pond liner requirements in 30 TAC § 217.203 and 30 TAC 309.13(d), as specified in Other Requirement (cross over to the new modified pond liner provision). The certification shall be signed by a Texas licensed professional engineer and shall be submitted to the TCEQ Regional Office (MC Region 9), Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, Water Quality Assessment Team (MC 150) and the Plans and Specifications Review Team (MC 148) of the Water Quality Division. A copy of the liner confirmation(s) shall be available at the plant site for inspection by authorized representatives of the TCEQ.
- 11. The existing lagoons 1, 2, and 3 shall be maintained and operated in a manner that prevents unauthorized discharge to water in the state and contamination of groundwater.
- 12. Facilities for the retention of treated or untreated wastewater shall be adequately managed and lined to control seepage. At least once per month, the Permittee shall inspect the sides and bottom (if visible) of all wastewater ponds for signs of damage and leakage, and any pond leak detection systems that are in service. Leaking ponds shall be removed from service, or operated in a manner to prevent discharge, until repairs are made or replacement

ponds are constructed.

13. Pond liner certifications and all liner construction and repair documentation shall be maintained by the Permittee for the life of the facility and be made available for TCEQ personnel for inspection and review.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved publicly owned treatment works (POTW) pretreatment program, which was originally authorized for the Brazos River Authority (BRA). The pretreatment program was originally transferred from BRA to the Cities of Waco, Woodway, Bellmead, Lacy-Lakeview, and Robinson on February 26, 2004; transferred again on to the Cities of Waco, Woodway, Bellmead, Lacy-Lakeview, Robinson, and Hewitt on October 28, 2004; then transferred again to the Cities of Waco, Woodway, Bellmead, Lacy-Lakeview, Robinson, Hewitt, and Lorena on March 12, 2009; and then transferred again to solely the City of Waco on November 30, 2020.. The pretreatment program was approved on **January 25, 1986**, modified on **March 18, 1994**, on **March 6, 2019** (TBLLs), and on **November 9, 2023** (Streamlining Rule).

The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- a. Industrial user (IU) information shall be kept current according to 40 CFR §§ 403.8(f)(2)(i) and (ii) and updated at a frequency set forth in the approved pretreatment program to reflect the accurate characterization of all IUs.
- b. The frequency and nature of IU compliance monitoring activities by the permittee shall be consistent with the approved POTW pretreatment program and commensurate with the character, consistency, and volume of waste. The permittee is required to inspect and sample the effluent from each significant industrial user (SIU) at least once per year, except as specified in 40 CFR § 403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities.
- c. The permittee shall enforce and obtain remedies for IU noncompliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program.
- d. The permittee shall control through permit, order, or similar means, the contribution to the POTW by each IU to ensure compliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program. In the case of SIUs (identified as significant under 40 CFR § 403.3(v)), this control shall be achieved through individual permits or general control mechanisms, in accordance with 40 CFR § 403.8(f)(1)(iii).

Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping

- requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR § 403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;
- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
- e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR § 403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR § 403.12(e)(2).
- f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR § 403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR § 403.8(f)(2)(vi).
- g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
- h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR § 403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR § 403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR § 403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR § 403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR § 403.18.

The permittee is required to redevelop the existing technically based local limits (TBLLs) and additional components of the pretreatment program. The permittee shall submit to the TCEQ Pretreatment Team (MC148) of the Water Quality Division, within **sixty (60)** days of the issued date of this permit, a written notification that a technical redevelopment of the current TBLLs, and other components of the pretreatment program will be submitted within **twelve (12) months** of permit issuance. The permittee shall demonstrate and certify that the revised TBLLs will attain the Texas Surface Water Quality Standards [30 TAC Chapter

307] in water in the state, prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination. The POTW is required to evaluate any enforceable BMP loadings during the redevelopment of the current TBLLs. The technical redevelopment of the current TBLLs should be developed in accordance with EPA's *Local Limits Development Guidance*, July 2004, and EPA Region 6's Technically Based Local Limits Development Guidance, October 12, 1993. The TBLLs package, draft legal authority which incorporates such revisions, and additional modifications to the pretreatment program, as required by 40 CFR Part 403 [rev.10/14/05], and applicable state and local law, including Enforcement Response Plan and Standard Operating Procedures (including forms), shall be submitted within **twelve (12)** months of the issued date of this permit. This submission shall be signed and certified by the permittee [according to 40 CFR § 122.41(k)].

3. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in the Texas Surface Water Quality Standards [30 TAC Chapter 307], and 40 CFR Part 122, Appendix D, Table II at least **once per six months** and the toxic pollutants listed in 40 CFR Part 122, Appendix D, Table III at least **once per three months**. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in 40 CFR Part 122, Appendix D, Table V, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least **once per three months** on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24-hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR Part 136, as amended; as approved by the EPA through the application for alternate test procedures; or as suggested in Tables E-1 and E-2 of the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194), June 2010, as amended and adopted by the TCEQ. The effluent samples shall be analyzed to the minimum analytical level (MAL), if necessary, to determine compliance with the daily average water quality based effluent concentration from the TCEQ's Texas Toxicity Modeling Program (TEXTOX) and other applicable water quality discharge standards. Where composite samples are inappropriate due to sampling, holding time, or analytical constraints, at least four (4) grab samples shall be taken at equal intervals over a representative 24-hour period.

4. The permittee shall prepare annually a list of IUs, which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS," SNC shall be determined based upon the more stringent of either criteria established at 40 CFR § 403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **January** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

In addition, each **January** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §§ 403.12(i) [rev. 10/22/15] and (m), to the TCEO Pretreatment Team (MC148) of the Water Quality Division. The report summary shall

be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218]. The report shall contain the following information as well as the information on the tables in this section:

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
 - (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code *and* categorical determination.
 - (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [rev. 10/14/05], then the list must also identify:
 - categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR § 403.12(e)(1) [rev. 10/22/15] and (3);
 - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR § 403.3(v)(2); and
 - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR § 403.12(e)(3).
 - (3) Control mechanism status.
 - Indicate whether the IU has an effective individual or general control mechanism, and the date such control mechanism was last issued, reissued, or modified:
 - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
 - Include the type of general control mechanisms; and
 - Report all NSCIU annual evaluations performed, as applicable.
 - (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
 - Total number of inspections performed; and
 - Total number of sampling events conducted.
 - (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
 - Compliant (C) no violations during the pretreatment year reporting period;

- Non-compliant (NC) one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
- Significant Noncompliance (SNC) in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.), and the current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.
- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, Act of God, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee.
- d. The results of all influent and effluent analyses performed pursuant to Item 3 of this section.
- e. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of IUs that meet the criteria of SNC, giving the name of the newspaper and date the list was published.
- f. The daily average water quality based effluent concentrations (from the TCEQ's Texas Toxicity Modeling Program (TexTox)) necessary to attain the Texas Surface Water Quality Standards, 30 TAC Chapter 307, in water in the state.
- g. The maximum allowable headworks loading (MAHL) in pounds per day (lb/day) of the approved TBLLs or for each pollutant of concern (POC) for which the permittee has calculated a MAHL. In addition, the influent loading as a percent of the MAHL, using the annual average flow of the wastewater treatment plant in million gallons per day (MGD) during the pretreatment year reporting period, for each pollutant that has an adopted TBLL or for each POC for which the permittee has calculated a MAHL. (See Endnotes No. 2 at the end of this section for the influent loading as a percent of the MAHL equation.)
- h. The permittee may submit the updated pretreatment program annual status report information in tabular form using the example table format provided. Please attach, on a separate sheet, explanations to document the various pretreatment activities, including IU permits that have expired, BMP violations, and any sampling events that were not conducted by the permittee as required.
- i. A summary of changes to the POTW's approved pretreatment program that have not been previously reported to the Approval Authority.

Effective December 21, 2025, the permittee must submit the updated pretreatment program annual status report required by this section electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and

obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

- 5. The permittee shall provide adequate written notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the Clean Water Act, if the indirect discharger was directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Adequate notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Revised March 2022

TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List

Reporting month/ye	ar:,	to,	
TPDES Permit No.:	Permittee:	Treatment Plant: _	

PRE'	TREATN	IENT	PRO	OGRA	M ST	TATUS	REP	ORT	'UPI	DAT	ED	INDU	STRL	AL US	ERS ¹	LIST
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r Name	Code		r NR			or N)	ed by t	by		REPORTS			100			
Industrial User	SIC or NAICS Code	CIU2	$ m Y/N~or~NR^5$	IND or GEN or NR	Last Action ⁶	$rac{ ext{TBLLs or}}{ ext{TBLLs only}^7}$	New User 3 (Y	Times Inspected by the	Times Sampled	BMR	90-Day	Semi- Annual	Self- Monitoring ⁸	NSCIU Certifications	Effluent Limits	Narrative Standards

- Include all significant industrial users (SIUs), non-significant categorical industrial users (NSCIUs) as defined in 40 CFR § 403.3(v)(2), and/or middle tier categorical industrial users (MTCIUs) as defined in 40 CFR § 403.12(e)(3). Please do <u>not</u> include non-significant noncategorical IUs that are covered under best management practices (BMPs) or general control mechanisms.
- 2 Categorical determination (include 40 CFR citation and NSCIU or MTCIU status, if applicable).
- 3 Indicate whether the IU is a new user. If the answer is No or N, then indicate the expiration date of the last issued IU permit.
- The term SNC applies to a broader range of violations, such as daily maximum, long-term average, instantaneous limits, and narrative standards (which may include enforceable BMPs, narrative limits and/or operational standards). Any other violation, or group of violations, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program now includes BMP violations (40 CFR § 403.8(f)(2)(viii)(H)).
- 5 Code NR= None required (NSCIUs only); IND = individual control mechanism; GEN = general control mechanism. Include as a footnote (or on a separate page) the name of the general control mechanism used for similar groups of IUs, identify the similar types of operations and types of wastes that are the same for each general control mechanism. Any BMPs through general control mechanisms that are applied to nonsignificant IUs need to be reported separately, *e.g.* the sector type and BMP description.
- 6 Permit or NSCIU evaluations as applicable.
- According to 40 CFR § 403.12(i)(i), indicate whether the IU is subject to technically based local limits (TBLLs) that are more stringent than categorical pretreatment standards, *e.g.* where there is one end-of-pipe sampling point at a CIU, and you have determined that the TBLLs are more stringent than the categorical pretreatment standards for any pollutant at the end-of-pipe sampling point; **OR** the IU is subject only to local limits (TBLLs only), *e.g.* the IU is a non-categorical SIU subject only to TBLLs at the end-of-pipe sampling point.
- 8 For those IUs where a monitoring waiver has been granted, please add the code "W" (after either C, NC, or SNC codes) and indicate the pollutant(s) for which the waiver has been granted.

TCEQ-20218a

TPDES Pretreatment Program Annual Report Form

Revised July 2007

TPDES Pretreatment Program Annual Report Form for Industrial User Inventory Modifications

Reporting month	/year:	,,,	
TPDES Permit No:	Permittee:	Treatment Plant:	

	INDUSTI	RIAL USER II	NVENTORY MC	DIFICATIONS	
FACILITY NAME,	ADD, CHANGE,	IF DELETION:	IF ADDITIO	ANT CHANGE:	
ADDRESS AND CONTACT PERSON	(Including categorical reclassification to NSCIU or MTCIU)	DELETION: Reason For Deletion	PROCESS DESCRIPTION	POLLUTANTS (Including any sampling waiver given for each pollutant not present)	FLOW RATE 9 (In gpd) R = Regulated U = Unregulated T = Total

_	For NSCIUs	1 - 1 - 1 - 1	 1 	:c1 - + - 1		
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TCEQ-20218b TPDES Pretreatment Program Annual Report Form

Revised July 2007

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TPDES Pe	rmi	t No:			_Pe	rmit	tee:_			_Treat	mer	ıt Pla	ant:		
	rall SNC% SNC 10 based on: Effluent Violations% orting Violations% Narrative Standard Violations% Noncompliant Industrial Users - Enforcement Actions Taken														
	N	Vonc	ompli	ant In	dus	trial	Use	rs - 1	Enfo	orceme	ent A	ctio	ns T	aken	
	Number of Actions Compliance										turned or N)				
Industrial User Name	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	NOV A.O. Civil			Criminal	Other	Penalties Collected (Do not Include Surcharge)	Y or N	Date Issued	Date Due	Current Status Returned to Compliance: (Y or N)	Comments
	Pi Ro N	eport arrat ecify	ing Re ive Sta	quiren ndards rate nu	nents s ımbe	s [W]	END:	B-PS	NC]			·	Ü	rical Sta	andards) tion,

TCEQ-20218c TPDES Pretreatment Program Annual Report Form Revised July 2007

TPDES Pretreatment Program Annual Report Form for Influent and Effluent Monitoring Results¹

Reporting m	ionth/year:,	to
TPDES Permit No.:	Permittee:	Treatment Plant:

PRETREATMENT	PROGRAM :	INFL	UENT	AND	EFFL	UENT MO	ONITORI	NG RI	ESUL	ГS	
POLLUTANT	MAHL, if Applicable in lb/day			d in μg ncentra		Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in μg/L (Actual Concentration or < MAL) 4			
		Date	Date	Date	Date			Date	Date	Date	Date
METALS, CYANIDE AND I	PHENOLS										
Antimony, Total											
Arsenic, Total											
Beryllium, Total											
Cadmium, Total											
Chromium, Total											
Chromium (Hex)											
Chromium (Tri)⁵											
Copper, Total											
Lead, Total											
Mercury, Total											
Nickel, Total											
Selenium, Total											
Silver, Total											
Thallium, Total											
Zinc, Total											

PRETREATMENT	1		Infl	uent		Average	Daily	NG RESULTS Effluent Measured in μg/L				
POLLUTANT	MAHL, if Applicable in lb/day		Measured in μg/L (Actual Concentration or < MAL)			Influent % of the MAHL ²	Average Effluent Limit (µg/L) ³	(Actual Concentration or < MAL) 4				
		Date	Date	Date	Date			Date	Date	Date	Date	
Cyanide, Available ⁶												
Cyanide, Total												
Phenols, Total												
VOLATILE COMPOUNDS	1					ll.						
Acrolein												
Acrylonitrile												
Benzene												
Bromoform							See TTHM					
Carbon Tetrachloride												
Chlorobenzene												
Chlorodibromomethane							See TTHM					
Chloroethane												
2-Chloroethylvinyl Ether												
Chloroform							See TTHM					
Dichlorobromomethane							See TTHM					
1,1-Dichloroethane												
1,2-Dichloroethane												
1,1-Dichloroethylene												
1,2-Dichloropropane												

PRETREATMENT	PROGRAM :	INFL	UENT	AND	EFFL	UENT MO	ONITORI	NG RI	ESUL	ΓS	
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)			Average Influent % of the MAHL ²	Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴					
		Date	Date	Date	Date			Date	Date	Date	Date
1,3-Dichloropropylene											
Ethyl benzene											
Methyl Bromide											
Methyl Chloride											
Methylene Chloride											
1,1,2,2-Tetra-chloroethane											
Tetrachloroethylene											
Toluene											
1,2-Trans-Dichloroethylene											
1,1,1-Trichloroethane											
1,1,2-Trichloroethane											
Trichloroethylene											
Vinyl Chloride											
ACID COMPOUNDS											
2-Chlorophenol											
2,4-Dichlorophenol											
2,4-Dimethylphenol											
4,6-Dinitro-o-Cresol											
2,4-Dinitrophenol											
2-Nitrophenol											

PRETREATMENT	PROGRAM 1	INFL	UENT	AND	EFFL	LUENT MO	ONITORI	NG R	ESUL	ΓS	
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in µg/L (Actual Concentration or < MAL) 4				
		Date	Date	Date	Date			Date	Date	Date	Date
4-Nitrophenol											
P-Chloro-m-Cresol											
Pentachlorophenol											
Phenol											
2,4,6-Trichlorophenol											
BASE/NEUTRAL COMPO	UNDS								1		
Acenaphthene											
Acenaphthylene											
Anthracene											
Benzidine											
Benzo(a)Anthracene											
Benzo(a)Pyrene											
3,4-Benzofluoranthene											
Benzo(ghi)Perylene											
Benzo(k)Fluoranthene											
Bis(2- Chloroethoxy)Methane											
Bis(2-Chloroethyl)Ether											
Bis(2-Chloroisopropyl)Ether											
Bis(2-Ethylhexyl)Phthalate											
4-Bromophenyl Phenyl Ether											

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS Influent Avonage Daily Effluent													
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)				Average Influent % of the MAHL ²	Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴						
		Date	Date	Date	Date			Date	Date	Date	Date		
Butylbenzyl Phthalate													
2-Chloronaphthalene													
4-Chlorophenyl Phenyl Ether													
Chrysene													
Dibenzo(a,h)Anthracene													
1,2-Dichlorobenzene													
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
3,3-Dichlorobenzidine													
Diethyl Phthalate													
Dimethyl Phthalate													
Di-n-Butyl Phthalate													
2,4-Dinitrotoluene													
2,6-Dinitrotoluene													
Di-n-Octyl Phthalate													
1,2-Diphenyl Hydrazine													
Fluoranthene													
Fluorene													
Hexachlorobenzene													
Hexachlorobutadiene													

PRETREATMENT	PROGRAM :	INFL	UENT	AND	EFFL	UENT MO	ONITORI	NG RI	ESUL	ΓS	
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	e Measured in μg/L t (Actual Concentration				
		Date	Date	Date	Date			Date	Date	Date	Date
Hexachloro- cyclopentadiene											
Hexachloroethane											
Indeno(1,2,3-cd)pyrene											
Isophorone											
Naphthalene											
Nitrobenzene											
N-Nitrosodimethylamine											
N-Nitrosodi-n-Propylamine											
N-Nitrosodiphenylamine											
Phenanthrene											
Pyrene											
1,2,4-Trichlorobenzene											
PESTICIDES				II.					1		
Aldrin											
Alpha- hexachlorocyclohexane (BHC)											
beta-BHC											
gamma-BHC (Lindane)											
delta-BHC											
Chlordane											

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS Influent Average Daily Effluent													
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in µg/L (Actual Concentration or < MAL)				Average Influent % of the MAHL ²	Effluent Measured in μg/L (Actual Concentration or < MAL) 4						
		Date	Date	Date	Date			Date	Date	Date	Date		
4,4-DDT													
4,4-DDE													
4,4-DDD													
Dieldrin													
alpha-Endosulfan													
beta-Endosulfan													
Endosulfan Sulfate													
Endrin													
Endrin Aldehyde													
Heptachlor													
Heptachlor Epoxide													
Polychlorinated biphenols (PCBs) The sum of PCB concentrations not to exceed daily average value.													
PCB-1242							See PCBs						
PCB-1254							See PCBs						
PCB-1221							See PCBs						
PCB-1232							See PCBs						
PCB-1248							See PCBs						
PCB-1260							See PCBs						

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS														
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in µg/L (Actual Concentration or < MAL)			Average Influent % of the MAHL ²	Effluent Measured in μg/L (Actual Concentration or < MAL) 4								
		Date	Date	Date	Date			Date	Date	Date	Date			
PCB-1016							See PCBs							
Toxaphene														
ADDITIONAL TOXIC POLLUTANTS REGULATED UNDER 30 TAC CHAPTER 307														
Aluminum														
Barium														
Bis(chloromethyl)ether 7														
Carbaryl														
Chloropyrifos														
Cresols														
2,4-D														
Danitol ⁸														
Demeton														
Diazinon														
Dicofol														
Dioxin/Furans 9														
Diuron														
Epichlorohydrin ⁹														
Ethylene glycol ⁹														
Fluoride														
Guthion														

PRETREATMENT	PROGRAM 1	INFL	UENT	AND	EFFL	UENT MO	ONITORI	NG RI	ESUL	ΓS	
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in µg/L (Actual Concentration or < MAL)			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³		Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴			
		Date	Date	Date	Date			Date	Date	Date	Date
Hexachlorophene											
4,4-Isopropylidenediphenol (bisphenol A) ⁹											
Malathion											
Methoxychlor											
Methyl Ethyl Ketone											
Methyl tert-butyl-ether (MTBE) 9											
Mirex											
Nitrate-Nitrogen											
N-Nitrosodiethylamine											
N-Nitroso-di-n-Butylamine											
Nonylphenol											
Parathion											
Pentachlorobenzene											
Pyridine											
1,2-Dibromoethane											
1,2,4,5-Tetrachlorobenzene											
2,4,5-TP (Silvex)											
Tributyltin ⁹											
2,4,5-Trichlorophenol											
TTHM (Total											

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS														
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in µg/L (Actual Concentration or < MAL)				Measured in µg/L Average Influent % of the MAHI2 Li		Daily Average Effluent Limit (µg/L) ³		Efflueasure ual Cou or < M	ncentra	,		
		Date	Date	Date	Date			Date	Date	Date	Date			
Trihalomethanes)														

Endnotes:

- 1. It is advised that the permittee collect the influent and effluent samples considering flow detention time through each wastewater treatment plant (WWTP).
- 2. The MAHL of the approved TBLLs or for each pollutant of concern (POC) for which the permittee has calculated a MAHL. Only complete the column labeled "Average Influent % of the MAHL," as a percentage, for pollutants that have approved TBLLs or for each POC for which the permittee has calculated a MAHL (U.S. Environmental Protection Agency *Local Limits Development Guidance*, July 2004, EPA933-R-04-002A).

The % of the MAHL is to be calculated using the following formulas:

Equation A: $L_{INF} = (C_{POLL} \times Q_{WWTP} \times 8.34) / 1000$

Equation B: $L_\% = (L_{INF} / MAHL) \times 100$

Where:

 $L_{INF} = Current Average (Avg) influent loading in lb/day$

 C_{POLL} = Avg concentration in $\mu g/L$ of all influent samples collected during the

pretreatment year.

O_{WWTP} = Annual average flow of the WWTP in MGD, defined as the arithmetic

average of all daily flow determinations taken within the preceding 12 consecutive calendar months (or during the pretreatment year), and as described in the Definitions and Standard Permit Conditions section.

 $L_{\%} = \%$ of the MAHL

MAHL = Calculated MAHL in lb/day 8.34 = Unit conversion factor

- 3. Daily average effluent limit (metal values are for total metals) as derived by the Texas Toxicity Modeling Program (TexTox). Effluent limits as calculated are designed to be protective of the Texas Surface Water Quality Standards. The permittee shall determine and indicate which effluent limit is the most stringent between the 30 TAC Chapter 319, Subchapter B (Hazardous Metals) limit, TexTox values, or any applicable limit in the Effluent Limitations and Monitoring Requirements Section of this TPDES permit. Shaded blocks need not be filled in unless the permittee has received a permit requirement/limit for the particular parameter.
- 4. Minimum analytical levels (MALs) and analytical methods as suggested in Tables E-1 and E-2 of the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), as amended and adopted by the TCEQ. Pollutants that are not detectable above the MAL need to be reported as less than (<) the MAL numeric value.
- 5. Report result by subtracting Hexavalent Chromium from Total Chromium.
- 6. Either the method for Amenable to Chlorination or Weak-Acid Dissociable is authorized.
- 7. Hydrolyzes in water. Will not require permittee to analyze at this time.
- 8. EPA procedure not approved. Will not require permittee to analyze at this time.
- 9. Analyses are not required at this time for these pollutants unless there is reason to believe that these pollutants may be present.

TCEQ-20218d TPDES Pretreatment Program Annual Report Form

Revised February 2020

BIOMONITORING REQUIREMENTS

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

- a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.
- b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:
 - 1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.
 - 2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 23%, 31%, 41%, 55%, and 73% effluent. The critical dilution, defined as 55% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, a chemical-specific effluent limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.
- e. Testing Frequency Reduction
 - 1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.
 - 2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted

and a subsequent test demonstrates significant toxicity, the permittee shall resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

- a. Test Acceptance The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:
 - 1) a control mean survival of 80% or greater;
 - 2) a control mean number of water flea neonates per surviving adult of 15 or greater;
 - 3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;
 - a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;
 - a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;
 - a percent minimum significant difference of 47 or less for water flea reproduction; and
 - 7) a percent minimum significant difference of 30 or less for fathead minnow growth.

b. Statistical Interpretation

- 1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in Part 1.b.
- 2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b.
- The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.
- 4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

- 5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control.
- 6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.
- 7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.
- 8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

- Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:
 - a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or
 - b) use the closest downstream perennial water unaffected by the discharge.
- Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;
 - b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.
- 3) The synthetic dilution water shall consist of standard, moderately hard,

reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

- 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.
- 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.
- 5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

- 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TLP3B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter TOP3B, report the NOEC for survival.
 - 3) For the water flea, Parameter TXP3B, report the LOEC for survival.
 - 4) For the water flea, Parameter TWP3B, enter a "1" if the NOEC for reproduction is less than the critical dilution; otherwise, enter a "0."
 - 5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.
 - 6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.
 - 7) For the fathead minnow, Parameter TLP6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.
 - 9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.
 - For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
 - 11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.
 - 12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. <u>Persistent Toxicity</u>

The requirements of this Part apply only when a test demonstrates a significant effect at the critical dilution. Significant lethality and significant effect were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction in the control.

a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.

- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.
 - If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.
- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.
- d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.
- e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.

5. <u>Toxicity Reduction Evaluation</u>

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080)

- 92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
- 2) Sampling Plan The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- Quality Assurance Plan The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
- 4) Project Organization The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
 - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the

permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.
- h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

		Date Time	Date Time
Dates and Times	No. 1 FROM: _		TO:
Composites Collected	No. 2 FROM: _		TO:
	No. 3 FROM:_		TO:
Test initiated:		am/pm	date
Dilution wat	er used:	_ Receiving water	Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

		Percent effluent								
REP	0%	23%	31%	41%	55%	73%				
A										
В										
С										
D										
Е										
F										
G										
Н										
I										
J										
Survival Mean										
Total Mean										
CV%*										
PMSD										

^{*}Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)

Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

1.	Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with
	Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION	(55%).	YES	NC

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	23%	31%	41%	55%	73%
24h						
48h						
End of Test	_		_		_	

2. Fisher's Exact Test:

Is the mean survival at test end significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION	(55%):	YES	NO
-------------------	--------	-----	----

- 3. Enter percent effluent corresponding to each NOEC\LOEC below:
 - a.) NOEC survival = ______ % effluent
 - b.) LOEC survival = _____% effluent
 - c.) NOEC reproduction = ______% effluent
 - d.) LOEC reproduction = ______% effluent

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

	s and Times	No. 1	FROM: _		Time		Date TO:		
Comp	posites cted	No. 2	FROM:				TO:		
		No. 3	FROM:				TO:		
	Test initiated:				am/	pm			date
	Dilution wate	er used:	·	Recei	ving water		Synt	hetic dilutio	on water
			FATH	IEAD MI	NNOW GR	OWTH I	OATA		
	Effluent	Averag	ge Dry We	eight in rep	licate cha	ambers	Mean Dry CV%*		
	Concentrati	on	A	В	С	D	Е	Weight	
	0%								
	23%								
	31%								
	41%								
	55%								
	73%								
	PMSD								
* Coe	efficient of Varia	tion = s	standard d	leviation	x 100/mea	n			
1.	Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:								
	Is the mean d for the % effl							ontrol's dry	weight (growth)
		CRIT	ICAL DIL	UTION	(55%):	YE	ES	_NO	

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers				Mean percent survival			CV%*	
	A	В	С	D	E	24h	48h	7 day	
0%									
23%									
31%									
41%									
55%	_	_	_	-	_	-	_	_	_
73%	_	_	_	-	_	-	_	_	_

^{*} Coefficient of Variation = standard deviation x 100/mean

ncient c	of Variation = standard deviation x 100/mean						
2.	Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:						
	Is the mean survival at 7 days significantly less than the control survival for the $\%$ effluent corresponding to lethality?						
	CRITICAL DILUTION (55%): YES NO						
3.	Enter percent effluent corresponding to each NOEC\LOEC below:						
	a.) NOEC survival =% effluent						
	b.) LOEC survival =% effluent						
	c.) NOEC growth =% effluent						
	d.) LOEC growth =% effluent						

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

- a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
 - 1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
 - 2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. Required Toxicity Testing Conditions

- a. Test Acceptance The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- c. Samples and Composites
 - 1) The permittee shall collect one composite sample from Outfall 001.

- 2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.
- 5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
 - 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
 - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

4. <u>Persistent Mortality</u>

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 24 hours.

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. <u>Toxicity Reduction Evaluation</u>

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
 - 2) Sampling Plan The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the

toxicity characterization/identification/confirmation procedures and chemicalspecific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemicalspecific analyses for the identified and suspected pollutant and source of effluent toxicity;

- Quality Assurance Plan The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
- 4) Project Organization The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
 - any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or

sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism.
- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

- i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Don	Percent effluent						
	Rep	0%	6%	13%	25%	50%	100%	
24h	A							
	В							
	C							
	D							
	E							
	MEAN							

Enter percent effluent corresponding to the LC50 below	Enter	percent effluent	corresponding	to the LC50	below:
--	-------	------------------	---------------	-------------	--------

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

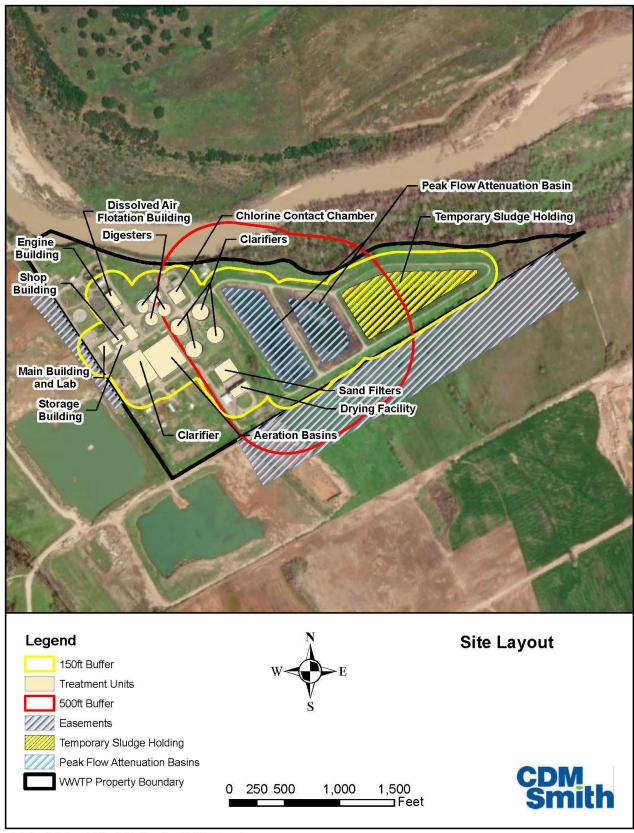
PERCENT SURVIVAL

Time	Pop		Percent effluent						
Time	Rep	0%	6%	13%	25%	50%	100%		
	A								
	В								
o 4h	С								
24h	D								
	Е								
	MEAN	_							

Enter	percent	effluent	correspo	onding to	the I	LC50 below	:
-------	---------	----------	----------	-----------	-------	------------	---

24 hour LC50 = _____% effluent

Attachment A City of Waco TPDES Permit No. WQ0011071001



FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011071001, EPA I.D. No. TX0026506, to discharge to water in the state.

Issuing Office: Texas Commission on Environmental Quality

P.O. Box 13087

Austin, Texas 78711-3087

Applicant: City of Waco

P.O. Box 2570 Waco, Texas 76702

Prepared By: Shaun M. Speck

Municipal Permits Team

Wastewater Permitting Section (MC 148)

Water Quality Division

(512) 239-4549

Date: March 20, 2025

Permit Action: Renewal

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **five years from the date of issuance**.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 45.0 million gallons per day (MGD). The existing wastewater treatment facility serves the Cities of Waco, Bellmead, Hewitt, Lacy-Lakeview, Robinson, McGregor, and Woodway.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 1147 Treatment Plant Road, in McLennan County, Texas 76706.

Outfall Location:

Outfall Number	Latitude	Longitude	
001	31.519478 N	97.064603 W	

The treated effluent is discharged directly to Brazos River Above Navasota River in Segment No. 1242 of the Brazos River Basin. The designated uses for Segment No. 1242 are primary contact recreation, public water supply, and high aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The City of Waco Central Wastewater Treatment Facility (WWTF) is an activated sludge process plant operated in the conventional mode. Treatment units include bar screens, four primary clarifiers, grit removal chambers, five aeration basins, five anoxic basins, four secondary clarifiers, a chlorine contact chamber, a dechlorination chamber, six sand filters, a solids sedimentation tank, two gravity thickeners, a rotating drum thickener, four anaerobic sludge digesters, a belt filter press, a sludge dryer, a sludge pelletizer, and a grit and grease removal system, and sludge mixing tank for transported septage. The facility is in operation.

The permittee is authorized to distribute and market Class A sludge in accordance with Section V of the Sludge Provisions or transport and dispose of the sludge at the City of Waco Landfill, TCEQ permit No. 948A. The permittee's authorization to dispose of sewage sludge on-site in the sewage sludge surface disposal lagoons (Lagoons 1, 2, and 3), as authorized in Section V of the Sludge Provisions, is continued in the draft permit; although, the permittee no longer disposes sewage sludge on-site in Lagoons 1 and 2. Lagoon 3 will be converted to a temporary sludge lagoon so that sludge can be stored temporarily when the sludge dryer is unavailable. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The City of Waco Central WWTF receives significant industrial wastewater contributions.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period November 2022 through November 2024. The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day carbonaceous biochemical oxygen demand (CBOD $_5$), total suspended solids (TSS), and ammonia nitrogen (NH $_3$ -N). The average of Daily Average value for *Escherichia coli* (*E. coli*) in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

<u>Parameter</u>	Average of Daily Avg
Flow, MGD	20
CBOD ₅ , mg/l	2.1
TSS, mg/l	2.3
NH ₃ -N, mg/l	0.18
E. coli CFU or MPN per 100 ml	1

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 45.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 57,800 gallons per minute .

<u>Parameter</u>	<u>30-Da</u>	<u>y Average</u>	<u>7-Day</u>	<u>Daily</u>
			<u>Average</u>	<u>Maximum</u>
	<u>mg/l</u>	<u>lbs/day</u>	<u>mg/l</u>	<u>mg/l</u>
CBOD_5	10	3,753	15	25
TSS	15	5,630	25	40
NH_3 - N	3	1,126	6	10
DO (minimum)	6.0	N/A	N/A	N/A
E. coli, CFU or MPN	126	N/A	N/A	399
per 100 ml				

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

<u>Parameter</u>	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	One/day
TSS	One/day
NH_3 -N	One/day
DO	One/day
E. coli	Five/week

B. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. The permittee is authorized to distribute and market Class A sludge in accordance with Section V of the Sludge Provisions or transport and dispose of the sludge at the City of Waco Landfill, TCEQ permit No. 948A. The permittee's authorization to dispose of sewage sludge on-site in the sewage sludge surface disposal lagoons (Lagoons 1, 2, and 3), as authorized in Section V of the Sludge Provisions, is continued in the draft permit; although, the permittee no longer disposes sewage sludge onsite in Lagoons 1 and 2. Lagoon 3 will be converted to a temporary sludge lagoon so that sludge can be stored temporarily when the sludge dryer is unavailable. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

C. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 305 which references 40 CFR Part 403, General Pretreatment Regulations for Existing and New Sources of Pollution [rev. Federal Register/Vol. 70/No. 198/Friday, October 14, 2005/Rules and Regulations, pages 60134-60798]. The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on January 25, 1986, modified on, March 18, 1994, March 6, 2019 (TBLLs only), and November 9, 2023 (Streamlining Rule). The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of January in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Effective December 21, 2025, the permittee must submit the pretreatment program annual status report electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

The permittee is under a continuing duty to: establish and enforce specific local limits to implement the provisions of 40 CFR § 403.5, to develop and enforce local limits as necessary, and to modify the approved POTW pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee is required to effectively enforce such limits and to modify their pretreatment program, including the Legal Authority, Enforcement Response Plan, and/or Standard Operating Procedures, if required by the Executive Director to reflect changing conditions at the POTW.

The permittee is required to redevelop the existing technically based local limits (TBLLs) and modify additional components of the pretreatment program as applicable. The permittee shall submit to the TCEQ Pretreatment Team (MC148) of the Water Quality Division, within sixty (60) days of the issued date of this permit, a written notification that a technical redevelopment of the current TBLLs and other components of the pretreatment program will be submitted within twelve (12) months of permit issuance. The permittee shall demonstrate and certify that the revised TBLLs will attain the Texas Surface Water Quality Standards [30 TAC Chapter 307] in water in the state, prevent pass through of pollutants and inhibition of or interference with the treatment facility, prevent worker health and safety problems, and prevent sludge contamination. If

applicable, the POTW is required to evaluate the enforceable best management practices (BMP) loadings during the redevelopment of the current TBLLs. The permittee shall submit a TBLLs package, draft legal authority, which incorporates such revisions, and any additional modifications to the pretreatment program that reflect changing conditions at the POTW. In order to ensure that the permittee has a program to assure compliance with such pretreatment standards and requirements, the permittee will include the Legal Authority, Enforcement Response Plan, Standard Operating Procedures (including forms). This package shall be submitted within twelve (12) months of the issued date of this permit.

D. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

- (1) The draft permit includes chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 23%, 31%, 41%, 55%, and 73%. The low-flow effluent concentration (critical dilution) is defined as 55% effluent. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.
 - (a) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
 - (b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
- (2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months.
 - (a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).
 - (b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

E. SUMMARY OF CHANGES FROM APPLICATION

None.

F. SUMMARY OF CHANGES FROM EXISTING PERMIT

The facility name in the existing permit has been updated from Waco Metropolitan Area Regional Sewerage System Wastewater Treatment Facility WWTF to the City of Waco Central WWTF in the draft permit. For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

The draft permit includes all updates based on the 30 TAC § 312 rule change effective April 23, 2020.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated in Title 40 of the CFR require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b).

A mixing zone evaluation for pH is included within Attachment A of this Fact Sheet. The evaluation has demonstrated that the technology based pH limitations of 6.0 to 9.0 standard units will ensure compliance with the TSWQS pH criterion at the edge of the chronic mixing zone. See Attachment A of this Fact Sheet.

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged directly to Brazos River Above Navasota River in Segment No. 1242 of the Brazos River Basin. The designated uses for Segment No. 1242 are primary contact recreation, public water supply, and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and/or revisions.

The Houston Toad (*Bufo houstonensis* Sanders), an endangered aquatic-dependent species of critical concern, occurs within the Segment No. 1242's watershed as well as the 12070101 United States Geological Survey hydrologic unit code. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998, October 21,1998 update). To make this determination for TPDES permits, TCEQ and EPA only consider aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. Species distribution information for the Segment No. 1242 watershed is provided by the United States Fish and Wildlife Service and documents the toad's presence solely in the vicinity of Sweet Gum Branch

in Burleson County, which is in a different portion of the watershed from the facility associated with this permit action. Based upon this information, it is determined that the facility's discharge is not expected to impact the Houston Toad. The permit does not require EPA review with respect to the presence of endangered or threatened species

Segment No. 1242 is not currently listed on the state's inventory of impaired and threatened waters (the 2022 CWA § 303(d) list).

The pollutant analysis of treated effluent provided by the permittee in the application indicated 600 mg/l total dissolved solids (TDS), 73.4 mg/l sulfate, and 130 mg/l chloride present in the effluent. The segment criteria for Segment No. 1242 are 1000 mg/l for TDS, 200 mg/l for sulfate, and 350 mg/l for chlorides. Based on dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment B of this Fact Sheet.

The effluent limitations and conditions in the draft permit comply with EPA-approved portions of the 2018 Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10, effective March 1, 2018; 2014 TSWQS, effective March 6, 2014; 2010 TSWQS, effective July 22, 2010; and 2000 TSWQS, effective July 26, 2000.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Five-Day Biochemical Oxygen Demand or Five-Day Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The effluent limitations in the draft permit have been reviewed for consistency with the WQMP. The proposed effluent limitations are contained in the approved WQMP.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

The facility is not located in the Coastal Management Program boundary.

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "*Procedures to Implement the Texas*"

Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

Water quality-based effluent limitations are calculated from freshwater aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters Brazos River Above Navasota River. The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters Brazos River Above Navasota River.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 45.0 MGD and the 7-day, 2-year (7Q2) flow of 54.84 cfs for Brazos River Above Navasota River. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 45.0 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %: 83.55% Chronic Effluent %: 55.94%

Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level.

The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent

samples collected (12).

Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "*Procedures to Implement the Texas Surface Water Quality Standards*, June 2010." The segment values are 194 mg/l for hardness (as calcium carbonate), 174 mg/l chlorides, 7.7 standard units for pH, and 12mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation. See Attachment C of this Fact Sheet.

(b) PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does not exceed 70% of the calculated daily average water quality-based effluent limitations for aquatic life protection.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue and drinking water found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation and drinking water criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 45.0 MGD and the harmonic mean flow of 142.49 cfs for Brazos River Above Navasota River. The following critical effluent percentage is being used:

Human Health Effluent %: 32.82%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation. See Attachment C of this Fact Sheet.

(b) PERMIT ACTION

Reported analytical data does not exceed 70% of the calculated daily average water quality-based effluent limitation for human health protection.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1242, which receives the discharge from this facility, is designated as a public water supply. The screening procedure used to calculate water quality-based effluent limitations and determine the need for effluent limitations or monitoring requirements is identical to the procedure outlined in the aquatic organism bioaccumulation section of this fact sheet. Criteria used in the calculation of water quality-based effluent limitations for the protection of a drinking water supply are outlined in Table 2 (Water and Fish) of the Texas Surface Water Quality Standards (30 TAC Chapter 307). These criteria are developed from either drinking water maximum contaminant level (MCL) criteria outlined in 30 TAC Chapter 290 or from the combined human health effects of exposure to consumption of fish tissue and ingestion of drinking water.

(b) PERMIT ACTION

Criteria in the "Water and Fish" section of Table 2 do not distinguish if the criteria is based on a drinking water standard or the combined effects of ingestion of drinking water and fish tissue. Effluent limitations or monitoring requirements to protect the drinking water supply (and other human health effects) were previously calculated and outlined in the aquatic organism bioaccumulation criteria section of this fact sheet.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

The existing permit includes chronic freshwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed eight chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures).

A reasonable potential determination was performed in accordance with 40 CFR § 122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

With zero failures, a determination of no RP was made. WET limits are not required, and the permittee may be eligible for the testing frequency reduction after one year of quarterly testing.

(b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

(6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)

(a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant mortality (i.e., zero failures).

(b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Shaun M. Speck at (512) 239-4549.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WO0011071001 issued on October 24, 2024.

B. APPLICATION

Application received on July 23, 2024.

C. MEMORANDA

Interoffice Memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice Memorandum from the Pretreatment Team of the TCEQ Water Quality Division.

D. MISCELLANEOUS

Federal Clean Water Act § 402; Texas Water Code § 26.027; 30 TAC Chapters 30, 305, 309, 312, and 319; Commission policies; and U.S. Environmental Protection Agency guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by the U.S. Environmental Protection Agency, and the IP, January 2003, for portions of the 2010 IP not approved by the U.S. Environmental Protection Agency.

Texas 2022 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, June 1, 2022; approved by the U.S. Environmental Protection Agency on July 7, 2022.

Texas Natural Resource Conservation Commission, Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

Attachment A: pH Screening

Calculation of pH of a mixture of two flows. Based on the procedure in EPA's DESCON program (EPA, 1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington D.C.)

City of Waco

11071-001 Outfall 001, Segment 1242

INPUT			Source Data:	
1. DILUTION FACTOR AT MIXING ZONE BOUNDARY	1.83	1.83	effluent % at edge of chronic mixing zone:	54. 78
RECEIVING WATER CHARACTERISTICS			69.6 7Q2 57. MGD in cfs: 25 flow: 48	
RECEIVING WATER CHARACTERISTICS			Assumed, various	
2. Temperature (deg C):	25.00	32.00	temperatures tested. Seg 1242 pH	
3. pH:	7.70	7.70	(IPs): 7.7 alkalinity from the 2022	
4. Alkalinity (mg CaCO3/L):	110.00	110.00	draft IPs.	
EFFLUENT CHARACTERISTICS				
5 7 (1 0)	22.22	20.00	temperature	
5. Temperature (deg C):	20.00	30.00	range	
6. pH:	6.00	9.00	permit range	

7. Alkalinity (mg CaCO3/L): 20.00 * 200.00 187.67 **OUTPUT** 1. IONIZATION CONSTANTS Upstream/Background pKa: 6.35 6.32 Effluent pKa: 6.38 6.32 2. IONIZATION FRACTIONS Upstream/Background Ionization Fraction: 0.96 0.96 Effluent Ionization Fraction: 0.29 1.00 3. TOTAL INORGANIC CARBON Upstream/Background Total Inorganic Carbon (mg CaCO3/L): 114.91 114.54 Effluent Total Inorganic Carbon (mg CaCO3/L): 68.20 200.42 4. CONDITIONS AT MIXING ZONE **BOUNDARY** 22.26 Temperature (deg C): 30.90 Alkalinity (mg CaCO3/L): 60.70 159.30 Total Inorganic Carbon (mg CaCO3/L): 89.32 161.58 pKa: 6.37 6.32 Segment 1242 pH pH at Mixing Zone Boundary: 8.16 criteria: 6.69 6.5 to 9.0

Effluent analysis

^{*} Assume minimal total alkalinity at low effluent pH based on carbonate equilibrium chemistry of natural and treated waters

Attachment B: Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:

Permit Number, Outfall:

Segment Number:

City of Waco

11071-001, 001

1242

Enter values needed for screening:			Data Source (edit if different)
QE - Average effluent flow	45	MGD	Permit application
QS - Perennial stream harmonic mean flow	149.56	cfs	Critical conditions memo (2023)
QE - Average effluent flow	69.6254	cfs	Calculated
CA - TDS - ambient segment concentration	693	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment			
concentration	179	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	103	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	1000	mg/L	2022 TSWQS, Appendix A
CC - chloride - segment criterion	350	mg/L	2022 TSWQS, Appendix A
CC - sulfate - segment criterion	200	mg/L	2022 TSWQS, Appendix A
CE - TDS - average effluent concentration	600	mg/L	Permit application
CE - chloride - average effluent concentration	130	mg/L	Permit application
CE - sulfate - average effluent concentration	73.4	mg/L	Permit application

Permit Limit Calculations

TDS

כטו					
	WLA= [CC(QE+QS) -				
Calculate the WLA	(QS)(CA)]/Q	1659.46			
Calculate the LTA	LTA = WLA '	* 0.93		1543.29	
Calculate the daily average	Daily Avg. =	LTA * 1.4	47	2268.64	
Calculate the daily maximum	Daily Max. = LTA * 3.11				
Calculate 70% of the daily average	70% of Daily Avg. =				
Calculate 85% of the daily average	85% of Daily	/ Avg. =		1928.35	
No permit limitations needed if:	600 ≤ 1588.05				
Reporting needed if:	600 > 1588.05				1928.35
Permit limits may be needed if:	600	>	1928.35		

No permit limitations needed for TDS

Chloride

	WLA= [CC(QE+QS) -				
Calculate the WLA	(QS)(CA)]/QE				
Calculate the LTA	LTA = WLA *	* 0.93		667.11	
Calculate the daily average	Daily Avg. =	LTA * 1.4	47	980.65	
Calculate the daily maximum	Daily Max. = LTA * 3.11				
Calculate 70% of the daily average	70% of Daily Avg. =				
Calculate 85% of the daily average	85% of Daily	/ Avg. =		833.55	
No permit limitations needed if:	130 ≤ 686.45				
Reporting needed if:	130 > 686.45			but ≤	833.55
Permit limits may be needed if:	130	>	833.55		

No permit limitations needed for chloride

Sulfate

	WLA= [CC(QE+QS) -				
Calculate the WLA	(QS)(CA)]/QE				
Calculate the LTA	LTA = WLA *	* 0.93		379.78	
Calculate the daily average	Daily Avg. =	LTA * 1.4	7	558.27	
Calculate the daily maximum	Daily Max. = LTA * 3.11				
Calculate 70% of the daily average	70% of Daily Avg. =				
Calculate 85% of the daily average	85% of Daily Avg. =			474.53	
No permit limitations needed if:	73.4	≤	390.79		
Reporting needed if:	73.4 > 390.79			but ≤	474.53
Permit limits may be needed if:	73.4	>	474.53		

No permit limitations needed for sulfate

Attachment C: Calculated Water Quality Based Effluent Limitations

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

The water quality-based effluent limitations developed below are calculated using:

 ${\sf Table~1,2014~Texas~Surface~Water~Quality~Standards~(30~TAC~307)~for~Freshwater~Aquatic~Life}$ Table 2, 2018 Texas Surface Water Quality Standards for Human Health "Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	City of Waco
TPDES Permit No.:	11071001
Outfall No.:	001
Prepared by:	Shaun Speck
Date:	March 20, 2025

DISCHARGE INFORMATION	
Receiving Waterbody:	Brazos River Above Navasota River
Segment No.:	1242
TSS (mg/L):	12
pH (Standard Units):	7.7
Hardness (mg/L as CaCO₃):	194
Chloride (mg/L):	174
Effluent Flow for Aquatic Life (MGD):	45
Critical Low Flow [7Q2] (cfs):	54.84
% Effluent for Chronic Aquatic Life (Mixing	
Zone):	55.94
% Effluent for Acute Aquatic Life (ZID):	83.55
Effluent Flow for Human Health (MGD):	45
Harmonic Mean Flow (cfs):	142.49
% Effluent for Human Health:	32.82
Human Health Criterion (select: PWS, FISH,	
or INC)	PWS

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

	Intercep	Slope	Partition Coefficie	Dissolve d Fraction		Water Effect Ratio	
Stream/River Metal	t (b)	(m)	nt (Kp)	(Cd/Ct)	Source	(WER)	Source
					Assume		Assum
Aluminum	N/A	N/A	N/A	1.00	d	1.00	ed
			78018.5				Assum
Arsenic	5.68	-0.73	2	0.516		1.00	ed
			240173.				Assum
Cadmium	6.60	-1.13	56	0.258		1.00	ed
			328368.				Assum
Chromium (total)	6.52	-0.93	46	0.202		1.00	ed
			328368.				Assum
Chromium (trivalent)	6.52	-0.93	46	0.202		1.00	ed
					Assume		Assum
Chromium (hexavalent)	N/A	N/A	N/A	1.00	d	1.00	ed
			166496.				Assum
Copper	6.02	-0.74	80	0.334		1.00	ed
			386060.				Assum
Lead	6.45	-0.80	17	0.178		1.00	ed
					Assume		Assum
Mercury	N/A	N/A	N/A	1.00	d	1.00	ed

			118813.				Assum
Nickel	5.69	-0.57	75	0.412		1.00	ed
					Assume		Assum
Selenium	N/A	N/A	N/A	1.00	d	1.00	ed
			185542.				Assum
Silver	6.38	-1.03	46	0.310		1.00	ed
			221092.				Assum
Zinc	6.10	-0.70	05	0.274		1.00	ed

AQUATIC LIFE CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

	FW	FW						
	Acute	Chronic					Daily	Daily
	Criterio	Criterio	WLAa	WLAc	LTAa	LTAc	Avg.	Max.
Parameter	n (μg/L)	n (μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
Aldrin	3.0	N/A	3.59	N/A	2.06	N/A	3.02	6.39
Aluminum	991	N/A	1186	N/A	680	N/A	999	2113
Arsenic	340	150	788	519	451	400	587	1243
Cadmium	16.3	0.390	75.9	2.70	43.5	2.08	3.06	6.47
Carbaryl	2.0	N/A	2.39	N/A	1.37	N/A	0.0080	4.26
Chlordane	2.4	0.004	2.87	0.00715	1.65	0.00551	9	0.0171
Chlorpyrifos	0.083	0.041	0.0993	0.0733	0.0569	0.0564	0.0829	0.175
Chromium (trivalent)	980	128	5797	1126	3322	867	1274	2697
Chromium (hexavalent)	15.7	10.6	18.8	18.9	10.8	14.6	15.8	33.4
Copper	26.5	16.7	95.1	89.4	54.5	68.8	80.1	169
Cyanide (free)	45.8	10.7	54.8	19.1	31.4	14.7	21.6	45.8
							0.0020	0.0042
4,4'-DDT	1.1	0.001	1.32	0.00179	0.754	0.00138	2	8
Demeton	N/A	0.1	N/A	0.179	N/A	0.138	0.202	0.428
Diazinon	0.17	0.17	0.203	0.304	0.117	0.234	0.171	0.362
Dicofol [Kelthane]	59.3	19.8	71.0	35.4	40.7	27.3	40.0	84.7
Dieldrin	0.24	0.002	0.287	0.00358	0.165	0.00275	0.0040 4	0.0085 6
Diuron	210	70	251	125	144	96.4	141	299
Endosulfan I (alpha)	0.22	0.056	0.263	0.100	0.151	0.0771	0.113	0.239
Endosulfan II (beta)	0.22	0.056	0.263	0.100	0.151	0.0771	0.113	0.239
Endosulfan sulfate	0.22	0.056	0.263	0.100	0.151	0.0771	0.113	0.239
	-						0.0040	0.0085
Endrin	0.086	0.002	0.103	0.00358	0.0590	0.00275	4	6
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0179	N/A	0.0138	0.0202	0.0428
Usakadda	0.53	0.004	0.622	0.00745	0.257	0.00554	0.0080	0.0474
Heptachlor	0.52	0.004	0.622	0.00715	0.357	0.00551	9	0.0171
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.08	1.35	0.143	0.772	0.110	0.161	0.342
Lead	132	5.14	889	51.7	509	39.8	58.5	123
Malathion	N/A	0.01	N/A	0.0179	N/A	0.0138	0.0202	0.0428
Methowahler	2.4 N/A	1.3	2.87 N/A	2.32	1.65	1.79	2.41	5.11
Methoxychlor	IN/A	0.03	N/A	0.0536	N/A	0.0413	0.0607	0.128
Mirex	N/A	0.001	N/A	0.00179	N/A	0.00138	2	8
Nickel	820	91.1	2382	395	1365	304	447	946
Nonylphenol	28	6.6	33.5	11.8	19.2	9.08	13.3	28.2
Parathion (ethyl)	0.065	0.013	0.0778	0.0232	0.0446	0.0179	0.0263	0.0556
Pentachlorophenol	17.6	13.5	21.1	24.2	12.1	18.6	17.7	37.5
Phenanthrene	30	30	35.9	53.6	20.6	41.3	30.2	63.9
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.39	0.0250	1.37	0.0193	0.0283	0.0599
Selenium	20	5	23.9	8.94	13.7	6.88	10.1	21.4
Silver	0.8	N/A	34.4	N/A	19.7	N/A	28.9	61.3
	•							

				0.00035		0.00027	0.0004	0.0008
Toxaphene	0.78	0.0002	0.934	8	0.535	5	04	56
Tributyltin [TBT]	0.13	0.024	0.156	0.0429	0.0892	0.0330	0.0485	0.102
2,4,5 Trichlorophenol	136	64	163	114	93.3	88.1	129	273
Zinc	205	207	898	1353	515	1042	756	1600

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

	Water	Fish	Incident				
	and Fish	Only	al Fish	14/1 4/		Daily	Daily
Parameter	Criterio n (μg/L)	Criterio n (μg/L)	Criterion (μg/L)	WLAh (μg/L)	LTAh (μg/L)	Avg. (μg/L)	Max. (μg/L)
Acrylonitrile	1.0	115	1150	3.05	2.83	4.16	8.81
Actylotticite	1.146E-	1.147E-	1.147E-	0.00003	0.00003	0.00004	0.0003
Aldrin	05	05	04	49	25	77	00
Anthracene	1109	1317	13170	3379	3142	4618	977
Antimony	6	1071	10710	18.3	17.0	24.9	52.8
Arsenic	10	N/A	N/A	59.0	54.9	80.6	170
Barium	2000	N/A	N/A	6093	5667	8329	1762
Benzene	5	581	5810	15.2	14.2	20.8	44.
Benzidine	0.0015	0.107	1.07	0.00457	0.00425	0.00624	0.013
Benzo(a)anthracene	0.024	0.025	0.25	0.0731	0.0680	0.0999	0.21
Benzo(a)pyrene	0.0025	0.0025	0.025	0.00762	0.00708	0.0104	0.022
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.00731	0.00680	0.00999	0.021
Bis(2-chloroethyl)ether	0.60	42.83	428.3	1.83	1.70	2.49	5.2
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)							
phthalate]	6	7.55	75.5	18.3	17.0	24.9	52.
Bromodichloromethane							
[Dichlorobromomethane]	10.2	275	2750	31.1	28.9	42.4	89.
Bromoform [Tribromomethane]	66.9	1060	10600	204	190	278	58
Cadmium	5	N/A	N/A	59.1	55.0	80.8	17
Carbon Tetrachloride	4.5	46	460	13.7	12.7	18.7	39.
Chlordane	0.0025	0.0025	0.025	0.00762	0.00708	0.0104	0.022
Chlorobenzene	100	2737	27370	305	283	416	88
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	22.8	21.2	31.2	66.
Chloroform [Trichloromethane]	7.5	7697	76970	213	198	291	61
Chromium (hexavalent)	62	502	5020	189	176	258	54
	2.45	2.52	25.2	7.46	6.94	10.2	21.
Chrysene Cresols [Methylphenols]	1041	9301	93010	3171	2949	4335	917
Cyanide (free)	200	N/A	93010 N/A	609	567	832	176
4,4'-DDD	0.002	0.002	0.02	0.00609	0.00567	0.00832	0.017
4,4 -000	0.002	0.002	0.02	0.00039	0.00367	0.00054	0.017
4,4'-DDE	0.00013	0.00013	0.0013	6	8	1	0.001
							0.003
4,4'-DDT	0.0004	0.0004	0.004	0.00122	0.00113	0.00166	
2,4'-D	70	N/A	N/A	213	198	291	61
Danitol [Fenpropathrin]	262	473	4730	798	742	1091	230
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	0.518	0.482	0.708	1.4
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	981	912	1341	283
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	1828	1700	2498	528
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	228	212	312	66
3,3'-Dichlorobenzidine	0.79	2.24	22.4	2.41	2.24	3.29	6.9
1,2-Dichloroethane	5	364	3640	15.2	14.2	20.8	44.
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	21.3	19.8	29.1	61.
Dichloromethane [Methylene Chloride]	5	13333	133330	15.2	14.2	20.8	44.
1,2-Dichloropropane	5	259	2590	15.2	14.2	20.8	44.

1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	8.53	7.93	11.6	24.6
Dicofol [Kelthane]	0.30	0.30	3	0.914	0.850	1.24	2.64
				0.00006	0.00005	0.00008	0.0001
Dieldrin	2.0E-05	2.0E-05	2.0E-04	09	67	32	76
2,4-Dimethylphenol	444	8436	84360	1353	1258	1849	3912
Di-n-Butyl Phthalate	88.9	92.4	924	271	252	370	783
District France [TCDD For industrial	7.80E-	7.97E-	7.075.07	2.38E-	2.21E-	3.24E-	6.87E-
Dioxins/Furans [TCDD Equivalents]	08	08	7.97E-07	07	07	07	07
Endrin	0.02	0.02	0.2	0.0609	0.0567	0.0832	0.176
Epichlorohydrin	53.5	2013	20130	163	152	222	471
Ethylbenzene	700	1867 1.68E+0	18670	2133	1983	2915	6168
Ethylene Glycol	46744	1.68E+0 7	1.68E+0 8	142407	132439	194685	411884
Fluoride	4000	N/A	N/A	12186	11333	16659	35245
Hadriac	4000	МА	14/74	0.00024	0.00022	0.00033	0.0007
Heptachlor	8.0E-05	0.0001	0.001	4	7	3	04
•				0.00088	0.00082		0.0025
Heptachlor Epoxide	0.00029	0.00029	0.0029	3	2	0.00120	5
							0.0059
Hexachlorobenzene	0.00068	0.00068	0.0068	0.00207	0.00193	0.00283	9
Hexachlorobutadiene	0.21	0.22	2.2	0.640	0.595	0.874	1.85
Hexachlorocyclohexane (alpha)	0.0078	0.0084	0.084	0.0238	0.0221	0.0324	0.0687
Hexachlorocyclohexane (beta)	0.15	0.26	2.6	0.457	0.425	0.624	1.32
Hexachlorocyclohexane (gamma) [Lindane]	0.2	0.341	3.41	0.609	0.567	0.832	1.76
Hexachlorocyclopentadiene	10.7	11.6	116	32.6	30.3	44.5	94.2
Hexachloroethane	1.84	2.33	23.3	5.61	5.21	7.66	16.2
Hexachlorophene	2.05	2.90	29	6.25	5.81	8.53	18.0
4,4'-Isopropylidenediphenol	1092	15982	159820	3327	3094	4548	9622
Lead	1.15	3.83	38.3	19.7	18.4	26.9	57.0
Mercury	0.0122	0.0122	0.122	0.0372	0.0346	0.0508	0.107
Methoxychlor	2.92	3.0	30	8.90	8.27	12.1	25.7
		9.92E+0	9.92E+0				
Methyl Ethyl Ketone	13865	5	6	42240	39283	57746	122171
Methyl tert-butyl ether [MTBE]	15	10482	104820	45.7	42.5	62.4	132
Nickel	332	1140	11400	2454	2282	3354	7096
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	30465	28333	41649	88114
Nitrobenzene	45.7	1873	18730	139	129	190	402
N-Nitrosodiethylamine	0.0037	2.1	21	0.0113	0.0105	0.0154	0.0326
N-Nitroso-di- <i>n</i> -Butylamine	0.119	4.2	42	0.363	0.337	0.495	1.04
Pentachlorobenzene	0.348	0.355	3.55	1.06	0.986	1.44	3.06
Pentachlorophenol	0.22	0.29	2.9	0.670	0.623	0.916	1.93
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.00195	0.00181	0.00266	0.0056
<u> </u>							202
Pyridine	23 50	947	9470	70.1	65.2	95.7	
Selenium		N/A	N/A	152	142	208	440
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	0.701	0.652	0.957	2.02
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	5.00	4.65	6.83	14.4
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	15.2	14.2	20.8	44.0
Thallium	0.12	0.23	2.3	0.366	0.340	0.499	1.05
Toluene	1000	N/A	N/A	3047	2833	4164	8811
Toxaphene	0.011	0.011	0.11	0.0335	0.0312	0.0458	0.0969
2,4,5-TP [Silvex]	50	369	3690	152	142	208	440
1,1,1-Trichloroethane	200	784354	7843540	609	567	832	1762
1,1,2-Trichloroethane	5	166	1660	15.2	14.2	20.8	44.0
Trichloroethylene [Trichloroethene]	5	71.9	719	15.2	14.2	20.8	44.0
2,4,5-Trichlorophenol	1039	1867	18670	3165	2944	4327	9155
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	244	227	333	704

Vinyl Chloride 0.23 16.5 165 0.701 0.652 0.957 2.02

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

	70% of Daily	85% of Daily
Aquatic Life	Avg.	Avg.
Parameter	(μg/L)	(μg/L)
Aldrin	2.11	2.57
Aluminum	699	849
Arsenic	411	499
Cadmium	2.14	2.60
Carbaryl	1.41	1.71
Chlordane	0.00566	0.00687
Chlorpyrifos	0.0580	0.0705
Chromium (trivalent)	892	1083
Chromium (hexavalent)	11.0	13.4
Copper	56.1	68.1
Cyanide (free)	15.1	18.4
4,4'-DDT	0.00141	0.00171
Demeton	0.141	0.171
Diazinon	0.119	0.145
Dicofol [Kelthane]	28.0	34.0
Dieldrin	0.00283	0.00343
Diuron	99.1	120
Endosulfan I (alpha)	0.0793	0.0963
Endosulfan II (beta)	0.0793	0.0963
Endosulfan sulfate	0.0793	0.0963
Endrin	0.00283	0.00343
Guthion [Azinphos Methyl]	0.0141	0.0171
Heptachlor	0.00566	0.00687
Hexachlorocyclohexane (gamma) [Lindane]	0.113	0.137
Lead	40.9	49.7
Malathion	0.0141	0.0171
Mercury	1.69	2.05
Methoxychlor	0.0424	0.0515
Mirex	0.00141	0.00171
Nickel	313	380
Nonylphenol	9.34	11.3
Parathion (ethyl)	0.0184	0.0223
Pentachlorophenol	12.4	15.1
Phenanthrene	21.1	25.7
Polychlorinated Biphenyls [PCBs]	0.0198	0.0240
Selenium	7.08	8.59
Silver	20.2	24.6
	0.00028	0.00034
Toxaphene	3	3
Tributyltin [TBT]	0.0339	0.0412
2,4,5 Trichlorophenol	90.6	110
Zinc	529	643
	70% of	85% of
Human Health	Daily Ava	Daily Avg.
Parameter	Avg.	Avg.

	70% of Daily	85% of Daily
Human Health	Avg.	Avg.
Parameter	(μg/L)	(μg/L)

Acrylonitrile	2.91	3.54
	0.00003	0.00004
Aldrin	34	05
Anthracene	3233	3926
Antimony	17.4	21.2
Arsenic	56.4	68.5
Barium	5830	7080
Benzene	14.5	17.7
Benzidine	0.00437	0.00531
Benzo(a)anthracene	0.0699	0.0849
Benzo(a)pyrene	0.00728	0.00885
Bis(chloromethyl)ether	0.00699	0.00849
Bis(2-chloroethyl)ether	1.74	2.12
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)		
phthalate]	17.4	21.2
Bromodichloromethane	20.7	26.1
[Dichlorobromomethane]	29.7	36.1
Bromoform [Tribromomethane]	195	236
Cadmium	56.5	68.7
Carbon Tetrachloride	13.1	15.9
Chlordane	0.00728	0.00885
Chlorobenzene	291	354
Chlorodibromomethane [Dibromochloromethane]	21.8	26.5
	204	20.3
Chromium (hovavalent)		
Chromium (hexavalent)	180	219
Chrysene Crearle [Mathematical	7.14	8.67
Cresols [Methylphenols]	3034	3685
Cyanide (free)	583	708
4,4'-DDD	0.00583	0.00708
4,4'-DDE	9	0.00046
4,4'-DDT	0.00116	0.00141
2,4'-D	204	247
Danitol [Fenpropathrin]	763	927
1,2-Dibromoethane [Ethylene Dibromide]	0.495	0.601
m-Dichlorobenzene [1,3-Dichlorobenzene]	938	1139
o-Dichlorobenzene [1,2-Dichlorobenzene]	1749	2124
p-Dichlorobenzene [1,4-Dichlorobenzene]	218	265
3,3'-Dichlorobenzidine	2.30	2.79
1,2-Dichloroethane 1,1-Dichloroethylene [1,1-Dichloroethene]	14.5	17.7
	20.4	24.7
Dichloromethane [Methylene Chloride]	14.5	17.7
1,2-Dichloropropane	14.5	17.7
1,3-Dichloropropene [1,3-Dichloropropylene]	8.16	9.91
Dicofol [Kelthane]	0.874	1.06
Dieldrin	0.00005 83	0.00007 08
2,4-Dimethylphenol	1294	1571
<u>, , , , , , , , , , , , , , , , , , , </u>		
Di-n-Butyl Phthalate	259 2.27E-	314 2.76E-
Dioxins/Furans [TCDD Equivalents]	07	2.766-
Endrin	0.0583	0.0708
Epichlorohydrin	155	189
Ethylbenzene	2040	2478
Ethylene Glycol	136279	165482
Emplere diyeor	1302/3	103402

Fluoride	11661	14160
Hardadda.	0.00023	0.00028
Heptachlor	0.00084	3
Heptachlor Epoxide	5	0.00102
Hexachlorobenzene	0.00198	0.00102
Hexachlorobutadiene	0.612	0.743
Hexachlorocyclohexane (alpha)	0.0227	0.0276
Hexachlorocyclohexane (beta)	0.437	0.531
Hexachlorocyclohexane (gamma) [Lindane]	0.437	0.708
Hexachlorocyclopentadiene	31.1	37.8
Hexachloroethane	5.36	6.51
Hexachlorophene	5.97	7.25
<u> </u>	3183	3865
4,4'-Isopropylidenediphenol		
Lead	18.8	22.9
Mercury	0.0355	0.0431
Methoxychlor	8.51	10.3
Methyl Ethyl Ketone	40422	49084
Methyl tert-butyl ether [MTBE]	43.7	53.1
Nickel	2347	2851
Nitrate-Nitrogen (as Total Nitrogen)	29154	35401
Nitrobenzene	133	161
N-Nitrosodiethylamine	0.0107	0.0130
N-Nitroso-di- <i>n</i> -Butylamine	0.346	0.421
Pentachlorobenzene	1.01	1.23
Pentachlorophenol	0.641	0.778
Polychlorinated Biphenyls [PCBs]	0.00186	0.00226
Pyridine	67.0	81.4
Selenium	145	177
1,2,4,5-Tetrachlorobenzene	0.670	0.814
1,1,2,2-Tetrachloroethane	4.78	5.80
Tetrachloroethylene [Tetrachloroethylene]	14.5	17.7
Thallium	0.349	0.424
Toluene	2915	3540
Toxaphene	0.0320	0.0389
2,4,5-TP [Silvex]	145	177
1,1,1-Trichloroethane	583	708
1,1,2-Trichloroethane	14.5	17.7
Trichloroethylene [Trichloroethene]	14.5	17.7
2,4,5-Trichlorophenol	3029	3678
TTHM [Sum of Total Trihalomethanes]	233	283
Vinyl Chloride	0.670	0.814

Erwin Madrid

From: Erwin Madrid

Sent: Friday, December 20, 2024 8:51 AM

To: Bennett, Brian; Kendall Borg

Cameron Currie; Mike Jones; Charles Leist; Woelke, Allen

Subject: RE: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

Will do, thank you for the information.

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.

From: Bennett, Brian <BennettBJ@cdmsmith.com>

Sent: Friday, December 20, 2024 8:12 AM

To: Erwin Madrid <Erwin.Madrid@tceq.texas.gov>; Kendall Borg <KendallB@wacotx.gov>

Cc: Cameron Currie <CameronC@wacotx.gov>; Mike Jones <MikeJ@wacotx.gov>; Charles Leist <CharlesL@wacotx.gov>;

Woelke, Allen < Woelke AD@cdmsmith.com>

Subject: RE: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

It's a little unusual in that the City of Waco's address they list on their website is:

City of Waco, Texas PO Box 2570 300 Austin Avenue Waco, TX 76702 <u>View Map</u>

It has both a street address and a PO box but I guess the USPS mail goes to a PO box in the municipal building and the full address is used for non-USPS deliveries. I think any of the iterations would work.

Thanks,

Brian

From: Erwin Madrid < Erwin. Madrid@tceq.texas.gov>

Sent: Thursday, December 19, 2024 5:32 PM

To: Kendall Borg <KendallB@wacotx.gov>; Bennett, Brian <BennettBJ@cdmsmith.com>

Cc: Cameron Currie < CameronC@wacotx.gov">ComeronC@wacotx.gov; Mike Jones < MikeJ@wacotx.gov; Charles Leist < Charles Leist < <a href="mailto:Charles Leist < a href

Woelke, Allen < WoelkeAD@cdmsmith.com>

Subject: RE: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

Thank you for getting back to me promptly. I will use the P.O. Box address, although this conflicts with the response I received that instructed us to use the 300 Austin Avenue address. The mailing address is used in the Notice.

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.

From: Kendall Borg < Kendall B@wacotx.gov > Sent: Thursday, December 19, 2024 5:28 PM

To: Erwin Madrid < Erwin Madrid@tceq.texas.gov>; Bennett, Brian < BennettBJ@cdmsmith.com>

Cc: Cameron Currie <CameronC@wacotx.gov>; Mike Jones <MikeJ@wacotx.gov>; Charles Leist <CharlesL@wacotx.gov>;

Woelke, Allen < Woelke AD@cdmsmith.com>

Subject: Re: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

PO Box 2570 300 Austin Avenue Waco, TX 76702

The P.O. Box is 76702, city hall proper is 76701. Mail should go to the PO Box to ensure proper delivery.

-Kendall Borg Utilities Plant Operations Manager

Kendall Borg Utility Plant Operations Manager City of Waco - Utilities

From: Erwin Madrid < Erwin.Madrid@tceq.texas.gov Sent: Thursday, December 19, 2024 5:23:34 PM

To: Bennett, Brian BennettBJ@cdmsmith.com

Cc: Cameron Currie <CameronC@wacotx.gov>; Kendall Borg <KendallB@wacotx.gov>; Mike Jones

<<u>MikeJ@wacotx.gov</u>>; Charles Leist <<u>CharlesL@wacotx.gov</u>>; Woelke, Allen <<u>WoelkeAD@cdmsmith.com</u>>

Subject: RE: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

CAUTION: This email originated outside the company. Do not click links or open attachments unless you are expecting them from the sender.

Hi Mr. Bennett,

I am working reviewing the response and I noticed that the zip code you listed for "300 Austin Avenue, Waco, Texas 76702" conflicts with the USPS validation, they have it as **76701**? Can you please confirm.

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.

From: Bennett, Brian < BennettBJ@cdmsmith.com >

Sent: Friday, December 13, 2024 3:19 PM

To: Erwin Madrid < Erwin. Madrid@tceq.texas.gov>

Cc: cameronc@wacotx.gov; Kendall Borg <KendallB@wacotx.gov>; Mike Jones <MikeJ@wacotx.gov>; Charles Leist

<<u>CharlesL@wacotx.gov</u>>; Woelke, Allen <<u>WoelkeAD@cdmsmith.com</u>>

Subject: RE: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

Please find the City of Waco's response to the NOD attached. If you need anything else, please just let me know.

On a related note, we have a somewhat technical question regarding a possible error in the sludge provisions of the existing permit language and we're not sure who exactly to discuss this with. I think the technical reviewer for the renewal may be a good place to start, so if that's not you, will you please let us know who this one gets assigned to so we can reach out?

Thanks, Brian

Brian J. Bennett, PMP

Principal
Senior Project Manager
CDM Smith
303-383-2484

bennettbi@cdmsmith.com

From: Erwin Madrid < Erwin.Madrid@tceq.texas.gov>

Sent: Friday, December 6, 2024 3:57 PM

To: Bennett, Brian < BennettBJ@cdmsmith.com >

Cc: cameronc@wacotx.gov; Erwin Madrid Erwin Madrid@tceq.texas.gov

Subject: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

Importance: High

Dear applicant,

The attached Notice of Deficiency (NOD) letter dated <u>December 6, 2024</u>, requests additional information needed to declare the application administratively complete. Please email the complete response to my attention by <u>December 20, 2024</u>.

Please let me know if you have any questions.

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.

Erwin Madrid

From: Bennett, Brian <BennettBJ@cdmsmith.com>

Sent: Friday, December 13, 2024 3:19 PM

To: Erwin Madrid

Cc:cameronc@wacotx.gov; Kendall Borg; Mike Jones; Charles Leist; Woelke, AllenSubject:RE: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency LetterAttachments:Waco_Renewal_NOD1_Response_12-13-24.pdf; Central WWTP Renewal -Municipal

TPDES and TLAP PLS Form.docx

Please find the City of Waco's response to the NOD attached. If you need anything else, please just let me know.

On a related note, we have a somewhat technical question regarding a possible error in the sludge provisions of the existing permit language and we're not sure who exactly to discuss this with. I think the technical reviewer for the renewal may be a good place to start, so if that's not you, will you please let us know who this one gets assigned to so we can reach out?

Thanks, Brian

Brian J. Bennett, PMP

Principal
Senior Project Manager
CDM Smith
303-383-2484
bennettbi@cdmsmith.com

From: Erwin Madrid < Erwin. Madrid@tceq.texas.gov>

Sent: Friday, December 6, 2024 3:57 PM

To: Bennett, Brian <BennettBJ@cdmsmith.com>

Cc: cameronc@wacotx.gov; Erwin Madrid < Erwin.Madrid@tceq.texas.gov>

Subject: Transfer Application for Permit No. WQ0011071001 - Notice of Deficiency Letter

Importance: High

Dear applicant,

The attached Notice of Deficiency (NOD) letter dated <u>December 6, 2024</u>, requests additional information needed to declare the application administratively complete. Please email the complete response to my attention by <u>December 20, 2024</u>.

Please let me know if you have any questions.

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division

512-239-2191

Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.



8310-1 N Capital of Texas Hwy, Suite 250, Austin, Texas 78731 tel: 512-346-1100

December 13, 2024

Erwin Madrid
Texas Commission on Environmental Quality Water Quality Division
Applications Review and Processing Team, MC-148
P.O. Box 13087
Austin, Texas 78711-3087

Subject: Waco Metropolitan Area Regional Sewerage System (WMARSS) Central

Wastewater Treatment Facility (WQ0011071001) TPDES Permit Renewal

Application Package Notice of Deficiency Response

To Whom it May Concern:

Enclosed you will find copies of the City of Waco's response to the Notice of Deficiency (NOD) Letter Received December 6, 2024 pertaining to our application for renewal of the existing TPDES permit for the City of Waco's Central Wastewater Treatment Facility (WQ0011071001).

Responses to specific items from the NOD letter are as follows:

1. Section II, Item 15 of the TCEQ Core Data Form: The current permit has a mailing address of 300 Austin Avenue, Waco, Texas 76702. The CDF indicates P.O. Box 2570, Waco, Texas. Please confirm which mailing address to use in the renewal for the issued permit.

Response: Please use the current City of Waco mailing address: 300 Austin Avenue Waco, Texas 76702

2. Section 8.E on page 7 of the Administrative Report: Items 1-4 are checked "no", but item 5 indicates Spanish as the alternate language for public notices. This information is conflicting. Please clarify if publishing notices in an alternate language is required.

Response: Publishing notices in an alternate language is not required.

3. Section 12.B on page 10 of the Administrative Report: The application indicates that the current permit authorizes sludge disposal on-site, however, the current permit does not have sludge disposal provisions. Please confirm if you are requesting to add sludge disposal provisions to the current permit. If you are requesting sludge disposal provisions, a Major Amendment application will be required.

Response: The City of Waco is not requesting on-site sludge disposal provisions.



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4. Please use the attached Plain Language Summary (PLS) Template to provide a plain language summary in English. Please provide the PLS in a Microsoft Word Document.

Response: An English-language Plain Language Summary is provided in **Attachment A** of this response. A Microsoft Word version of this document is also provided with this response email.

5. *If applicable* - Section 8, Item E, Item No. 5 of Administrative Report 1.0 indicates that public notices in Spanish are required. Please use the attached PLS Spanish template to translate the plain language summary into Spanish. Please provide the translated Spanish PLS in a Microsoft Word Document.

Response: Not applicable, alternate language public notices are not required.

6. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. City of Waco, P.O. Box 2570, Waco, Texas 76702, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011071001 (EPA I.D. No. TX0026506) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 45,000,000 gallons per day. The domestic wastewater treatment facility is located at 1147 Treatment Plant Road, Waco, in McLennan County, Texas 76706. The discharge route is from the plant site directly to the Brazos River Above Navasota River. TCEQ received this application on July 23, 2024. The permit application will be available for viewing and copying at City of Waco City Hall, 300 Austin Avenue, Waco, in McLennan County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.064444.31.5175&level=18

Further information may also be obtained from City of Waco at the address stated above or by calling Ms. Lisa Tyer, Utilities Director, at 254-750-8079.

Response: The proposed NORI language appears to be correct other than the City of Waco address. Please use the current City of Waco mailing address:

300 Austin Avenue Waco, Texas 76702



8310-1 N Capital of Texas Hwy, Suite 250, Austin, Texas 78731 tel: 512-346-1100

7. *If applicable* - The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Response: Not applicable, alternate language public notices are not required.

We believe this response fulfills the request from the NOD and will result in the application qualifying as administratively complete. Please do not hesitate to contact me with any question at (303) 383-2484 or via email at BennettBl@cdmsmith.com.

Sincerely,

Brian Bennett, PMP

Bun Bun A

Principal Project Manager CDM Smith Inc.

CDM SIIIIII IIIC.

cc: Charles Leist, City of Waco

Mike Jones, City of Waco Kendall Borg, City of Waco Allen Woelke, CDM Smith

Attachment A

Plain Language Summary (PLS)

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the blanks below to describe your facility and application. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Waco (CN600131940) operates the City of Waco Central Wastewater Treatment Plant RN102097235. a domestic wastewater treatment facility. The facility is located at 1147 Treatment Plant Road, in Waco, McLennan County, Texas 76706.

This application is for a renewal without changes to the existing Texas Discharge Elimination System (TPDES) Permit No. WQ0011071001 (EPA I.D. No. TX0026506) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 45,000,000 gallons per day.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), ammonia nitrogen (NH₃-N), and

Escherichia coli. Domestic wastewater is treated by passing first through bar screens, then it travels to the primary clarifiers, aeration basins, final clarifiers, and sand filters. Then treated wastewater is chlorinated and dechlorinated and discharged to the Brazos River. Sludge from the primary clarifiers passes through the clarifier and sludge screening and is then thickened. Sludge from the final clarifiers is also thickened. After sludge thickening the sludge is anaerobically digested. The sludge is sent to the belt presses and to a dryer.

INSTRUCTIONS

- 1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
- 2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
- 3. Choose "operates" in this section for existing facility applications or choose "proposes to operate" for new facility applications.
- 4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
- 5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
- 6. Choose the appropriate article (a or an) to complete the sentence.
- 7. Enter a description of the facility in this section. For example, a domestic permit might specify: city ISD, MUD, etc.
- 8. Choose "is" for an existing facility or "will be" for a new facility.
- 9. Enter the location of the facility in this section.
- 10. Enter the City nearest the facility in this section.
- 11. Enter the County nearest the facility in this section.
- 12. Enter the zip code for the facility address in this section.
- 13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
- 14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
- 15. Enter the discharge types from your facility in this section (e.g., domestic wastewater.)
- 16. Choose the appropriate verb tense to complete the sentence.
- 17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with

the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Examples

Example 1: Domestic Wastewater TPDES Renewal application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN0000000000) operates the City of Texas wastewater treatment plant (RN00000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to discharge at an annual average flow of 1,200,000 gallons per day of treated domestic wastewater via Outfalls 001 and 002.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3 -N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 2: TPDES New Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN000000000) proposes to operate the City of Texas wastewater treatment plant (RN00000000), an activated sludge process plant operated in the extended aeration mode. The facility will be located at 123 Texas Street, in the City of More Texas, Texas County, Texas 71234.

This application is for a new application to discharge at a daily average flow of 200,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3 -N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater will be treated by an activated sludge process plant and the treatment units will include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 3: TLAP Renewal application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN0000000000) operates the City of Texas wastewater treatment plant (RN00000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to dispose a daily average flow not to exceed 76,500 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 32 acres. This permit will not authorize a discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, an equalization basin, an aeration basin, a final clarifier, an aerobic sludge digester, tertiary filters, and a chlorine contact chamber. In addition, the facility includes a temporary storage that equals to at least three days of the daily average flow.



8310-1 N. Capital of Texas Highway, Suite 250 Austin, Texas 78731 tel: 512-346-1100

July 24, 2024

Texas Commission on Environmental Quality Water Quality Division Applications Review and Processing Team, MC-148 P.O. Box 13087 Austin, Texas 78711-3087

Subject: City of Waco Central Wastewater Treatment Plant (WQ0011071001) TPDES

Permit Renewal Application Package

To Whom it May Concern:

Enclosed you will find copies of the completed renewal application for the TPDES permit for the City of Waco Central Wastewater Treatment Plant (WQ0011071001), owned and operated by the City of Waco. This application is for a renewal with no amendments. A check for the permit application fee of \$2,015.00 has been submitted and documentation is included within the application package.

Please do not hesitate to contact me with any question at (512) 652-5331 or via email at WoelkeAD@cdmsmith.com

Sincerely,

Allen D. Woelke, P.E.

allu Dellel.

Vice President

CDM Smith Inc., TBPE F-3043

cc: Charles Leist, City of Waco

Mike Jones, City of Waco Brian Bennett, CDM Smith

City of Waco Central Wastewater Treatment Facility (WQ0011071001)

TPDES Permit Renewal Application

Domestic Administrative Report	Section 1
Domestic Technical Report	Section 2
Attachments	
TCEQ Core Data Form	Attachment A
USGS 7.5 Minute Quadrangle Map	Attachment B
Buffer Zone Map	Attachment C
Process Flow Diagram	Attachment [
Site Layout and Service Area Maps	Attachment E
Easement Information	Attachment F
General Highway Map	Attachment G
USDA Soil Map	Attachment H
FEMA FIRM Map	Attachment I
Lagoon Details	Attachment J
Laboratory Analytical Reports	Attachment k



TCFO

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: City of Waco

PERMIT NUMBER: WQ0011071001

Indicate if each of the following items is included in your application.

	Y	N		\mathbf{Y}	N
Administrative Report 1.0	\boxtimes		Original USGS Map		
Administrative Report 1.1	\boxtimes		Affected Landowners Map		\boxtimes
SPIF	\boxtimes		Landowner Disk or Labels		\boxtimes
Core Data Form	\boxtimes		Buffer Zone Map		
Technical Report 1.0	\boxtimes		Flow Diagram		
Technical Report 1.1		\boxtimes	Site Drawing		
Worksheet 2.0	\boxtimes		Original Photographs		\boxtimes
Worksheet 2.1		\boxtimes	Design Calculations		\boxtimes
Worksheet 3.0	\boxtimes		Solids Management Plan		\boxtimes
Worksheet 3.1			Water Balance		\boxtimes
Worksheet 3.2		\boxtimes			
Worksheet 3.3		\boxtimes			
Worksheet 4.0	\boxtimes				
Worksheet 5.0	\boxtimes				
Worksheet 6.0	\boxtimes				
Worksheet 7.0		\boxtimes			

For TCEQ Use Only		
Segment Number	County	
Expiration Date	Region	
Permit Number		



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 29)

Indicate the amount submitted for the application fee (check only one).

Flow	New/Major Amendment	Renewal
<0.05 MGD	\$350.00 □	\$315.00 □
≥0.05 but <0.10 MGD	\$550.00 □	\$515.00 □
≥0.10 but <0.25 MGD	\$850.00 □	\$815.00 □
≥0.25 but <0.50 MGD	\$1,250.00 □	\$1,215.00 □
≥0.50 but <1.0 MGD	\$1,650.00 □	\$1,615.00 □
≥1.0 MGD	\$2,050.00	\$2,015.00

Minor Amendment (for any flow) $$150.00 \square$

Payment Information:

Mailed Check/Money Order Number:

Check/Money Order Amount: \$2,015.00 Name Printed on Check: City of Waco

EPAY Voucher Number: 712168 & 712169 w/Trace Number: 582EA000616693

Copy of Payment Voucher enclosed? Yes ⊠

Section 2. Type of Application (Instructions Page 29)

	New TPDES		New TLAP
	Major Amendment <u>with</u> Renewal		Minor Amendment with Renewal
	Major Amendment without Renewal		Minor Amendment <u>without</u> Renewal
\boxtimes	Renewal without changes		Minor Modification of permit
For	amendments or modifications, describe the p	ropo	sed changes:

For existing permits:

Permit Number: WQ0011071001 EPA I.D. (TPDES only): TX<u>0026506</u> Expiration Date: <u>January 24, 2025</u> Select Fee **Shopping Cart**

Search Transactions

Sign Out

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

-Transaction Information

582EA000616693 Trace Number: 07/08/2024 07:56 AM Date: CC - Authorization 0000080155 Payment Method:

KENDALL BORG ePay Actor:

kendallb@wacotx.gov Actor Email:

24.155.191.50 Η

TCEQ Amount: \$2,015.00

Texas.gov Price: \$2,060.59*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: KENDALL BORG

CITY OF WACO Company:

Address: 1415 N 4TH STREET, WACO, TX 76707 Phone: 254-750-8060

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Voucher Fee Description	AR Number Amount	Amount
712168	WW PERMIT - FACILITY WITH FLOW $>= 1.0 \text{ MGD}$ - RENEWAL		\$2,000.00
712169	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE		\$15.00

\$2,015.00 TCEQ Amount:

ePay Again

Exit ePay

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

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Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

A. The owner of the facility must apply for the permit.

What is the Legal Name of the entity (applicant) applying for this permit?

City of Waco

(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at http://www15.tceq.texas.gov/crpub/

CN: 600131940

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Bradley Ford

Credential (P.E, P.G., Ph.D., etc.): City Manager

Title: City of Waco City Manager

B. Co-applicant information. Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at: http://www15.tceq.texas.gov/crpub/

CN: Click here to enter text

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss):

First and Last Name:

Credential (P.E, P.G., Ph.D., etc.):

Title:

Provide a brief description of the need for a co-permittee:

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the

customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0.

Attachment: Attachment A

Section 4. Application Contact Information (Instructions Page 30)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

A. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: <u>Brian Bennett</u> Credential (P.E, P.G., Ph.D., etc.): <u>PMP</u>

Title: Principal

Organization Name: CDM Smith, Inc.

Mailing Address: 8310-1 N Capital of Texas Hwy, Suite 250

City, State, Zip Code: Austin, TX 78751

Phone No.: 303-383-2484 Ext.: Fax No.:

E-mail Address: <u>bennettbj@cdmsmith.com</u>

Check one or both:

Administrative Contact

Technical Contact

B. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Cameron Currie

Credential (P.E, P.G., Ph.D., etc.):

Title: Wastewater Plant Superintendent

Organization Name: <u>City of Waco</u> Mailing Address: P.O. Box 2570

City, State, Zip Code: Waco, TX 76702

Phone No.: <u>254-299-2450</u> Ext.: Fax No.: <u>254-299-2453</u>

E-mail Address: <u>CameronC@wacotx.gov</u>

Check one or both: \square Administrative Contact \square Technical Contact

Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

A. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: <u>Allen Woelke</u> Credential (P.E., P.G., Ph.D., etc.): P.E.

Title: Vice President

Organization Name: CDM Smith

Mailing Address: 9430 Research Blvd. Suite 1-200

City, State, Zip Code: Austin, TX 78759

Phone No.: <u>512-346-1100</u> Ext.: Fax No.:

E-mail Address: woelkead@cdmsmith.com

B. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Cameron Currie

Credential (P.E, P.G., Ph.D., etc.):

Title: Wastewater Plant Superintendent

Organization Name: <u>City of Waco</u> Mailing Address: P.O. Box 2570

City, State, Zip Code: Waco, TX 76702

Phone No.: <u>254-299-2450</u> Ext.: Fax No.: <u>254-299-2453</u>

E-mail Address: CameronC@wacotx.gov

Section 6. Billing Information (Instructions Page 30)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits *in effect on September 1 of each year*. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

Prefix (Mr., Ms., Miss): Ms.

First and Last Name: Mindy Smith Credential (P.E., P.G., Ph.D., etc.): CPA

Title: Utility Finance Officer

Organization Name: <u>City of Waco</u> Mailing Address: P.O. Box 2570

City, State, Zip Code: Waco, TX 76702

Phone No.: <u>254-750-8021</u> Ext.: Fax No.: <u>254-750-8032</u>

E-mail Address: mindys@wacotx.gov

Section 7. DMR/MER Contact Information (Instructions Page 31)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (EPA 3320-1) or maintain Monthly Effluent Reports.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Cameron Currie

Credential (P.E., P.G., Ph.D., etc.):

Title: Wastewater Plant Superintendent

Organization Name: <u>City of Waco</u> Mailing Address: <u>P.O. Box 2570</u>

City, State, Zip Code: Waco, TX 76702

Phone No.: <u>254-299-2450</u> Ext.: Fax No.: <u>254-299-2453</u>

E-mail Address: CameronC@wacotx.gov

DMR data is required to be submitted electronically. Create an account at:

https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

Prefix (Mr., Ms., Miss):

First and Last Name: Hope Kurtz

Credential (P.E, P.G., Ph.D., etc.):

Title: Customer Service Representative

Organization Name: <u>City of Waco</u>

Mailing Address: <u>P.O. Box 2570</u>

Phone No.: 254-750-8040 Ext.:

City, State, Zip Code: Waco, TX 76702

E-mail Address: HopeK@wacotx.gov

B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Fax No.: 254-750-8032

Indicate by a check mark the preferred method for receiving the first notice and instructions:

□ Fax

☐ Regular Mail

C. Contact person to be listed in the Notices

Prefix (Mr., Ms., Miss): Ms.

First and Last Name: Lisa Tyer

Credential (P.E, P.G., Ph.D., etc.):

Title: Utilities Director

Organization Name: <u>City of Waco</u>

	Ph	one No.	: <u>254-750-</u>	8079 E	xt.:	rk here to enter text.
	E-r	nail: <u>Lis</u>	aT@wacot	x.gov		
D.	Pu	blic Vie	wing Info	rmatio	n	
	If t	he facil	•	all is lo		n more than one county, a public viewing place for each
	Pu	blic bui	lding nam	e: <u>City</u>	of Waco	<u>o City Hall</u>
	Lo	cation v	vithin the	buildin	g: <u>City</u>	Secretary Office
	Ph	ysical A	ddress of	Buildin	ıg: <u>300</u>	Austin Ave.
	Cit	y: <u>Wacc</u>	<u>)</u>			County: <u>McLennan</u>
	Co	ntact N	ame: <u>City</u> :	<u>Secreta</u>	<u>ry</u>	
	Ph	one No.	: <u>254-750-</u>	5756 E	xt.: Clic	ck here to enter text.
F	Ril	ingual l	Notice Red	nnirem	entci	
	Th	is infor	mation is :	- require	ed for n	new, major amendment, and renewal applications. It is not or minor modification applications.
	be	needed		e instru	ıctions	only used to determine if alternative language notices will on publishing the alternative language notices will be in
	ob					linator at the nearest elementary and middle schools and to determine whether an alternative language notices are
	1.					m required by the Texas Education Code at the learest to the facility or proposed facility?
			Yes	\boxtimes	No	
		If no , p	oublicatior	of an	alterna	ative language notice is not required; skip to Section 9
	2.					ther the elementary school or the middle school enrolled in at that school?
			Yes	\boxtimes	No	
	3.	Do the locatio		at these	e schoo	ols attend a bilingual education program at another
			Yes	\boxtimes	No	
	4.					to provide a bilingual education program but the school ment under 19 TAC §89.1205(g)?
			Yes	\boxtimes	No	
	5.	If the a	ınswer is y	es to q	uestion	n 1, 2, 3, or 4, public notices in an alternative language are

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

A.	If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. $RN_{102097235}$
	Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.
В.	Name of project or site (the name known by the community where located):
	City of Waco Central Wastewater Treatment Plant
C.	Owner of treatment facility: <u>City of Waco</u>
	Ownership of Facility: $oxtimes$ Public $oxtimes$ Private $oxtimes$ Both $oxtimes$ Federal
D.	Owner of land where treatment facility is or will be:
	Prefix (Mr., Ms., Miss): <u>.</u>
	First and Last Name: <u>City of Waco</u>
	Mailing Address: P.O. Box 2570
	City, State, Zip Code: Waco, TX 76702
	Phone No.: <u>254-299-2450</u> E-mail Address: <u>cameronc@wacotx.gov</u>
	If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.
	Mar connection of week recorded executation and motivations.
	Attachment: N/A
E.	
E.	Attachment: N/A
Е.	Attachment: N/A Owner of effluent disposal site:
Е.	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss):
E.	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A
E.	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A Mailing Address:
E.	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A Mailing Address: City, State, Zip Code:
E.	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A Mailing Address: City, State, Zip Code: Phone No.: E-mail Address: If the landowner is not the same person as the facility owner or co-applicant, attach a lease
	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A Mailing Address: City, State, Zip Code: Phone No.: E-mail Address: If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.
	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A Mailing Address: City, State, Zip Code: Phone No.: E-mail Address: If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions. Attachment: N/A Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on
	Attachment: N/A Owner of effluent disposal site: Prefix (Mr., Ms., Miss): First and Last Name: N/A Mailing Address: City, State, Zip Code: Phone No.: E-mail Address: If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions. Attachment: N/A Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

	Mailing Address:
	City, State, Zip Code:
	Phone No.: E-mail Address:
	If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.
	Attachment: N/A
Se	ction 10. TPDES Discharge Information (Instructions Page 34)
	Is the wastewater treatment facility location in the existing permit accurate?
	⊠ Yes □ No
	If no , or a new permit application , please give an accurate description:
	Click here to enter text.
n	And the project (a) of displayers and the displayers proved (b) in the projection of a constant and the displayers
В.	Are the point(s) of discharge and the discharge route(s) in the existing permit correct?
	✓ Yes □ No
	If no , or a new or amendment permit application , provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in
	30 TAC Chapter 307:
	Click here to enter text.
	City nearest the outfall(s): <u>Robinson</u>
	County in which the outfalls(s) is/are located: McLennan County
	Outfall Latitude: <u>31.519470°</u> Longitude: <u>-97.064588°</u>
C.	Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?
	□ Yes ⊠ No
	If yes , indicate by a check mark if:
	☐ Authorization granted ☐ Authorization pending
	For new and amendment applications, provide copies of letters that show proof of contact
	and the approval letter upon receipt.
	Attachment: N/A
D.	For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge.

McLennan, Milam, Robertson, Falls, Burleson, Brazos, Washington, and Grimes Counties Section 11. TLAP Disposal Information (Instructions Page 36) **A.** For TLAPs, is the location of the effluent disposal site in the existing permit accurate? Yes No If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location: **B.** City nearest the disposal site: Robinson **C.** County in which the disposal site is located: McLennan **D.** Disposal Site Latitude: N/A Longitude: N/A **E.** For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site: N/A F. For TLAPs, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A Section 12. Miscellaneous Information (Instructions Page 37) **A.** Is the facility located on or does the treated effluent cross American Indian Land? Yes **B.** If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate? □ Not Applicable Yes No

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

	Click here to enfer text.
C.	Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?
	□ Yes ⊠ No
	If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:
	Click here to enter text.
D.	Do you owe any fees to the TCEQ?
	□ Yes ⊠ No
	If yes , provide the following information:
	Account number: Amount past due:
E.	Do you owe any penalties to the TCEQ?
	□ Yes ⊠ No
	If yes , please provide the following information:
	Enforcement order number: Amount past due:

Section 13. Attachments (Instructions Page 38)

Indicate which attachments are included with the Administrative Report. Check all that apply:

- Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.
- Original full-size USGS Topographic Map with the following information:
 - Applicant's property boundary
 - Treatment facility boundary
 - Labeled point of discharge for each discharge point (TPDES only)
 - Highlighted discharge route for each discharge point (TPDES only)
 - Onsite sewage sludge disposal site (if applicable)
 - Effluent disposal site boundaries (TLAP only)
 - New and future construction (if applicable)
 - 1 mile radius information
 - 3 miles downstream information (TPDES only)
 - All ponds.

_									
	Attachment 1 for Individuals as co-applicants								
	Other Attachments. Please specify:								

Section 14. Signature Page (Instructions Page 39)

If co-applicants are necessary, each entity must submit an original, separate signature page.

Permit Number: <u>WQ0011071001</u>

Applicant: City of Waco

Certification:

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

I further certify that I am authorized under 30 Texas Administrative Code § 305 44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed). <u>Bradley Ford</u>
Signatory title: City Manager, City of Waco, Texas
Signature:Date:
Subscribed and Sworn to before me by the said Dradley Ford, City Manager on this
My commission expires on the loth day of April , 20 27.
Notary Public JOLEA JAMES My Notary ID # 125824526 Expires April 6, 2027 County, Texas

DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page

Α.		cate by a check mark that the landowners map or drawing, with scale, includes the owing information, as applicable:
		The applicant's property boundaries
		The facility site boundaries within the applicant's property boundaries
		The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
		The property boundaries of all landowners surrounding the applicant's property (Note: it the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
		The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
		The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
		The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
		The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
		The property boundaries of all landowners surrounding the effluent disposal site
		The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
		The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located
В.	add	Indicate by a check mark that a separate list with the landowners' names and mailing resses cross-referenced to the landowner's map has been provided.
C.	Indi	cate by a check mark in which format the landowners list is submitted:
		□ Readable/Writeable CD □ Four sets of labels
D.	Prov	ride the source of the landowners' names and mailing addresses:
Е.		equired by $Texas\ Water\ Code\ \S\ 5.115$, is any permanent school fund land affected by this lication?
		□ Yes □ No
	If ye	es, provide the location and foreseeable impacts and effects this application has on the

	land(s	s):
	Click	there to enter text.
S	ectio	n 2. Original Photographs (Instructions Page 44)
		original ground level photographs. Indicate with checkmarks that the following ion is provided.
		t least one original photograph of the new or expanded treatment unit location
		At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
	□ A	t least one photograph of the existing/proposed effluent disposal site
		a plot plan or map showing the location and direction of each photograph
S	actio	n 3. Buffer Zone Map (Instructions Page 44)
	Buffer inforr	r zone map. Provide a buffer zone map on 8.5×11 -inch paper with all of the following nation. The applicant's property line and the buffer zone line may be distinguished by dashes or symbols and appropriate labels.
	•	The applicant's property boundary; The required buffer zone; and Each treatment unit; and The distance from each treatment unit to the property boundaries.
В.		zone compliance method. Indicate how the buffer zone requirements will be met.
		Ownership
		Restrictive easement
		Nuisance odor control
		Variance
C.		table site characteristics. Does the facility comply with the requirements regarding table site characteristic found in 30 TAC § 309.13(a) through (d)?
		Yes No

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:	
Application type:RenewalMajor An	
County:	
Admin Complete Date:	_
Agency Receiving SPIF:	
Texas Historical Commission	U.S. Fish and Wildlife
Texas Parks and Wildlife Department	U.S. Army Corps of Engineers
This form applies to TPDES permit application	ns only. (Instructions, Page 53)
The SPIF must be completed as a separate docureach agency as required by the TCEQ agreement addressed or further information is needed, you before the permit is issued. Each item must be o	t with EPA. If any of the items are not completely will be contacted to provide the information
be provided with this form separately from the	Dermit application form . Each attachment must administrative report of the application. The y complete without this form being completed in
The following applies to all applications:	
1. Permittee: <u>City of Waco</u>	
Permit No. WQ00 <u>11071001</u>	EPA ID No. TX <u>0026506</u>
Address of the project (or a location descrip and county):	tion that includes street/highway, city/vicinity,
1147 Treatment Plant Road Waco, Texas 76	<u>5706</u>

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.
Prefix (Mr., Ms., Miss): Mr.
First and Last Name: <u>Cameron Currie</u>
Credential (P.E, P.G., Ph.D., etc.):
Title: Wastewater Plant Superintendent
Mailing Address: P.O. Box 2570
City, State, Zip Code: Waco, TX 76702
Phone No.: <u>254-299-2450</u> Ext.: Fax No.: <u>254-299-2453</u>
E-mail Address: <u>CameronC@wacotx.gov</u>
List the county in which the facility is located: McLennan
If the property is publicly owned and the owner is different than the permittee/applicant,
please list the owner of the property. N/A
Provide a description of the effluent discharge route. The discharge route must follow the flow
of effluent from the point of discharge to the nearest major watercourse (from the point of
discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.
Segment No. 1242 of the Brazos River in the Brazos River Basin
Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).
Provide original photographs of any structures 50 years or older on the property.
Does your project involve any of the following? Check all that apply.
☐ Proposed access roads, utility lines, construction easements
□ Visual effects that could damage or detract from a historic property's integrity
□ Vibration effects during construction or as a result of project design
☐ Additional phases of development that are planned for the future
☐ Sealing caves, fractures, sinkholes, other karst features

2.3.

4.

5.

	□ Di	sturbance of vegetation or wetlands
6.		sed construction impact (surface acres to be impacted, depth of excavation, sealing or other karst features):
7.	Describe e	existing disturbances, vegetation, and land use:
	N/A	
		ING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR S TO TPDES PERMITS
		ruction dates of all buildings and structures on the property:
	N/A	
9.		brief history of the property, and name of the architect/builder, if known.
	Brazos Riv major mod customer	d for the Waco Metropolitan Area Regional Sewerage System (WMARSS) since 1968, the ver Authority (BRA) completed construction in 1985 for the new plant, BRA oversaw two diffications/enlargement programs until 2003 when BRA sold the WMARSS system to the cities. In 2019, The City of Waco received ownership of the WMARSS plant and assets and y operating the facility as the Central WWTP

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- Do not mail this form with the application form.
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality

Texas Commission on Environmental Quality

Financial Administration Division Financial Administration Division

Cashier's Office, MC-214
P.O. Box 13088
Cashier's Office, MC-214
12100 Park 35 Circle

Austin, Texas 78711-3088 Austin, Texas 78753

Fee Code: WQP Waste Permit No: WW0011071001

1. Check or Money Order Number:

2. Check or Money Order Amount: \$2,015.00

3. Date of Check or Money Order:

4. Name on Check or Money Order: City of Waco

5. APPLICATION INFORMATION

Name of Project or Site: City of Waco Central Wastewater Treatment Plant

Physical Address of Project or Site: <u>1147 Treatment Plant Road, Waco, TX 76706</u>

If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

THIS PAGE INTENTIONALLY LEFT BLANK

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 50)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

	Prefix (Mr., Ms., Miss):
	Full legal name (first, middle, last):
	Driver's License or State Identification Number:
	Date of Birth:
	Mailing Address:
	City, State, and Zip Code:
	Phone Number: Fax Number:
	E-mail Address: Mick here to enter text
	CN: Click here to enter text.
F	For Commission Use Only:
C	Customer Number:
R	Regulated Entity Number:
P	Permit Number:

CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of domestic wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate by checking Yes that each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until the items below have been addressed.

Core Data Form (TCEQ Form No. 10400) (Required for all applications types. Must be completed in its entirety and s Note: Form may be signed by applicant representative.)	igned.		Yes
Correct and Current Industrial Wastewater Permit Application Forms (TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)			Yes
Water Quality Permit Payment Submittal Form (Page 19) (Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)			Yes
7.5 Minute USGS Quadrangle Topographic Map Attached (Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)			Yes
Current/Non-Expired, Executed Lease Agreement or Easement Attached	\boxtimes	N/A	Yes
Landowners Map (See instructions for landowner requirements)	\boxtimes	N/A	Yes

Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

,			
Landowners Cross Reference List (See instructions for landowner requirements)		N/A	Yes
Landowners Labels or CD-RW attached (See instructions for landowner requirements)	\boxtimes	N/A	Yes
Original signature per 30 TAC § 305.44 - Blue Ink Preferred (If signature page is not signed by an elected official or principle executive of a copy of signature authority/delegation letter must be attached)	fficer	·,	Yes



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

For any questions about this form, please contact the Domestic Wastewater Permitting Team at 512-239-4671.

The following information is required for all renewal, new, and amendment applications.

Section 1. Permitted or Proposed Flows (Instructions Page 43)

A. Existing/Interim I Phase

Design Flow (MGD): 45.0

2-Hr Peak Flow (MGD): <u>83.23</u>

Estimated construction start date: <u>N/A</u>
Estimated waste disposal start date: <u>N/A</u>

B. Interim II Phase

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD): N/A

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

C. Final Phase

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD): $\underline{N/A}$

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

D. Current Operating Phase

Provide the startup date of the facility: N/A

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and

finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of** *each phase* **must be provided**.

Wastewater enters the plant, passes through bar screens, then travels to the primary clarifiers, aeration basins, final clarifiers, and sand filters. When influent flow is excessive, flow will be sent to two peak flow attenuation basins (formerly permanent sludge storage lagoons). Then treated wastewater is chlorinated and dechlorinated and discharged to the Brazos River. Sludge from the primary clarifiers passes through the clarifier and sludge screening and is then thickened. Sludge from the final clarifiers is also thickened. After sludge thickening the sludge is anaerobically digested. The sludge is sent to the belt presses and to a dryer and becomes pelletized sludge. If the pelletizer is down, the sludge is sent to a temporary sludge storage lagoon (formerly a permanent sludge storage lagoon) until the sludge dryer is operable.

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) of each treatment unit, accounting for *all* phases of operation.

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Primary Clarifiers	4	130.6 ft. x 60 ft. x 10 ft.
Secondary Clarifiers	4	Dia. = 129 ft.; Sidewater Depth = 14 ft.
Effluent Filters	6	110 ft. x 16 ft. (A=1,760 ft²)
Solids Side Primary Clarifier/Sedimentation Tank	1	Dia. = 70 ft.; Sidewater Depth = 10.5 ft.
Anaerobic Digesters	4	Dia. = 90 ft.; Sidewater Depth = 30 ft.
Aeration Basins	5- Anoxic 5- Aerobic	Anox.: 50 ft. x 49 ft. x 18 ft. Aero.: 199 ft. x 49 ft. x 18 ft.

C. Process Flow Diagram

Provide flow diagrams for the existing facilities and each proposed phase of construction.

Attachment: Attachment D

Section 3. Site Information and Drawing (Instructions Page 44)

Provide the TPDES discharge outfall latitude and longitude. Enter N/A if not applicable.

• Latitude: <u>31.519470°</u>

• Longitude: <u>-97.064588°</u>

Provide the TLAP disposal site latitude and longitude. Enter N/A if not applicable.

• Latitude: <u>N/A</u>

• Longitude: Click to enter text.

Provide a site drawing for the facility that shows the following:

• The boundaries of the treatment facility;

- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

Attachment: Attachment E

Provide the name **and** a description of the area served by the treatment facility.

Cities of Waco, Bellmead, Hewitt, Lacy-Lakeview, Robinson, <u>McGregor</u> and Woodway	

Collection System Information **for wastewater TPDES permits only**: Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
Waco Collection System	City of Waco	Publicly Owned	140,000
Bellmead Collection System	City of Bellmead	Publicly Owned	10,000
Hewitt Collection System	City of Hewitt	Publicly Owned	16,000
Lacy-Lakeview Collection System	City of Lacy- Lakeview	Publicly Owned	7,000
Robinson Collection System	City of Robinson	Publicly Owned	12,000
McGregor Collection System	City of McGregor	Publicly Owned	5,500
Woodway Collection System	City of Woodway	Publicly Owned	9,500

Section 4. Unbuilt Phases (Instructions Page 45)

Is	the	appl	lica	ation	for	a re	enewal	of a	a per	mit	that	contains	an	unbu	ilt p	hase	or	phas	ses?
		Ye	S	\boxtimes	No														

If yes, does the existing permit contain a phase that has not been constructed within five years of being authorized by the TCEQ?

□ Yes □ No

If yes, provide a detailed discussion regarding the continued need for the unbuilt phase. Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.

N/A
Section 5. Closure Plans (Instructions Page 45)
Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?
□ Yes ⊠ No
If yes, was a closure plan submitted to the TCEQ?
□ Yes ⊠ No
If yes, provide a brief description of the closure and the date of plan approval.
Click to enter text.
Costion 6 Dormit Chasifis Descrivements (Instructions Desc. 45)
Section 6. Permit Specific Requirements (Instructions Page 45)
For applicants with an existing permit, check the Other Requirements or Special Provisions of the permit.
A. Summary transmittal
Have plans and specifications been approved for the existing facilities and each proposed
phase?
⊠ Yes □ No

provision pertaining to the submission of a summary transmittal letter. **Provide a copy of an approval letter from the TCEQ, if applicable**.

Provide information, including dates, on any actions taken to meet a requirement or

If yes, provide the date(s) of approval for each phase: N/A

	N/A
B.	Buffer zones
	Have the buffer zone requirements been met?
	⊠ Yes □ No
	Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.
	Easement information for buffer zones provided as Attachment F
C.	Other actions required by the current permit
	Does the <i>Other Requirements</i> or <i>Special Provisions</i> section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.
	□ Yes ⊠ No
	If yes , provide information below on the status of any actions taken to meet the conditions of an <i>Other Requirement</i> or <i>Special Provision</i> .
	N/A
D.	Grit and grease treatment
	1. Acceptance of grit and grease waste
	Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

directly to the wastewater treatment plant prior to any treatment?

 \boxtimes Yes □ No

If No, stop here and continue with Subsection E. Stormwater Management.

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment

		works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.
		Grit and grease waste is accepted from haulers, unloaded into a rock trap, and then is sent to the industrial waste tank that is directly fed to the anaerobic digesters.
	<i>3.</i>	Grit disposal
		Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?
		□ Yes ⊠ No
		If No , contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.
		Describe the method of grit disposal.
		Rocks and waste are removed via rock trap and then hauled to the City of Waco Landfill, once or twice a week in a roll off container.
	4.	Grease and decanted liquid disposal
		Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.
		Describe how the decant and grease are treated and disposed of after grit separation.
		The liquid separated from the rock trap goes directly to the anaerobic digester.
F	Str	ormwater management
		Applicability
		Does the facility have a design flow of 1.0 MGD or greater in any phase?
		✓ Yes □ No

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

	⊠ Yes □ No
	If no to both of the above, then skip to Subsection F, Other Wastes Received.
2.	MSGP coverage
	Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?
	⊠ Yes □ No
	If yes , please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:
	TXR05 <u>Y207</u> or TXRNE <u>Click to enter text.</u>
	If no, do you intend to seek coverage under TXR050000?
	□ Yes □ No
3.	Conditional exclusion
	Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?
	□ Yes ⊠ No
	If yes, please explain below then proceed to Subsection F, Other Wastes Received:
1	N/A
4.	Existing coverage in individual permit
	Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?
	□ Yes ⊠ No
	If yes , provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.
	N/A
5.	Zero stormwater discharge
	Do you intend to have no discharge of stormwater via use of evaporation or other means?
	□ Yes ⊠ No

	N/A
	Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.
6.	Request for coverage in individual permit
	Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?
	□ Yes ⊠ No
	If yes, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.
	N/A
	Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.
Dis	scharges to the Lake Houston Watershed
Do	es the facility discharge in the Lake Houston watershed?

F. Di

□ Yes ⊠ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions. Click to enter text.

G. Other wastes received including sludge from other WWTPs and septic waste

1. Acceptance of sludge from other WWTPs

Does or will the facility accept sludge from other treatment plants at the facility site?

	⊠ Yes □ No Bullhide WWTP only										
	If yes, attach sewage sludge solids management plan. See Example 5 of instructions.										
	In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an										
	estimate of the BOD ₅ concentration of the sludge, and the design BOD ₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.										
	The plant started accepting sludge March 2012, currently the plant is accepting 0.5 million gallons per month. The estimated BOD5 sludge is from 7,776 to 8,424 mg/L. The BOD5 measurements are a result of the oil product used at the head of the plant to increase BOD5 for nutrient removal.										
	Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.										
2.	Acceptance of septic waste										
	Is the facility accepting or will it accept septic waste?										
	⊠ Yes □ No										
	If yes, does the facility have a Type V processing unit?										
	□ Yes ⊠ No										
	If yes, does the unit have a Municipal Solid Waste permit?										
	□ Yes ⊠ No										
	If yes to any of the above , provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD ₅ concentration of the septic waste, and the										
	design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.										
	The plant started accepting septic waste March 2012. Septic waste hauled to the plant is approximately 275,000 gallons/month. The average BOD5 concentration of the septic waste is: 4,267 mg/L. This information has not changed since the last permit action.										
	Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.										
3.	Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)										
	Is or will the facility accept wastes that are not domestic in nature excluding the categories listed above?										
	□ Yes ⊠ No										
	If yes , provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or										

other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 50)

Is the facility in operation?

⊠ Yes □ No

If no, this section is not applicable. Proceed to Section 8.

If yes, provide effluent analysis data for the listed pollutants. *Wastewater treatment facilities* complete Table 1.0(2). *Water treatment facilities* discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

Note: The sample date must be within 1 year of application submission.

Table1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l	2.19	4.0	31	Compo site	12/1/23- 12/31/23
Total Suspended Solids, mg/l	2.81	13	31	Compo site	12/1/23- 12/31/23
Ammonia Nitrogen, mg/l	0.17	2.3	31	Compo site	12/1/23- 12/31/23
Nitrate Nitrogen, mg/l	16.9	16.9	1	Compo site	12.13.23 / 0:01-23:59
Total Kjeldahl Nitrogen, mg/l	4.44	4.44	1	Compo site	12.13.23 / 0:01-23:59
Sulfate, mg/l	73.4	73.4	1	Compo site	7/25/23 1200
Chloride, mg/l	130	130	1	Compo site	7/25/23 1200
Total Phosphorus, mg/l	2.84	2.84	1	Compo site	12.13.23 / 0:01-23:59
pH, standard units	6.30	6.62	31	Grab	12/1/23- 12/31/23

Dissolved Oxygen*, mg/l	8.57	9.39	31	Grab	12/1/23- 12/31/23
Chlorine Residual, mg/l	0.02	0.08	31	Grab	12/1/23- 12/31/23
E.coli (CFU/100ml) freshwater	1.39	5.20	21	Grab	12/1/23- 12/31/23
Entercocci (CFU/100ml) saltwater	NA				
Total Dissolved Solids, mg/l	600	600	1	Compo site	7/25/23 1200
Electrical Conductivity, µmohs/cm, †	NA				
Oil & Grease, mg/l	< 5.0	< 5.0	4	Grab	12.13.23 / 00:00, 06:00,12:00 , 18:00
Alkalinity (CaCO ₃)*, mg/l	187.67	190	3	Grab	2/25/2024- 2/29/2024

^{*}TPDES permits only

Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l					
Total Dissolved Solids, mg/l					
pH, standard units					
Fluoride, mg/l					
Aluminum, mg/l					
Alkalinity (CaCO ₃), mg/l					

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Michael Garcia

Facility Operator's License Classification and Level: Wastewater Class A

Facility Operator's License Number: WW0055754

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

 \boxtimes Design flow>= 1 MGD

 \boxtimes Serves >= 10,000 people

[†]TLAP permits only

	Class I Sludge Management Facility (per 40 CFR § 503.9)
\boxtimes	Biosolids generator
	Biosolids end user – land application (onsite)
	Biosolids end user – surface disposal (onsite)
	Biosolids end user – incinerator (onsite)
ww	TP's Biosolids Treatment Process
Che	ck all that apply. See instructions for guidance.
	Aerobic Digestion
	Air Drying (or sludge drying beds)
	Lower Temperature Composting
	Lime Stabilization
	Higher Temperature Composting
\boxtimes	Heat Drying
	Thermophilic Aerobic Digestion
	Beta Ray Irradiation
	Gamma Ray Irradiation
	Pasteurization
	Preliminary Operation (e.g. grinding, de-gritting, blending)
\boxtimes	Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
	Sludge Lagoon
\boxtimes	Temporary Storage (< 2 years)
	Long Term Storage (>= 2 years)
	Methane or Biogas Recovery
slud drye slud	Other Treatment Process: <u>Sludge from the primary clarifiers passes through the clarifier sludge screening and is then thickened. Sludge from the final clarifiers is also thickened. After ge thickening the sludge is anaerobically digested. The sludge is sent to the belt presses and to a r and becomes pelletized sludge. If the pelletizer is down, the sludge is sent to a temporary ge storage lagoon (formerly a permanent sludge storage lagoon) until the sludge dryer is rable.</u>

C. Biosolids Management

B.

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Agricultural Land Application	On-Site Owner or Operator	Bulk	varies	Class A: PFRP Heat Drying	Option 1: Volatile solids reduced by 38%
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Click to enter text.

D. Disposal site

Disposal site name: City of Waco Landfill

TCEQ permit or registration number: 948-A

County where disposal site is located: McLennan

E. Transportation method

Method of transportation (truck, train, pipe, other): truck

Name of the hauler: <u>Varies depending on the need</u> Hauler registration number: <u>Click to enter text.</u>

Sludge is transported as a:

Liquid \square semi-liquid \boxtimes semi-solid \square solid \boxtimes

No sludge is being hauled at this time. This is strictly for emergency measures. Sludge is processed in the dryer facility.

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 53)

A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

□ Yes ⊠ No

If yes, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

□ Yes ⊠ No

If yes, is the completed Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451) attached to this permit application (see the instructions for details)?

□ Yes ⊠ No
B. Sludge processing authorization
Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?
Sludge Composting \square Yes \boxtimes No
Marketing and Distribution of sludge $oxtimes$ Yes $oxtimes$ No
Sludge Surface Disposal or Sludge Monofill□ Yes ⊠ No
Temporary storage in sludge lagoons□ Yes □ No
If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056) attached to this permit application?
□ Yes ⊠ No
Section 11. Sewage Sludge Lagoons (Instructions Page 53)
Does this facility include sewage sludge lagoons?
If yes, complete the remainder of this section. If no, proceed to Section 12.
A. Location information
The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.
Original General Highway (County) Map:
Attachment: Attachment G
 USDA Natural Resources Conservation Service Soil Map:
Attachment: Attachment H
• Federal Emergency Management Map:
Attachment: Attachment I
• Site map:
Attachment: Attachment E
Discuss in a description if any of the following exist within the lagoon area. Check all that apply.
☑ Overlap a designated 100-year frequency flood plain
☐ Soils with flooding classification
□ Overlap an unstable area
□ Wetlands
□ Located less than 60 meters from a fault
□ None of the above
Attachment: Click to enter text.

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

Existing berms above flood elevation		

B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in *Section 7 of Technical Report 1.0.*

Nitrate Nitrogen, mg/kg: 12,800

Total Kjeldahl Nitrogen, mg/kg: 11,300

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: 24,100

Phosphorus, mg/kg: <u>20,300</u> Potassium, mg/kg: <u>2,080</u>

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: 217

Arsenic: <u>0.07 mgL</u> Cadmium: <u>ND</u> Chromium: <u>ND</u>

Copper: 470 mg/kg

Lead: ND

Mercury: ND

Molybdenum: ND

Nickel: ND

Selenium: 3.1 mg/kg

Zinc: <u>496 mg/kg</u> Total PCBs: ND

Provide the following information:

Volume and frequency of sludge to the lagoon(s): <u>Sludge is only stored as an emergency when the dryer is inoperable.</u>

Total dry tons stored in the lagoons(s) per 365-day period: <u>Sludge is only stored in lagoon as an emergency when the dryer is inoperable.</u>

Total dry tons stored in the lagoons(s) over the life of the unit: 83,000 dry ton in 26 years (rough estimate based on all the sludge 5,200 ton/yr going to the basins from 1982 to 1997 and 467 dry ton/yr from 1997 to 2008.) It is unlikely that this amount will be stored in the basins now that the plant has been updated with new dryer units.

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

⊠ Yes □ No

If yes, describe the liner below. Please note that a liner is required.

Sludge basins have an in-situ clay layer. Information was submitted to the Texas Department of Water Resources (a predecessor of TCEQ) before the sludge unit liner was constructed. A copy of the letter dated April 19th, 1984 is attached (Attachment J). During construction of the sludge units in 1984, clay material that meets the design criteria was found at the site. The clay layer forms a natural barrier to protect any groundwater from the sludge. Additional testing and submittal to TCEQ as part of lagoon use modification amendment application submitted in 2023

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

The sludge is pumped from anaerobic digesters to the surface sludge disposal site if dryers are inoperable. The main pipe that feeds the surface disposal sites is a 6 inch force main Fiberglass Reinforced Pope (FRP) line.

Attach the following documents to the application.

• Plan view and cross-section of the sludge lagoon(s)

Attachment: Attachment J

• Copy of the closure plan

• Copy of deed recordation for the site

Attachment: Attachment J

Attachment: Attachment J

• Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

Attachment: Attachment J

• Description of the method of controlling infiltration of groundwater and surface water from entering the site

Attachment: Attachment J

Procedures to prevent the occurrence of nuisance conditions

Attachment: Attachment J

E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

⊠ Yes □ No

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: Click to enter text.

Section 12. Authorizations/Compliance/Enforcement (Instructions

Page 55)	
A. Additional authorizations	
Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?	
⊠ Yes □ No	
If yes, provide the TCEQ authorization number and description of the authorization:	
Reuse Water: R11071001 The sale of reuse water to Sandy Creek Power Plant, for cooling tower, boiler make up water, quench water	
B. Permittee enforcement status	
Is the permittee currently under enforcement for this facility?	
□ Yes ⊠ No	
Is the permittee required to meet an implementation schedule for compliance or enforcement?	
□ Yes ⊠ No	
If yes to either question, provide a brief summary of the enforcement, the implementa schedule, and the current status:	ıtion
N/A	

Section 13. RCRA/CERCLA Wastes (Instructions Page 55)

A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it rec	ceive
RCRA hazardous waste?	

B. Remediation activity wastewater

□ Yes ⊠ No

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

□ Yes ⊠ No

C. Details about wastes received

If yes to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 56)

Environmental Testing Laboratory Accreditation and Certification, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - o periodically inspected by the TCEQ; or
 - o located in another state and is accredited or inspected by that state; or
 - o performing work for another company with a unit located in the same site; or
 - performing pro bono work for a governmental agency or charitable organization.
- · The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review 30 TAC Chapter 25 for specific requirements.

The following certification statement shall be signed and submitted with every application. See the Signature Page section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

Printed Name: Bradley Ford

Title: City Manager

Signature:

Date: 1112124

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

The following information is required for new and amendment major applications.

Section 1. Justification for Permit (Instructions Page 57)

	T .1C1 .1	C		
Δ	Justification	Ot 1	nermit	need
/ L .	Justification	OI.	permit	IICCU

Provide a detailed discussion regarding the need for any phase(s) not currently permitted
Failure to provide sufficient justification may result in the Executive Director
recommending denial of the proposed phase(s) or permit.

	N/A	
D	Degionalization of facilities	
D.	Regionalization of facilities For additional guidance, please review <u>TCEQ's Regionalization Policy for Wastewater Treatment</u> ¹ .	
	Provide the following information concerning the potential for regionalization of domest wastewater treatment facilities:	ic
	1. Municipally incorporated areas	
	If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.	
	Is any portion of the proposed service area located in an incorporated city?	
	□ Yes □ No ⊠ Not Applicable	
	If yes, within the city limits of: Click to enter text.	
	If yes, attach correspondence from the city.	
	Attachment: Click to enter text.	
	If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.	
	Attachment: Click to enter text.	
	2. Utility CCN areas	
	Is any portion of the proposed service area located inside another utility's CCN area? \Box Yes \boxtimes No	

¹ https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion. Attachment: Click to enter text. 3. Nearby WWTPs or collection systems Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility? \boxtimes Yes No If ves, attach a list of these facilities and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems. Attachment: Click to enter text. If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system. Attachment: Click to enter text. If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion. Attachment: Click to enter text. Section 2. Proposed Organic Loading (Instructions Page 59) Is this facility in operation? Yes □ No **If no**, proceed to Item B, Proposed Organic Loading. If yes, provide organic loading information in Item A, Current Organic Loading A. Current organic loading Facility Design Flow (flow being requested in application): N/A Average Influent Organic Strength or BOD₅ Concentration in mg/l: N/A Average Influent Loading (lbs/day = total average flow X average BOD₅ conc. X 8.34): N/A Provide the source of the average organic strength or BOD₅ concentration. N/A

B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading.

Table 1.1(1) - Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality	N/A	N/A
Subdivision	N/A	N/A
Trailer park - transient	N/A	N/A
Mobile home park	N/A	N/A
School with cafeteria and showers	N/A	N/A
School with cafeteria, no showers	N/A	N/A
Recreational park, overnight use	N/A	N/A
Recreational park, day use	N/A	N/A
Office building or factory	N/A	N/A
Motel	N/A	N/A
Restaurant	N/A	N/A
Hospital	N/A	N/A
Nursing home	N/A	N/A
Other	N/A	N/A
TOTAL FLOW from all sources	N/A	N/A
AVERAGE BOD₅ from all sources	N/A	N/A

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 59)

A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: N/A

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: <u>N/A</u>

Total Phosphorus, mg/l: N/A

	Dissolved Oxygen, mg/l: <u>N/A</u>
	Other: <u>N/A</u>
В.	Interim II Phase Design Effluent Quality
	Biochemical Oxygen Demand (5-day), mg/l: <u>N/A</u>
	Total Suspended Solids, mg/l: <u>N/A</u>
	Ammonia Nitrogen, mg/l: <u>N/A</u>
	Total Phosphorus, mg/l: <u>N/A</u>
	Dissolved Oxygen, mg/l: <u>N/A</u>
	Other: <u>N/A</u>
C.	Final Phase Design Effluent Quality
	Biochemical Oxygen Demand (5-day), mg/l: <u>N/A</u>
	Total Suspended Solids, mg/l: <u>N/A</u>
	Ammonia Nitrogen, mg/l: <u>N/A</u>
	Total Phosphorus, mg/l: <u>N/A</u>
	Dissolved Oxygen, mg/l: <u>N/A</u>
	Other: <u>N/A</u>
D.	Disinfection Method
	Identify the proposed method of disinfection.
	☐ Chlorine: Click to enter text. mg/l after Click to enter text. minutes detention time at peak flow
	Dechlorination process: Click to enter text.
	□ Ultraviolet Light: <u>Click to enter text.</u> seconds contact time at peak flow
	□ Other: Click to enter text.
Se	ection 4. Design Calculations (Instructions Page 59)
	tach design calculations and plant features for each proposed phase. Example 4 of the structions includes sample design calculations and plant features.
	Attachment: Click to enter text.
Sa	ection 5. Facility Site (Instructions Page 60)
36	ection 3. Pacinty Site (mistractions rage 00)
A.	100-year floodplain
	Will the proposed facilities be located <u>above</u> the 100-year frequency flood level?
	□ Yes □ No

If no, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood

level. If applicable, provide the size and types of protective structures.

	Click to enter text.
	Provide the source(s) used to determine 100-year frequency flood plain.
	Click to enter text.
	For a new or expansion of a facility, will a wetland or part of a wetland be filled?
	□ Yes □ No
	If yes, has the applicant applied for a US Corps of Engineers 404 Dredge and Fill Permit?
	□ Yes □ No
	If yes, provide the permit number: Click to enter text.
	If no, provide the approximate date you anticipate submitting your application to the Corps: Click to enter text.
B.	Wind rose
	Attach a wind rose: Click to enter text.
Sc	ection 6. Permit Authorization for Sewage Sludge Disposal
50	(Instructions Page 60)
Α.	Beneficial use authorization
	Are you requesting to include authorization to land apply sewage sludge for beneficial us on property located adjacent to the wastewater treatment facility under the wastewater permit?
	□ Yes □ No
	If yes, attach the completed Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451): Click to enter text.
B.	Sludge processing authorization
	Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:
	□ Sludge Composting
	☐ Marketing and Distribution of sludge
	☐ Sludge Surface Disposal or Sludge Monofill
	If any of the above, sludge options are selected, attach the completed Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056): Click to enter text.

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 61)

Attach a solids management plan to the application.

Attachment: Click to enter text.

The sewage sludge solids management plan must contain the following information:

- Treatment units and processes dimensions and capacities
- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow
- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

An example of a sewage sludge solids management plan has been included as Example 5 of the instructions.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)
Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?
□ Yes ⊠ No
If no , proceed it Section 2. If yes , provide the following:
Owner of the drinking water supply: Click to enter text.
Distance and direction to the intake: Click to enter text.
Attach a USGS map that identifies the location of the intake.
Attachment: Click to enter text.
Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)
Does the facility discharge into tidally affected waters?
□ Yes ⊠ No
If no , proceed to Section 3. If yes , complete the remainder of this section. If no, proceed to Section 3.
A. Receiving water outfall
Width of the receiving water at the outfall, in feet: N/A
B. Oyster waters
Are there oyster waters in the vicinity of the discharge?
□ Yes ⊠ No
If yes, provide the distance and direction from outfall(s).
N/A
C. Sea grasses
Are there any sea grasses within the vicinity of the point of discharge?
□ Yes ⊠ No
If yes, provide the distance and direction from the outfall(s).
N/A

Section 3. **Classified Segments (Instructions Page 64)** Is the discharge directly into (or within 300 feet of) a classified segment? Yes □ No **If yes**, this Worksheet is complete. **If no**, complete Sections 4 and 5 of this Worksheet. Section 4. **Description of Immediate Receiving Waters (Instructions Page 65)** Name of the immediate receiving waters: Brazos River A. Receiving water type Identify the appropriate description of the receiving waters. \boxtimes Stream Freshwater Swamp or Marsh Lake or Pond Surface area, in acres: Click to enter text. Average depth of the entire water body, in feet: Click to enter text. Average depth of water body within a 500-foot radius of discharge point, in feet: Click to enter text. Man-made Channel or Ditch Open Bay Tidal Stream, Bayou, or Marsh Other, specify: River **B.** Flow characteristics If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one). Intermittent - dry for at least one week during most years Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses Perennial - normally flowing Check the method used to characterize the area upstream (or downstream for new dischargers). USGS flow records Historical observation by adjacent landowners Personal observation Other, specify: Click to enter text.

C.	Downstream perennial confluences							
		e names of all perennial streams the ream of the discharge point.	at joir	the receiving water within three miles				
	None							
D.	Downs	tream characteristics						
		receiving water characteristics charge (e.g., natural or man-made dam	_	ithin three miles downstream of the ds, reservoirs, etc.)?				
		Yes ⊠ No						
	If yes,	discuss how.						
	Click t	o enter text.						
E.	Norma	Normal dry weather characteristics						
	Provide	e general observations of the water body during normal dry weather conditions.						
				vaterbody that is approximately 200-ft				
	wide in this area with intermittent sand bars and cutbanks							
	Date ar	nd time of observation: Click to ent	ter tex	<u>t.</u>				
	Was th	e water body influenced by stormw	vater r	unoff during observations?				
		Yes ⊠ No						
S o	ction	Conoral Characteristic	oc of	the Waterbody (Instructions				
36	CHOIL	Page 66)	.5 01	the Waterbody (Instructions				
		ruge oo,						
Α.	-	am influences						
		mmediate receiving water upstrear ced by any of the following? Check		e discharge or proposed discharge site at apply.				
		Oil field activities		Urban runoff				
		Upstream discharges		Agricultural runoff				
	\boxtimes	Septic tanks		Other(s), specify: Click to enter text.				

B. Waterbody uses

 \square Domestic water supply \square Industrial water supply

□ Park activities □ Other(s), specify: Click to enter text.

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional

Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored

Common Setting: not offensive; developed but uncluttered; water may be colored or turbid

Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

Required for new applications, major facilities, and applications adding an outfall.

Worksheet 2.1 is not required for discharges to intermittent streams or discharges directly to (or within 300 feet of) a classified segment.

Section 1. General Information (Instructions Page 66)
Date of study: Click to enter text. Time of study: Click to enter text.
Stream name: <u>Click to enter text.</u>
Location: <u>Click to enter text.</u>
Type of stream upstream of existing discharge or downstream of proposed discharge (check one).
□ Perennial □ Intermittent with perennial pools
Section 2. Data Collection (Instructions Page 66)
Number of stream bends that are well defined: Click to enter text.
Number of stream bends that are moderately defined: Click to enter text.
Number of stream bends that are poorly defined: Click to enter text.
Number of riffles: Click to enter text.
Evidence of flow fluctuations (check one):
□ Minor □ moderate □ severe
Indicate the observed stream uses and if there is evidence of flow fluctuations or channel obstruction/modification.
N/A

Stream transects

In the table below, provide the following information for each transect downstream of the existing or proposed discharges. Use a separate row for each transect.

Table 2.1(1) - Stream Transect Records

Stream type at transect	Transect location	Water surface	Stream depths (ft) at 4 to 10 points along each transect from the channel bed to the water surface. Separate the measurements with commas.	
Select riffle, run, glide, or pool. See Instructions, Definitions section.		width (ft)		
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				
Choose an item.				

Section 3. Summarize Measurements (Instructions Page 66)

Streambed slope of entire reach, from USGS map in feet/feet: Click to enter text.

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): <u>Click to enter text.</u>

Length of stream evaluated, in feet: Click to enter text.

Number of lateral transects made: Click to enter text.

Average stream width, in feet: Click to enter text.

Average stream depth, in feet: Click to enter text.

Average stream velocity, in feet/second: Click to enter text.

Instantaneous stream flow, in cubic feet/second: Click to enter text.

Indicate flow measurement method (type of meter, floating chip timed over a fixed distance, etc.): <u>Click to enter text.</u>

Size of pools (large, small, moderate, none): Click to enter text.

Maximum pool depth, in feet: Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

The following is required for renewal, new, and amendment permit applications.

Section 1. Type of Disposal System (Instructions Page 68)

Identif	y the method of land disposal:					
	Surface application		Subsurface application			
	Irrigation		Subsurface soils absorption			
	Drip irrigation system		Subsurface area drip dispersal system			
	Evaporation		Evapotranspiration beds			
	Other (describe in detail): NON	<u>E</u>				
	NOTE: All applicants without authorization or proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0.					

Section 2. Land Application Site(s) (Instructions Page 68)

For existing authorizations, provide Registration Number: Click to enter text.

In table 3.0(1), provide the requested information for the land application sites. Include the agricultural or cover crop type (wheat, cotton, alfalfa, bermuda grass, native grasses, etc.), land use (golf course, hayland, pastureland, park, row crop, etc.), irrigation area, amount of effluent applied, and whether or not the public has access to the area. Specify the amount of land area and the amount of effluent that will be allotted to each agricultural or cover crop, if more than one crop will be used.

Table 3.0(1) - Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
N/A			

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 68)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type

Attach a copy of a liner certification that was prepared, signed, and sealed by a Texas licensed professional engineer for each pond.
Attachment: Click to enter text.
Section 4. Flood and Runoff Protection (Instructions Page 68)
Is the land application site <u>within</u> the 100-year frequency flood level?
□ Yes □ No
If yes, describe how the site will be protected from inundation.
N/A
Provide the source used to determine the 100-year frequency flood level:
Click to enter text.
Provide a description of tailwater controls and rainfall run-on controls used for the land
application site.
Click to enter text.

Section 5. Annual Cropping Plan (Instructions Page 68)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment**: N/A

- Soils map with crops
- Cool and warm season plant species
- Crop yield goals
- Crop growing season
- Crop nutrient requirements
- Additional fertilizer requirements
- Minimum/maximum harvest height (for grass crops)
- Supplemental watering requirements
- Crop salt tolerances
- Harvesting method/number of harvests
- Justification for not removing existing vegetation to be irrigated

Section 6. Well and Map Information (Instructions Page 69)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment**: N/A

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)
- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities
- All water wells within 1-mile radius of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells located within a half-mile radius of the disposal site or property boundaries shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) - Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
N/A			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	

If water quality data or well log information is available please include the information in an attachment listed by Well ID.

Attachment: Click to enter text.

Section 7. Groundwater Quality (Instructions Page 69)

Attach a Groundwater Quality Technical Report which assesses the impact of the wastewater disposal system on groundwater. This report shall include an evaluation of the water wells (including the information in the well table provided in Item 6. above), the wastewater application rate, and pond liners. Indicate by a check mark that this report is provided.

Attachment: Click to enter text.
Are groundwater monitoring wells available onsite? $oxdimes$ Yes $oxdimes$ No
Do you plan to install ground water monitoring wells or lysimeters around the land application site? \square Yes \boxtimes No
If yes, provide the proposed location of the monitoring wells or lysimeters on a site map.
Attachment: Click to enter text.

Section 8. Soil Map and Soil Analyses (Instructions Page 70)

A. Soil map

Attach a USDA Soil Survey map that shows the area to be used for effluent disposal.

Attachment: Click to enter text.

B. Soil analyses

Attach the laboratory results sheets from the soil analyses. **Note**: for renewal applications, the current annual soil analyses required by the permit are acceptable as long as the test date is less than one year prior to the submission of the application.

Attachment: Click to enter text.

List all USDA designated soil series on the proposed land application site. Attach additional pages as necessary.

Table 3.0(4) - Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number
N/A				
N/A				

Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

☐ Yes ☐ No

If no, this section is not applicable and the worksheet is complete.

If yes, provide the effluent monitoring data for the parameters regulated in the existing permit. If a parameter is not regulated in the existing permit, enter N/A.

Table 3.0(5) - Effluent Monitoring Data

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pН	Chlorine Residual mg/l	Acres irrigated
N/A	N/A	N/A	N/A	N/A	N/A	N/A

rrective actions taken.	
lick to enter text.	

Provide a discussion of all persistent excursions above the permitted limits and any

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND DISPOSAL OF EFFLUENT

The following is required for new and major amendment permit applications. Renewal and minor amendment permit applications may be asked for this worksheet on a case by case basis.

Section 1. Surface Disposal (Instructions Page 72)

Complete the item that applies for the method of disposal being used.

A. Irrigation

Area under irrigation, in acres: N/A

Design application frequency:

hours/day <u>Click to enter text</u>. And days/week <u>Click to enter text</u>.

Land grade (slope):

average percent (%): Click to enter text.

maximum percent (%): Click to enter text.

Design application rate in acre-feet/acre/year: Click to enter text.

Design total nitrogen loading rate, in lbs N/acre/year: Click to enter text.

Soil conductivity (mmhos/cm): Click to enter text.

Method of application: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, method of application, irrigation efficiency, and nitrogen balance.

Attachment: Click to enter text.

B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations.

Attachment: Click to enter text.

C. Evapotranspiration beds

Number of beds: Click to enter text.

Area of bed(s), in acres: <u>Click to enter text.</u>

Depth of bed(s), in feet: Click to enter text.

Void ratio of soil in the beds: Click to enter text.

Storage volume within the beds, in acre-feet: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, and a description of the lining.

Attachment: Click to enter text.

D.	Overland flow
	Area used for application, in acres: Click to enter text.
	Slopes for application area, percent (%): Click to enter text.
	Design application rate, in gpm/foot of slope width: Click to enter text.
	Slope length, in feet: <u>Click to enter text.</u>
	Design BOD ₅ loading rate, in lbs BOD ₅ /acre/day: <u>Click to enter text.</u>
	Design application frequency:

hours/day: Click to enter text. And days/week: Click to enter text.

Attach a separate engineering report with the method of application and design requirements according to *30 TAC Chapter 217*.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 73)

Is the f	acility	sub	ject to 30 TAC Chapter 213, Edwards Aquifer Rules?
	Yes	\boxtimes	No
If yes ,	is the	facil	ity located on the Edwards Aquifer Recharge Zone?
	Yes		No
If yes,	attach	a ge	eological report addressing potential recharge features.
Att	achme	ent: (Click to enter text.

TCEQ-10054 (04/02/2024) Domestic Wastewater Permit Application Technical Report

DOMESTIC WASTEWATER PERMIT APPLICATION **WORKSHEET 3.2: SURFACE LAND DISPOSAL OF EFFLUENT**

The following is required for new and major amendment permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **does not meet** the definition of a subsurface area drip dispersal system as defined in 30 TAC Chapter 222, Subsurface Area Drip Dispersal System.

Section 1. Subsurface Application (Instructions Page 74)
Identify the type of system:
□ Conventional Gravity Drainfield, Beds, or Trenches (new systems must be less than 5,000 GPD)
□ Low Pressure Dosing
□ Other, specify: <u>N/A</u>
Application area, in acres: Click to enter text.
Area of drainfield, in square feet: Click to enter text.
Application rate, in gal/square foot/day: Click to enter text.
Depth to groundwater, in feet: Click to enter text.
Area of trench, in square feet: Click to enter text.
Dosing duration per area, in hours: <u>Click to enter text.</u>
Number of beds: <u>Click to enter text.</u>
Dosing amount per area, in inches/day: Click to enter text.
Infiltration rate, in inches/hour: Click to enter text.
Storage volume, in gallons: <u>Click to enter text.</u>
Area of bed(s), in square feet: <u>Click to enter text.</u>
Soil Classification: <u>Click to enter text.</u>
Attach a separate engineering report with the information required in $30\ TAC\ S\ 309.20$, excluding the requirements of $S\ 309.20\ b(3)(A)$ and (B) design analysis which may be asked for on a case by case basis. Include a description of the schedule of dosing basin rotation.
Attachment: Click to enter text.
Section 2. Edwards Aquifer (Instructions Page 74)
Is the subsurface system over the Edwards Aquifer Recharge Zone as mapped by TCEQ?
□ Yes □ No
Is the subsurface system over the Edwards Aquifer Transition Zone as mapped by TCEQ?
□ Yes □ No
If ves to either question, the subsurface system may be prohibited by 30 TAC \$213.8. Please

call the Municipal Permits Team, at 512-239-4671, to schedule a pre-application meeting.

DOMESTIC WASTEWATER PERMIT APPLICATION **WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL** (SADDS) LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** subsurface area drip dispersal system permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that meets the definition of a subsurface area drip dispersal system as defined in 30 TAC Chapter 222, Subsurface Area Drip Dispersal System.

Se	ection 1. Administrative Information (Instructions Page 75)
Α.	Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility:
В.	<u>Click to enter text.</u> Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?
	□ Yes □ No
	If no , provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the treatment facility is located.
	Click to enter text.
C.	Owner of the subsurface area drip dispersal system: <u>Click to enter text.</u>
D.	Is the owner of the subsurface area drip dispersal system the same as the owner of the wastewater treatment facility or the site where the wastewater treatment facility is located?
	□ Yes □ No
	If no , identify the names of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.C.
	Click to enter text.
Е.	Owner of the land where the subsurface area drip dispersal system is located: <u>Click to enter text.</u>
F.	Is the owner of the land where the subsurface area drip dispersal system is located the same as owner of the wastewater treatment facility, the site where the wastewater treatment facility is located, or the owner of the subsurface area drip dispersal system? Yes No
	If no , identify the name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.E.
	Click to enter text.

Section 2. Subsurface Area Drip Dispersal System (Instructions Page

A.	Type of system
	□ Subsurface Drip Irrigation
	□ Surface Drip Irrigation
	□ Other, specify: <u>Click to enter text.</u>
В.	Irrigation operations
	Application area, in acres: Click to enter text.
	Infiltration Rate, in inches/hour: Click to enter text.
	Average slope of the application area, percent (%): Click to enter text.
	Maximum slope of the application area, percent (%): Click to enter text.
	Storage volume, in gallons: <u>Click to enter text.</u>
	Major soil series: <u>Click to enter text.</u>
	Depth to groundwater, in feet: Click to enter text.
C.	Application rate
	Is the facility located west of the boundary shown in <i>30 TAC § 222.83</i> and also using a vegetative cover of non-native grasses over seeded with cool season grasses during the winter months (October-March)?
	□ Yes □ No
	If yes, then the facility may propose a hydraulic application rate not to exceed 0.1 gal/square foot/day.
	Is the facility located east of the boundary shown in <i>30 TAC § 222.83</i> or in any part of the state when the vegetative cover is any crop other than non-native grasses?
	□ Yes □ No
	If yes , the facility must use the formula in <i>30 TAC §222.83</i> to calculate the maximum hydraulic application rate.
	Do you plan to submit an alternative method to calculate the hydraulic application rate for approval by the executive director?
	□ Yes □ No
	Hydraulic application rate, in gal/square foot/day: Click to enter text.
	Nitrogen application rate, in lbs/gal/day: Click to enter text.
D.	Dosing information
	Number of doses per day: Click to enter text.
	Dosing duration per area, in hours: <u>Click to enter text.</u>

Rest period between doses, in hours: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Number of zones: Click to enter text. Does the proposed subsurface drip irrigation system use tree vegetative cover as a crop? Yes No If yes, provide a vegetation survey by a certified arborist. Please call the Water Qualit	
□ Yes □ No	
	У
If was provide a vegetation survey by a cortified arborist Please call the Water Qualit	y
Assessment Team at (512) 239-4671 to schedule a pre-application meeting.	
Attachment: Click to enter text.	
Section 3. Required Plans (Instructions Page 75)	
A. Recharge feature plan	
Attach a Recharge Feature Plan with all information required in 30 TAC §222.79.	
Attachment: Click to enter text.	
B. Soil evaluation	
Attach a Soil Evaluation with all information required in 30 TAC §222.73.	
Attachment: Click to enter text.	
C. Site preparation plan	
Attach a Site Preparation Plan with all information required in 30 TAC §222.75.	
Attachment: Click to enter text.	
D. Soil sampling/testing	
Attach soil sampling and testing that includes all information required in <i>30 TAC</i> §222.157.	
Attachment: Click to enter text.	
Section 4. Floodway Designation (Instructions Page 76)	
A. Site location	
Is the existing/proposed land application site within a designated floodway?	
☐ Yes ☐ No	
B. Flood map Attach either the FEMA flood man or alternate information used to determine the	
Attach either the FEMA flood map or alternate information used to determine the floodway.	
Attachment: Click to enter text.	
Section 5. Surface Waters in the State (Instructions Page 76)	

A. Buffer Map

Attach a map showing appropriate buffers on surface waters in the state, water wells, and springs/seeps.

Attachment: Click to enter text.

Do you plan to request a buffer variance from water wells or waters in the state?
□ Yes □ No
If yes, then attach the additional information required in 30 TAC § 222.81(c).
Attachment: Click to enter text.
Section 6. Edwards Aquifer (Instructions Page 76)
A. Is the SADDS located over the Edwards Aquifer Recharge Zone as mapped by TCEQ?
□ Yes □ No
B. Is the SADDS located over the Edwards Aquifer Transition Zone as mapped by TCEQ?
□ Yes □ No
If yes to either question , then the SADDS may be prohibited by <i>30 TAC §213.8</i> . Please call the Municipal Permits Team at 512-239-4671 to schedule a pre-application meeting.

B. Buffer variance request

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

The following **is required** for facilities with a permitted or proposed flow of **1.0 MGD or greater**, facilities with an approved **pretreatment** program, or facilities classified as a **major** facility. See instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Toxic Pollutants (Instructions Page 78)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab □ Composite ⊠

Date and time sample(s) collected: 12/13/23 00:00

Table 4.0(1) - Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Acrylonitrile	<0.0143	< 0.0143	1	50
Aldrin	<0.00000113	<0.00000113	1	0.01
Aluminum	0.0777	0.0777	1	2.5
Anthracene	<0.00150	<0.00150	1	10
Antimony	< 0.005	< 0.005	1	5
Arsenic	0.0027	0.0027	1	0.5
Barium	0.0304	0.0304	1	3
Benzene	<0.000460	< 0.000460	1	10
Benzidine	<0.00480	< 0.00480	1	50
Benzo(a)anthracene	< 0.000173	< 0.000173	1	5
Benzo(a)pyrene	< 0.000364	<0.000364	1	5
Bis(2-chloroethyl)ether	<0.00216	< 0.00216	1	10
Bis(2-ethylhexyl)phthalate	<0.000277	<0.000277	1	10
Bromodichloromethane	0.0108	0.0108	1	10
Bromoform	<0.000633	<0.000633	1	10
Cadmium	< 0.001	< 0.001	1	1
Carbon Tetrachloride	<0.000896	<0.000896	1	2
Carbaryl	<1.85	<1.85	1	5
Chlordane*	<0.000103	<0.000103	1	0.2
Chlorobenzene	<0.000455	<0.000455	1	10

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Chlorodibromomethane	0.00472	0.00472	1	10
Chloroform	0.0272	0.0272	1	10
Chlorpyrifos	<0.0488	<0.0488	1	0.05
Chromium (Total)	< 0.003	< 0.003	1	3
Chromium (Tri) (*1)	0.004	0.004	1	N/A
Chromium (Hex)	0.005	0.005	1	3
Copper	0.0020	0.0020	1	2
Chrysene	<0.000222	<0.000222	1	5
p-Chloro-m-Cresol	< 0.00157	< 0.00157	1	10
4,6-Dinitro-o-Cresol	< 0.00144	< 0.00144	1	50
p-Cresol	< 0.00162	< 0.00162	1	10
Cyanide (*2)	0.00595	0.00595	1	10
4,4'- DDD	<0.000000814	<0.000000814	1	0.1
4,4'- DDE	<0.0000109	<0.0000109	1	0.1
4,4'- DDT	<0.0000379	<0.0000379	1	0.02
2,4-D	< 0.0000546	<0.0000546	1	0.7
Demeton (O and S)	<0.0488	<0.0488	1	0.20
Diazinon	<0.0488	<0.0488	1	0.5/0.1
1,2-Dibromoethane	< 0.000552	< 0.000552	1	10
m-Dichlorobenzene	< 0.000413	< 0.000413	1	10
o-Dichlorobenzene	< 0.000429	<0.000429	1	10
p-Dichlorobenzene	< 0.000449	< 0.000449	1	10
3,3'-Dichlorobenzidine	<0.000341	< 0.000341	1	5
1,2-Dichloroethane	< 0.000372	< 0.000372	1	10
1,1-Dichloroethylene	< 0.000738	<0.000738	1	10
Dichloromethane	< 0.00173	< 0.00173	1	20
1,2-Dichloropropane	< 0.000556	< 0.000556	1	10
1,3-Dichloropropene	< 0.00107	< 0.00107	1	10
Dicofol	<0.0000500	<0.0000500	1	1
Dieldrin	<0.000000953	<0.000000953	1	0.02
2,4-Dimethylphenol	<0.000649	< 0.000649	1	10
Di-n-Butyl Phthalate	<0.000252	<0.000252	1	10
Diuron	< 0.0514	<0.0514	1	0.09

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Endosulfan I (alpha)	<0.0000107	<0.0000107	1	0.01
Endosulfan II (beta)	<0.00000122	<0.0000122	1	0.02
Endosulfan Sulfate	<0.00000112	<0.00000112	1	0.1
Endrin	<0.00000156	<0.0000156	1	0.02
Ethylbenzene	< 0.000385	<0.000385	1	10
Fluoride	0.52	0.52	1	500
Guthion	< 0.0488	<0.0488	1	0.1
Heptachlor	<0.00000446	<0.00000446	1	0.01
Heptachlor Epoxide	< 0.00000134	<0.00000134	1	0.01
Hexachlorobenzene	< 0.000307	<0.000307	1	5
Hexachlorobutadiene	<0.000238	<0.000238	1	10
Hexachlorocyclohexane (alpha)	< 0.00000142	< 0.00000142	1	0.05
Hexachlorocyclohexane (beta)	<0.00000389	<0.00000389	1	0.05
gamma-Hexachlorocyclohexane	<0.00000299	<0.00000299	1	0.05
(Lindane)				
Hexachlorocyclopentadiene	< 0.00458	<0.00458	1	10
Hexachloroethane	< 0.000526	< 0.000526	1	20
Hexachlorophene	< 0.0242	<0.0242	1	10
Lead	< 0.0005	< 0.0005	1	0.5
Malathion	< 0.0488	<0.0488	1	0.1
Mercury	0.00000117	0.00000117	1	0.005
Methoxychlor	<0.00000390	<0.00000390	1	2
Methyl Ethyl Ketone			1	50
Mirex	<0.0000200	<0.0000200	1	0.02
Nickel	0.0025	0.0025	1	2
Nitrate-Nitrogen	16.9	16.9	1	100
Nitrobenzene	< 0.00166	<0.00166	1	10
N-Nitrosodiethylamine	<0.00175	<0.00175	1	20
N-Nitroso-di-n-Butylamine	<0.00149	<0.00149	1	20
Nonylphenol	<0.0287	<0.0287	1	333
Parathion (ethyl)	<0.0488	<0.0488	1	0.1
Pentachlorobenzene	<0.00107	<0.00107	1	20
Pentachlorophenol	<0.000234	<0.000234	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Phenanthrene	< 0.00142	< 0.00142	1	10
Polychlorinated Biphenyls (PCB's) (*3)	< 0.000100	< 0.000100	1	0.2
Pyridine	< 0.00264	< 0.00264	1	20
Selenium	< 0.005	< 0.005	1	5
Silver	< 0.0005	< 0.0005	1	0.5
1,2,4,5-Tetrachlorobenzene	< 0.00132	<0.00132	1	20
1,1,2,2-Tetrachloroethane	< 0.000470	< 0.000470	1	10
Tetrachloroethylene	< 0.000655	<0.000655	1	10
Thallium	< 0.0005	< 0.0005	1	0.5
Toluene	< 0.000475	< 0.000475	1	10
Toxaphene	< 0.0000769	<0.000769	1	0.3
2,4,5-TP (Silvex)	< 0.0000427	<0.0000427	1	0.3
Tributyltin (see instructions for explanation)	N/A		1	0.01
1,1,1-Trichloroethane	< 0.000585	<0.000585	1	10
1,1,2-Trichloroethane	< 0.000411	<0.000411	1	10
Trichloroethylene	< 0.00150	< 0.00150	1	10
2,4,5-Trichlorophenol	<0.00200	<0.00200	1	50
TTHM (Total Trihalomethanes)			1	10
Vinyl Chloride	<0.000428	<0.000428	1	10
Zinc	0.0487	0.0487	1	5

^(*1) Determined by subtracting hexavalent Cr from total Cr.

^(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

^(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab □ Composite ⊠

Date and time sample(s) collected: 12.13.23 / 0.01-23.59

Table 4.0(2)A - Metals, Cyanide, and Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Antimony	< 0.005	< 0.005	1	5
Arsenic	0.0027	0.0027	1	0.5
Beryllium	< 0.0005	< 0.0005	1	0.5
Cadmium	<0.001	< 0.001	1	1
Chromium (Total)	<0.003	< 0.003	1	3
Chromium (Hex)	0.004	0.004	1	3
Chromium (Tri) (*1)	0.005	0.005	1	N/A
Copper	0.0020	0.0020	1	2
Lead	< 0.0005	< 0.0005	1	0.5
Mercury	0.00000117	0.00000117	1	0.005
Nickel	0.0025	0.0025	1	2
Selenium	< 0.005	< 0.005	1	5
Silver	< 0.0005	< 0.0005	1	0.5
Thallium	< 0.0005	< 0.0005	1	0.5
Zinc	0.0487	0.0487	1	5
Cyanide (*2)	0.00595	0.00595	1	10
Phenols, Total	< 0.00580	<0.00580	1	10

^(*1) Determined by subtracting hexavalent Cr from total Cr.

^(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B - Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Acrolein	< 0.0111	<0.0111	1	50
Acrylonitrile	< 0.0143	<0.0143	1	50
Benzene	< 0.000460	<0.000460	1	10
Bromoform	<0.000633	< 0.000633	1	10
Carbon Tetrachloride	<0.000896	<0.000896	1	2
Chlorobenzene	< 0.000455	<0.000455	1	10
Chlorodibromomethane	0.00472	0.00472	1	10
Chloroethane	<0.00198	<0.00198	1	50
2-Chloroethylvinyl Ether	<0.000753	<0.000753	1	10
Chloroform	0.0272	0.0272	1	10
Dichlorobromomethane [Bromodichloromethane]	0.0108	0.0108	1	10
1,1-Dichloroethane	<0.000635	<0.000635	1	10
1,2-Dichloroethane	< 0.000372	<0.000372	1	10
1,1-Dichloroethylene	<0.000738	<0.000738	1	10
1,2-Dichloropropane	<0.000556	<0.000556	1	10
1,3-Dichloropropylene	< 0.00107	< 0.00107	1	10
[1,3-Dichloropropene]				
1,2-Trans-Dichloroethylene	<0.000368	<0.000368	1	10
Ethylbenzene	<0.000385	<0.000385	1	10
Methyl Bromide	< 0.00142	< 0.00142	1	50
Methyl Chloride	< 0.00204	< 0.00204	1	50
Methylene Chloride	< 0.00173	< 0.00173	1	20
1,1,2,2-Tetrachloroethane	< 0.000470	< 0.000470	1	10
Tetrachloroethylene	<0.000655	<0.000655	1	10
Toluene	< 0.000475	< 0.000475	1	10
1,1,1-Trichloroethane	<0.000585	<0.000585	1	10
1,1,2-Trichloroethane	<0.000411	<0.000411	1	10
Trichloroethylene	< 0.00150	<0.00150	1	10
Vinyl Chloride	<0.000428	<0.000428	1	10

Table 4.0(2)C - Acid Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
2-Chlorophenol	< 0.000649	<0.000649	1	10
2,4-Dichlorophenol	< 0.000314	<0.000314	1	10
2,4-Dimethylphenol	< 0.000649	<0.000649	1	10
4,6-Dinitro-o-Cresol	< 0.00144	< 0.00144	1	50
2,4-Dinitrophenol	< 0.00161	< 0.00161	1	50
2-Nitrophenol	< 0.00167	< 0.00167	1	20
4-Nitrophenol	< 0.00491	< 0.00491	1	50
P-Chloro-m-Cresol	< 0.00157	<0.00157	1	10
Pentalchlorophenol	<0.000234	<0.000234	1	5
Phenol	<0.000423	<0.000423	1	10
2,4,6-Trichlorophenol	< 0.00142	<0.00142	1	10

Table 4.0(2)D - Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Acenaphthene	< 0.00139	<0.00139	1	10
Acenaphthylene	< 0.00141	< 0.00141	1	10
Anthracene	< 0.00150	< 0.00150	1	10
Benzidine	<0.00480	< 0.00480	1	50
Benzo(a)Anthracene	<0.000173	< 0.000173	1	5
Benzo(a)Pyrene	< 0.000364	< 0.000364	1	5
3,4-Benzofluoranthene	<0.00204	< 0.00204	1	10
Benzo(ghi)Perylene	<0.00268	<0.00268	1	20
Benzo(k)Fluoranthene	< 0.000375	<0.000375	1	5
Bis(2-Chloroethoxy)Methane	< 0.00176	< 0.00176	1	10
Bis(2-Chloroethyl)Ether	< 0.00216	<0.00216	1	10
Bis(2-Chloroisopropyl)Ether	< 0.00179	<0.00179	1	10
Bis(2-Ethylhexyl)Phthalate	<0.000277	<0.000277	1	10
4-Bromophenyl Phenyl Ether	< 0.000256	< 0.000256	1	10
Butyl benzyl Phthalate	<0.000337	< 0.000337	1	10
2-Chloronaphthalene	<0.000462	< 0.000462	1	10
4-Chlorophenyl phenyl ether	<0.00128	<0.00128	1	10
Chrysene	< 0.000222	<0.000222	1	5
Dibenzo(a,h)Anthracene	< 0.000246	< 0.000246	1	5
1,2-(o)Dichlorobenzene	< 0.000429	< 0.000429	1	10
1,3-(m)Dichlorobenzene	< 0.000413	< 0.000413	1	10
1,4-(p)Dichlorobenzene	< 0.000449	< 0.000449	1	10
3,3-Dichlorobenzidine	<0.000341	< 0.000341	1	5
Diethyl Phthalate	< 0.00159	< 0.00159	1	10
Dimethyl Phthalate	<0.000299	<0.000299	1	10
Di-n-Butyl Phthalate	<0.000252	<0.000252	1	10
2,4-Dinitrotoluene	<0.00131	<0.00131	1	10
2,6-Dinitrotoluene	< 0.00161	<0.00161	1	10
Di-n-Octyl Phthalate	<0.000373	<0.000373	1	10
1,2-Diphenylhydrazine (as Azobenzene)	<0.00149	<0.00149	1	20
Fluoranthene	< 0.00159	< 0.00159	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (μg/l)
Fluorene	<0.00163	< 0.00163	1	10
Hexachlorobenzene	<0.000307	< 0.000307	1	5
Hexachlorobutadiene	<0.000238	<0.000238	1	10
Hexachlorocyclo-pentadiene	<0.00458	< 0.00458	1	10
Hexachloroethane	<0.000526	< 0.000526	1	20
Indeno(1,2,3-cd)pyrene	<0.00229	< 0.00229	1	5
Isophorone	< 0.00164	< 0.00164	1	10
Naphthalene	<0.000542	< 0.000542	1	10
Nitrobenzene	< 0.00166	< 0.00166	1	10
N-Nitrosodimethylamine	<0.00202	< 0.00202	1	50
N-Nitrosodi-n-Propylamine	<0.00288	<0.00288	1	20
N-Nitrosodiphenylamine	<0.00181	< 0.00181	1	20
Phenanthrene	<0.00142	< 0.00142	1	10
Pyrene	<0.000178	< 0.000178	1	10
1,2,4-Trichlorobenzene	<0.00161	<0.00161	1	10

Table 4.0(2)E - Pesticides

.0.00000112	Conc. (µg/l)		(µg/l)
<0.00000113	<0.00000113	1	0.01
<0.0000142	<0.0000142	1	0.05
<0.0000389	<0.00000389	1	0.05
<0.0000299	<0.00000299	1	0.05
<0.0000245	<0.00000245	1	0.05
< 0.000103	<0.000103	1	0.2
<0.0000379	<0.00000379	1	0.02
<0.0000109	<0.0000109	1	0.1
<0.000000814	<0.000000814	1	0.1
<0.00000953	<0.000000953	1	0.02
<0.0000107	<0.0000107	1	0.01
<0.0000122	<0.0000122	1	0.02
<0.0000112	<0.00000112	1	0.1
<0.0000156	<0.0000156	1	0.02
<0.0000118	<0.0000118	1	0.1
<0.0000446	<0.00000446	1	0.01
<0.0000134	<0.0000134	1	0.01
<0.0000125	<0.0000125	1	0.2
<0.0000780	<0.00000780	1	0.2
<0.0000125	<0.0000125	1	0.2
<0.0000125	<0.0000125	1	0.2
<0.0000125	<0.0000125	1	0.2
<0.0000780	<0.0000780	1	0.2
<0.000125	<0.0000125	1	0.2
<0.000769	<0.0000769	1	0.3
	0.00000389 0.00000299 0.00000245 0.00000379 0.00000109 0.000000107 0.00000122 0.00000112 0.00000118 0.00000134 0.00000125 0.00000125 0.00000125 0.00000125 0.00000125 0.00000780 0.00000125	0.00000142 <0.00000142	0.00000142 <0.00000142

^{*} For PCBS, if all are non-detects, enter the highest non-detect preceded by a "<".

Section 3. Dioxin/Furan Compounds A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply. 2,4,5-trichlorophenoxy acetic acid Common Name 2,4,5-T, CASRN 93-76-5 2-(2,4,5-trichlorophenoxy) propanoic acid Common Name Silvex or 2,4,5-TP, CASRN 93-72-1 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate Common Name Erbon, CASRN 136-25-4 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate Common Name Ronnel, CASRN 299-84-3 2,4,5-trichlorophenol Common Name TCP, CASRN 95-95-4 hexachlorophene Common Name HCP, CASRN 70-30-4 For each compound identified, provide a brief description of the conditions of its/their presence at the facility. N/A

В.	Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin
	(TCDD) or any congeners of TCDD may be present in your effluent?

□ Yes ⊠ No

If **yes**, provide a brief description of the conditions for its presence.

Click to enter text.

C.	If any of the compounds in Subsection A or B are present, complete Table 4.0(2)F.
	For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab □ Composite □

Date and time sample(s) collected: N/A

Table 4.0(2)F - Dioxin/Furan Compounds

Compound	Toxic Equivalenc y Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: TOXICITY TESTING REQUIREMENTS

The following **is required** for facilities with a current operating design flow of **1.0 MGD or greater**, with an EPA-approved **pretreatment** program (or those required to have one under 40 CFR Part 403), or are required to perform Whole Effluent Toxicity testing. See instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Required Tests (Instructions Page 88)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: <u>18</u> 48-hour Acute: <u>10</u>

Section 2. Toxicity Reduction Evaluations (TREs)

Has this i	facility	compl	eted a	ı TRE ir	ı the	e past	four	and	a ha	alf	years?	Or is	the	facility	currer	ıtly
performi	ng a TR	E?												-		

□ Yes ⊠ No

If yes, describe the progress to date, if applicable, in identifying and confirming the toxicant.

Click to enter text.			

Section 3. Summary of WET Tests

If the required biomonitoring test information has not been previously submitted via both the Discharge Monitoring Reports (DMRs) and the Table 1 (as found in the permit), provide a summary of the testing results for all valid and invalid tests performed over the past four and one-half years. Make additional copies of this table as needed.

Table 5.0(1) Summary of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal
	N/A- see DMR		

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following **is required** for **all publicly owned treatment works**.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 11

Average Daily Flows, in MGD: 0.49

Significant IUs - non-categorical:

Number of IUs: 18

Average Daily Flows, in MGD: 2.21

Other IUs:

Number of IUs: N/A

Average Daily Flows, in MGD: N/A

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

□ Yes ⊠ No

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

Click to enter text.

	In the past three years, has your POTW experienced pass through (see instructions)?					
	□ Yes ⊠ No					
	If yes, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.					
	Click to enter text.					
ח	Directive active and many angular					
υ.	Pretreatment program Does your POTW have an approved pretreatment program?					
	Yes No					
	If yes, complete Section 2 only of this Worksheet.					
	Is your POTW required to develop an approved pretreatment program?					
	☐ Yes ☐ No					
	If yes, complete Section 2.c. and 2.d. only, and skip Section 3.					
	If no to either question above , skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.					
Se	ection 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)					
A.	Substantial modifications					
	Have there been any substantial modifications to the approved pretreatment program that have not been submitted to the TCEQ for approval according to 40 CFR §403.18?					
	□ Yes ⊠ No					
	If yes , identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.					
	N/A					
]					

C. Treatment plant pass through

B. Non-substantial modificat	ations
-------------------------------------	--------

Have there been any non-substantial modifications to the approved pretreated program that have not been submitted to TCEQ for review and acceptance?				
	□ Yes ⊠ No			
If yes, identify all non-substantial modifications that have not been submitted tincluding the purpose of the modification.				
	Click to enter text.			
C.	Effluent parameters above the MAL			

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

Table 6.0(1) - Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
D. E. Coli	2,420	399	CFU/100ml	5/31/2022

E. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

Yes 🗵 No

If yes, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

	Click to enter text.
Se	ction 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)
Α.	General information
	Company Name: <u>Click to enter text.</u>
	SIC Code: Click to enter text.
	Contact name: Click to enter text.
	Address: Click to enter text.
	City, State, and Zip Code: <u>Click to enter text.</u>
	Telephone number: <u>Click to enter text.</u>
	Email address: <u>Click to enter text.</u>
B.	Process information
	Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).
	N/A
C.	Product and service information
	Provide a description of the principal product(s) or services performed.
	Click to enter text.

	See the Instructions for definitions of "process" and "non-process wastewater."										
	Process Wastewater:										
	Discharge, in gallons/day: Click to enter text.										
	Discharge Type: \square Continuous \square Batch \square Intermittent										
	Non-Process Wastewater:										
	Discharge, in gallons/day: Click to enter text.										
	Discharge Type: Continuous Batch Intermittent										
E.	Pretreatment standards										
	Is the SIU or CIU subject to technically based local limits as defined in the <i>i</i> nstructions?										
	□ Yes □ No										
	Is the SIU or CIU subject to categorical pretreatment standards found in 40 CFR Parts 405 - 471 ?										
	□ Yes □ No										
	If subject to categorical pretreatment standards , indicate the applicable category and subcategory for each categorical process.										
	Category: Subcategories: Click to enter text.										
	Click or tap here to enter text. <u>Click to enter text.</u>										
	Category: Click to enter text.										
	Subcategories: <u>Click to enter text.</u>										
	Category: Click to enter text.										
	Subcategories: <u>Click to enter text.</u>										
	Category: Click to enter text.										
	Subcategories: <u>Click to enter text.</u>										
	Category: Click to enter text.										
	Subcategories: <u>Click to enter text.</u>										
F.	Industrial user interruptions										
	Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?										
	□ Yes □ No										
	If yes , identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.										
	Click to enter text.										

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ IUC Permits Team Radioactive Materials Division MC-233 PO Box 13087 Austin, Texas 78711-3087 512-239-6466

For TCEQ Use Only	
Reg. No	
Date Received	
Date Authorized	

Section 1. General Information (Instructions Page 92)

1.	TCEQ Program	Area
----	--------------	------

Program Area (PST, VCP, IHW, etc.): Click to enter text.

Program ID: Click to enter text.

Contact Name: <u>Click to enter text.</u> Phone Number: <u>Click to enter text.</u>

2. Agent/Consultant Contact Information

Contact Name: Click to enter text.

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone Number: Click to enter text.

3. Owner/Operator Contact Information

□ Owner □ Operator

Owner/Operator Name: Click to enter text.

Contact Name: Click to enter text.

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone Number: Click to enter text.

4. Facility Contact Information

Facility Name: Click to enter text.

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Location description (if no address is available): Click to enter text.

Facility Contact Person: Click to enter text.

Phone Number: Click to enter text.

5.	Latitude and Longitude, in degrees-influtes-seconds
	Latitude: Click to enter text.
	Longitude: Click to enter text.
	Method of determination (GPS, TOPO, etc.): Click to enter text.
	Attach topographic quadrangle map as attachment A.
6.	Well Information
	Type of Well Construction, select one:
	□ Vertical Injection
	□ Subsurface Fluid Distribution System
	□ Infiltration Gallery
	□ Temporary Injection Points
	□ Other, Specify: <u>Click to enter text.</u>
	Number of Injection Wells: Click to enter text.
7.	Purpose
	Detailed Description regarding purpose of Injection System:
	Click to enter text.
	Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)
8.	Water Well Driller/Installer
	Water Well Driller/Installer Name: Click to enter text.
	City, State, and Zip Code: <u>Click to enter text.</u>
	Phone Number: Click to enter text.
	License Number: <u>Click to enter text.</u>
ectior	1 2. Proposed Down Hole Design
	diagram signed and sealed by a licensed engineer as Attachment C.
	(1) - Down Hole Design Table
	(1) Down Hole Design Table

Та

Name of String	Size	Setting Depth	Sacks Cement/Grout - Slurry Volume - Top of Cement	Hole Size	Weight (lbs/ft) PVC/Steel
Casing					
Tubing					
Screen					

Section 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: <u>Click to enter text.</u> System(s) Construction: Click to enter text.

Section 4.	Site Hydroge	eological and In	jection Zone Data
	~-~~ / · ~ //		

- 1. Name of Contaminated Aquifer: Click to enter text.
- 2. Receiving Formation Name of Injection Zone: Click to enter text.
- 3. Well/Trench Total Depth: Click to enter text.
- **4.** Surface Elevation: Click to enter text.
- **5.** Depth to Ground Water: <u>Click to enter text.</u>
- **6.** Injection Zone Depth: Click to enter text.
- 7. Injection Zone vertically isolated geologically? ☐ Yes ☐ No Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: Click to enter text.

Thickness: Click to enter text.

- **8.** Provide a list of contaminants and the levels (ppm) in contaminated aquifer Attach as Attachment E.
- **9.** Horizontal and Vertical extent of contamination and injection plume Attach as Attachment F.
- **10.** Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc. Attach as Attachment G.
- **11.** Injection Fluid Chemistry in PPM at point of injection Attach as Attachment H.
- 12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: Click to enter text.
- 13. Maximum injection Rate/Volume/Pressure: Click to enter text.
- **14.** Water wells within 1/4 mile radius (attach map as Attachment I): Click to enter text.
- 15. Injection wells within 1/4 mile radius (attach map as Attachment J): <u>Click to enter text.</u>
- **16.** Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): Click to enter text.
- 17. Sampling frequency: Click to enter text.
- **18.** Known hazardous components in injection fluid: Click to enter text.

Section 5. Site History

- **1.** Type of Facility: <u>Click to enter text.</u>
- 2. Contamination Dates: Click to enter text.
- 3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations (attach as Attachment L): <u>Click to enter text.</u>
- **4.** Previous Remediation (attach results of any previous remediation as attachment M): Click to enter text.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Class V Injection Well Designations

- 5A07 Heat Pump/AC return (IW used for groundwater to heat and/or cool buildings)
- 5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
- 5D02 Storm Water Drainage (IW designed for the disposal of rain water)
- 5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- 5F01 Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by ground water withdrawal)
- 5W09 Untreated Sewage
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTTP disposal
- 5W20 Industrial Process Waste Disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- 5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, and/or fill sections of a mine)
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aguifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
- 5X27 Other Wells
- 5X28 Motor Vehicle Waste Disposal Wells (IW used to dispose of waste from a motor vehicle site These are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)



TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason fo	r Submis	sion (If other is c	hecked please de	escribe in s	space _l	provide	ed.)				
New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)											
□ Renewa	l (Core Da	ta Form should b	e submitted with	the renew	al form	1)		Other			
2. Customer	Referenc	e Number <i>(if i</i> ss		ollow this lin			3. R	egulated	d Entity Refere	nce Number (if issued)
CN 6001	31940		<u>fo</u>	r CN or RN Central Ro			RI	N 1020	097235		
SECTION	II: Cu	stomer Info	<u>rmation</u>								
4. General C	ustomer I	nformation	5. Effective Da	te for Cus	stome	r Infor	matio	n Upda	tes (mm/dd/yyy	y) 07/01	/2024
☐ New Cust☐ Change in		ne (Verifiable wit		late to Cus						•	Entity Ownership
				<u>·</u>							active with the
Texas Sec	retary of	f State (SOS)	or Texas Con	nptroller	of P	ublic	Acc	ounts	(CPA).		
6. Customer	Legal Nar	ne (If an individual	, print last name fir	st: eg: Doe,	John)			If new Cu	ustomer, enter p	revious Custom	er below:
City of W	aco										
7. TX SOS/CI	PA Filing	Number	8. TX State Tax	X ID (11 digi	ts)		!	9. Feder	ral Tax ID (9 digit	s) 10. DUN	S Number (if applicable)
11. Type of C	Customer:	☐ Corporati	on		Individ	lual	<u> </u>	Pa	artnership: 🔲 Ge	eneral 🗆 Limited	
		County Federal				ropriet	orshi		Other:		
12. Number of 0-20									pendently Owi		ated?
	_	oposed or Actual) –					this f				
Owner	•	Operat				opera					
Occupatio	nal Licens	= '	nsible Party					pplicant	d Other:		
	PO Bo	x 2570									
15. Mailing Address:	300 A	ustin Ave									
Addicoo.	City	Waco		State	TX		ZIP	767	02	ZIP + 4	
16. Country	Mailing In	formation (if outsi	de USA)	•		17. E	-Mail	Addres	SS (if applicable)		,
18. Telephon	e Numbe	r	19). Extensi	on or (Code			20. Fax Num	nber (if applica	ble)
()	-								()	-	
SECTION III: Regulated Entity Information											
		_	-		tv" is se	elected	l belo	w this fo	rm should be a	ccompanied by	a permit application)
	21. General Regulated Entity Information (If 'New Regulated Entity" is selected below this form should be accompanied by a permit application) ☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information										
The Regula	ated Ent	ity Name sub	mitted may b	e update	ed in	order	to n	neet T	CEQ Agency	Data Stand	dards (removal
		ndings such									
-		ame (Enter name	of the site where th	e regulated	action	is takin	g plac	e.)			
City of Waco Central WWTP											

TCEQ-10400 (02/21) Page 1 of 2

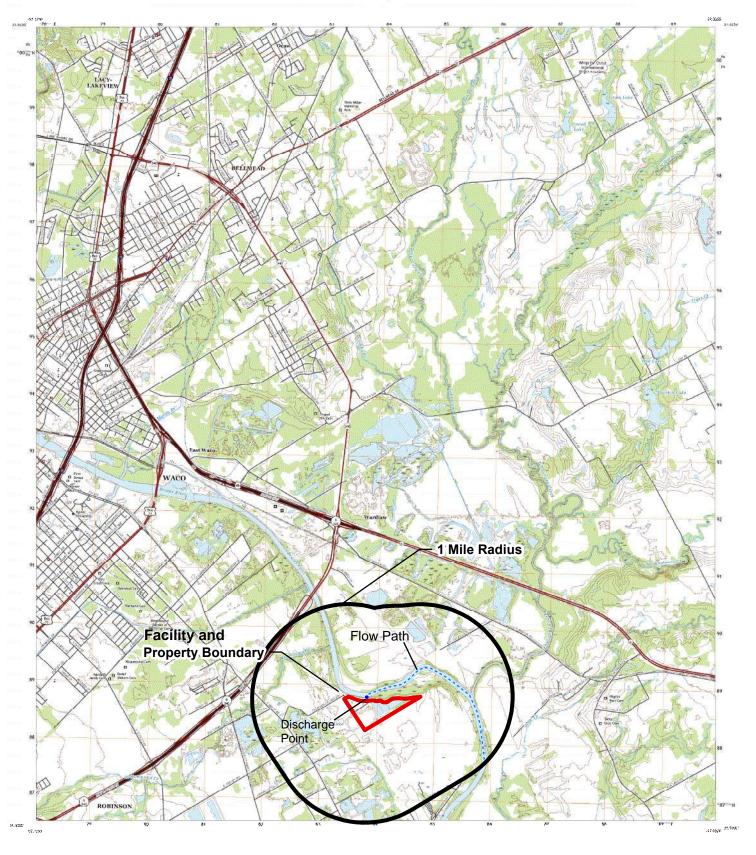
23. Street Address	s of	1147	Γreatm	nent Pla	ant F	Road									
the Regulated Ent							480-								
(No PO Boxes)	C	ity	Wa	ico		State	T	X	ZIP	70	6706	z	IP + 4	Fig. 1	
24. County	N	Ac Len	nan C	County						50000	700.00		200		
25. Description to Physical Location	25. Description to Enter Physical Location Description if no street address is provided. Physical Location:														
26. Nearest City										Sta	ite		Nea	rest ZIP	(
								200							Code
27. Latitude (N) In	Decimal	:		1796				28. Lc	ongitude (W	/) Ir	Decimal:	97.	06261		
Degrees	M	inutes	31		Secon			Degree			Minutes			Seconds	
31			31			04.65			97)3			5.39 -
29. Primary SIC Co	ode (4 digi	ts) 30	. Secon	dary SIC	Cod	e (4 digits)		Primar or 6 digits)	y NAICS Co	ode	32. Se (5 or 6		dary NAI	CS Code	e
				ASSESSED TO SESSED TO SESS				1320				u.g.to)		- 1 <u>1.00</u> 2	
33. What is the Pri	imary Bu	siness	of this e	entity?	(Do no	ot repeat the SIC			ription.)					_	
Municipality -	Waster	water '	Treatn	nent											
						A 500 VAY		PO E	3ox 2570		*****				-
34. Mailing								300 A	ustin Ave				*********		
Address:		City	1	Waco		State		TX	ZIP		76702	T 2	ZIP + 4		
35. E-Mail Ad	dress:		TENNESSE M												
36. T	elephone	Numbe	er		- (37. Extension	on or	Code			38. Fax Nu	mber	(if appli	cable)	
(.	254) 750	-8040					(254) 750-7039								
9. TCEQ Programs	and ID N	umbers	Check a	ll Program	s and	write in the pe	rmits/	/registrati	on numbers i	that	will be affected	by the	updates	submitted	on this
orm. See the Core Data	Form insti	ructions f	or additio	onal guida	ice.	Edwards Ami	:£		C wissis				المناب ما الما	l lama ada	16/1-
Dam Safety]	Distric	cts			Edwards Aqu 	HIEF		□ Emissio	ns II	nventory Air		Industrial	Hazardoi	us waste
☐ Municipal Solid-We	aste .	New §	Source R	eview Air	irOSSF				Petroleum Storage Tank		Storage Tank	_	PWS		
-					\perp										
⊠ Sludge —	-	Storm	Water		+	Title V Air			Tires				Used Oil		
WQ0011071001					+-				ш						
☐ Voluntary Cleanup	1	ΓXR05 ⊠ Waste	Water		$\dagger \Box$	Wastewater /	gric	ulture	☐ Water R	lig	S		Other:		
	7	W_{Q00}^{-1}	107100)1											
SECTION IV:	Prepa	rer I	nforn	nation								*,			
40. Allen W	oelke.	P.E.	100				41	. Title	Vice I	Pre	sident				
Name: Anen W	50 May 1	Various Screen	do	44. Fa	v Mun	nhor		•	il Address						
(512) 346-1100		LXLICO	ue	1	V IAMI	IIDEI			ad@cdm	cn	ith com				
		_000		1	<i>!</i>		·	VOCIKO	adwedii	1911	inai.com			-	
6. By my signature	ECTION V: Authorized Signature 6. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have gnature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers centified in field 39.														
Company:	City of Wa	aco					Jo	ob Title:	C	111	MAHAGIE	R			
Name (In Print):	BR	ADLE	4 FOR	D					4 30 202		Phone:		4)750-5	1640	10000-10000-1
Signature:		4	220								Date:	7	12/2	ч	TO BANGA AND PROPERTY OF THE REAL PROPERTY OF THE PROPERTY OF
									,	44					

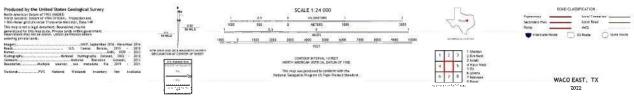
TCEQ-10400 (02/21)

Attachment B

USGS 7.5 Minute Quadrangle Map



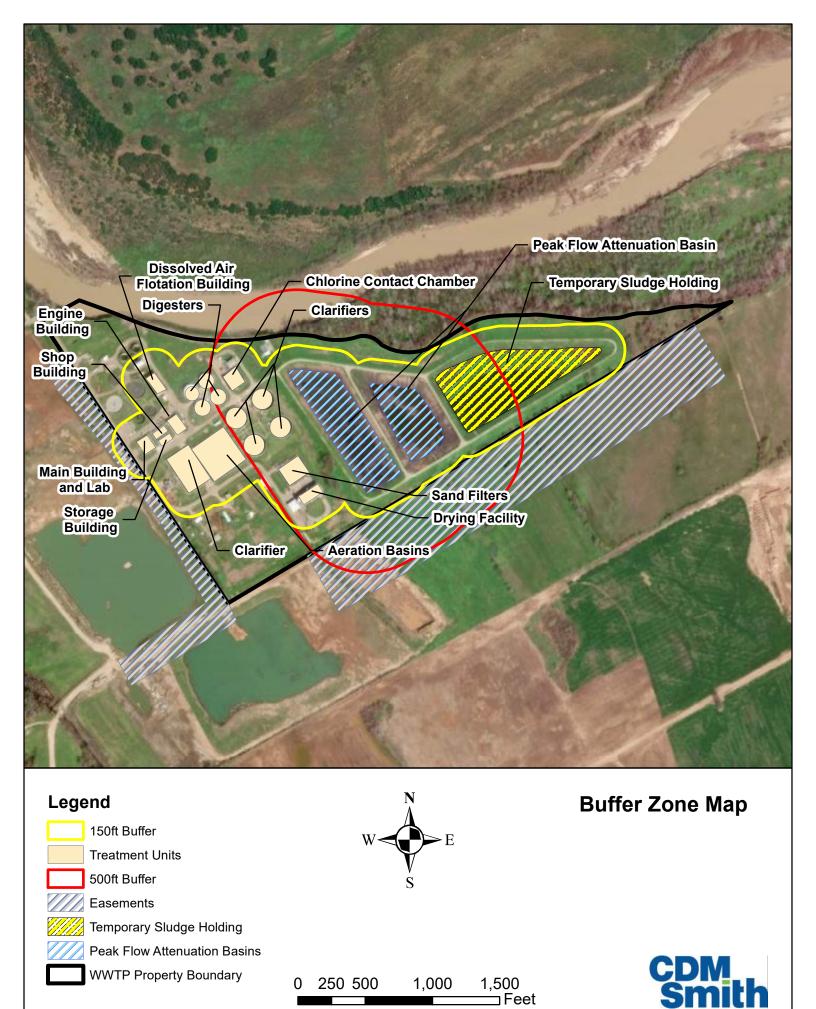




Attachment E

Buffer Zone Map



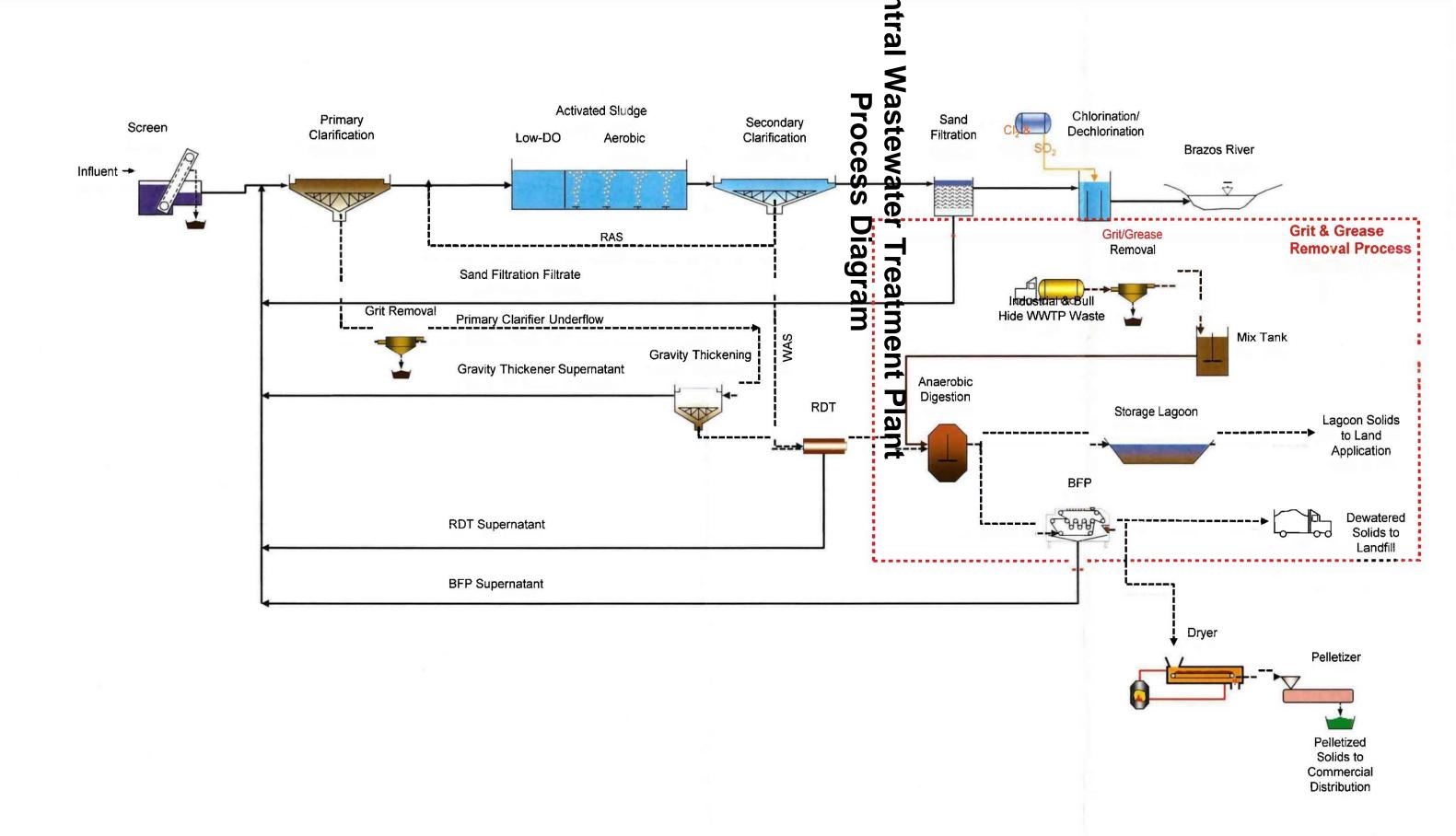


Attachment D

Process Flow Diagram



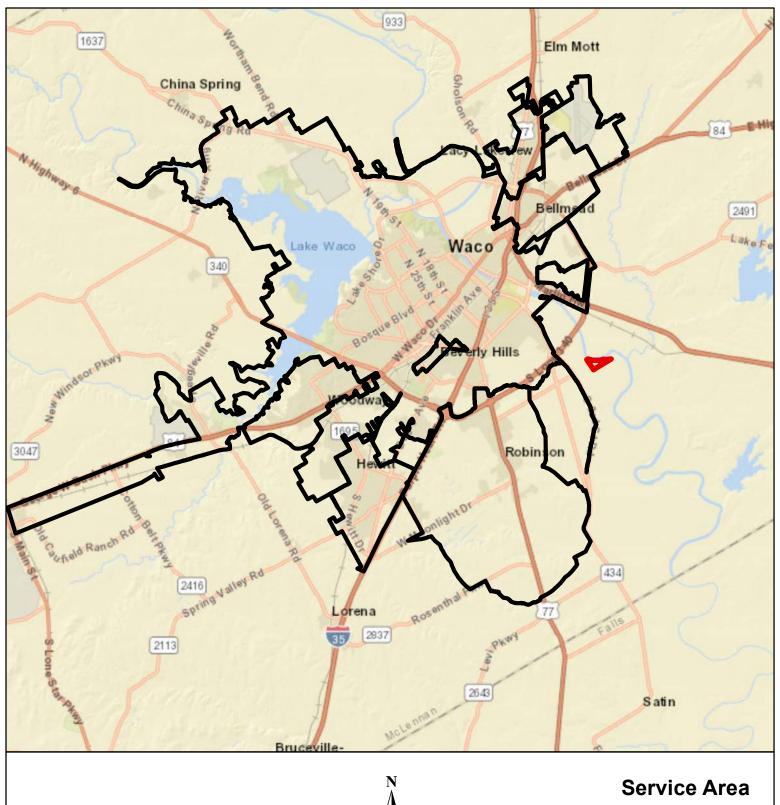


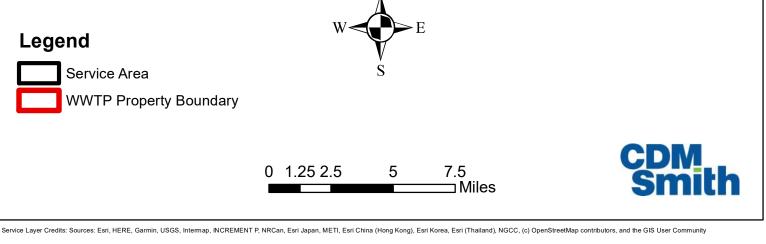


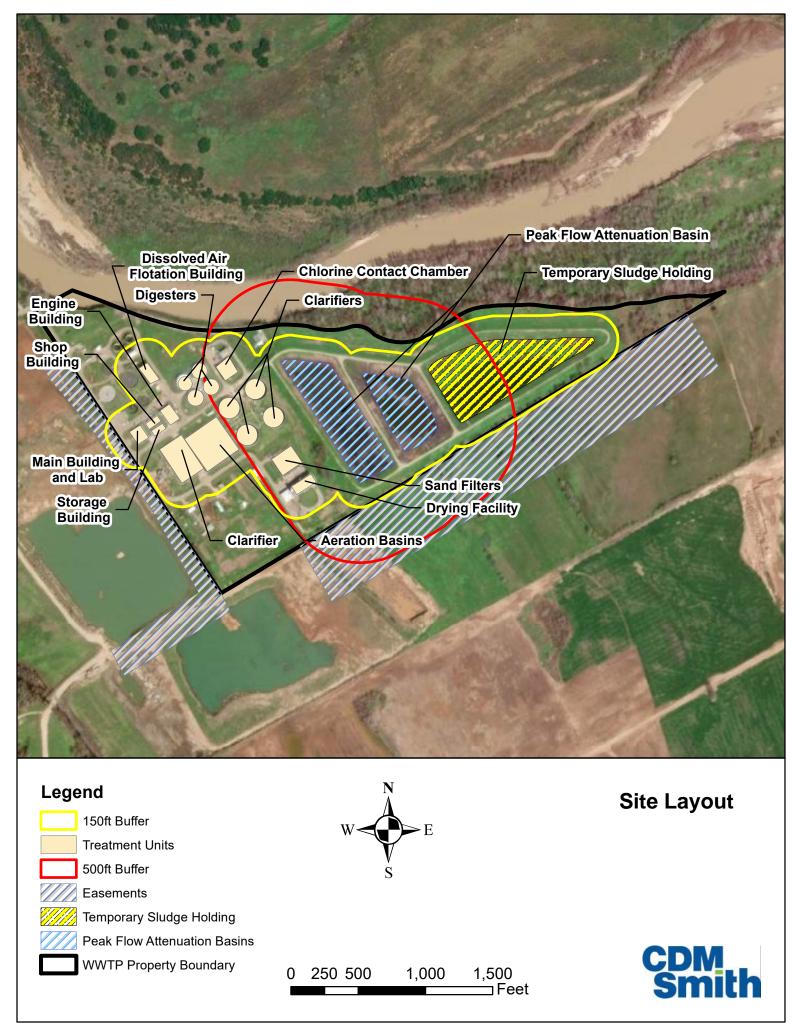
Attachment E

WWTP Site Layout and Service Area









Attachment G

General Highway Map







General Highway Map

Legend



Temporary Sludge Holding



Peak Flow Attenuation Basins



WWTP Property Boundary

0 7501,500

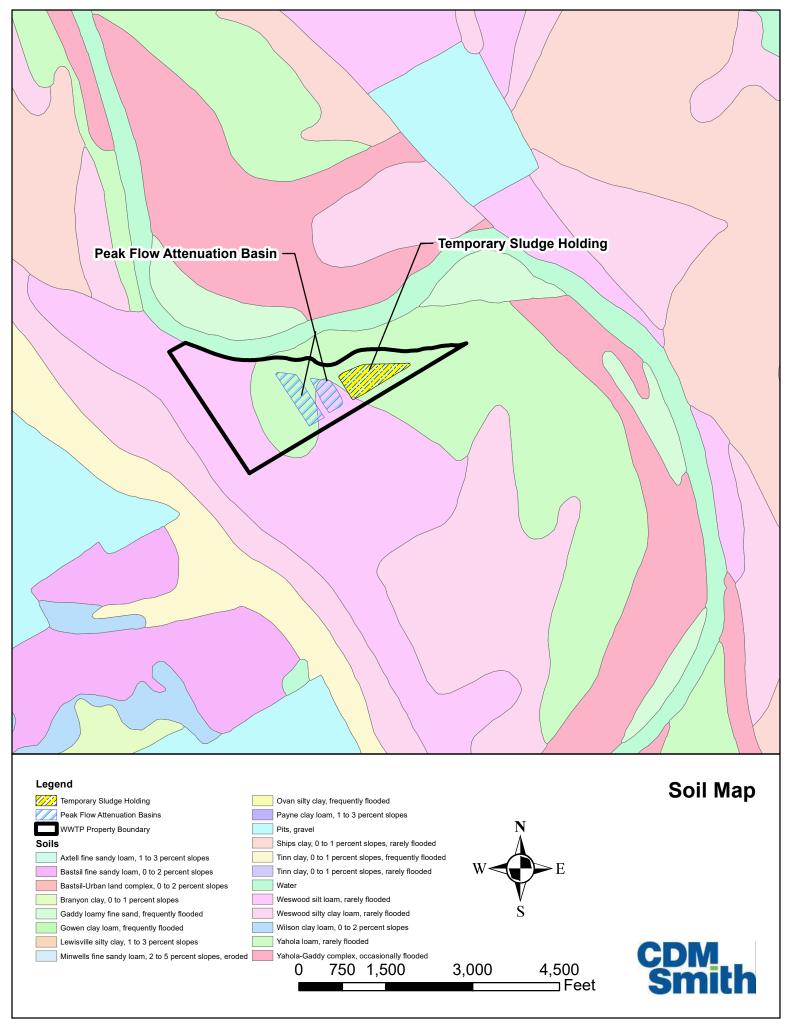
3,000

4,500 ____Feet CDM Smith

Attachment H

USDA Soil Map

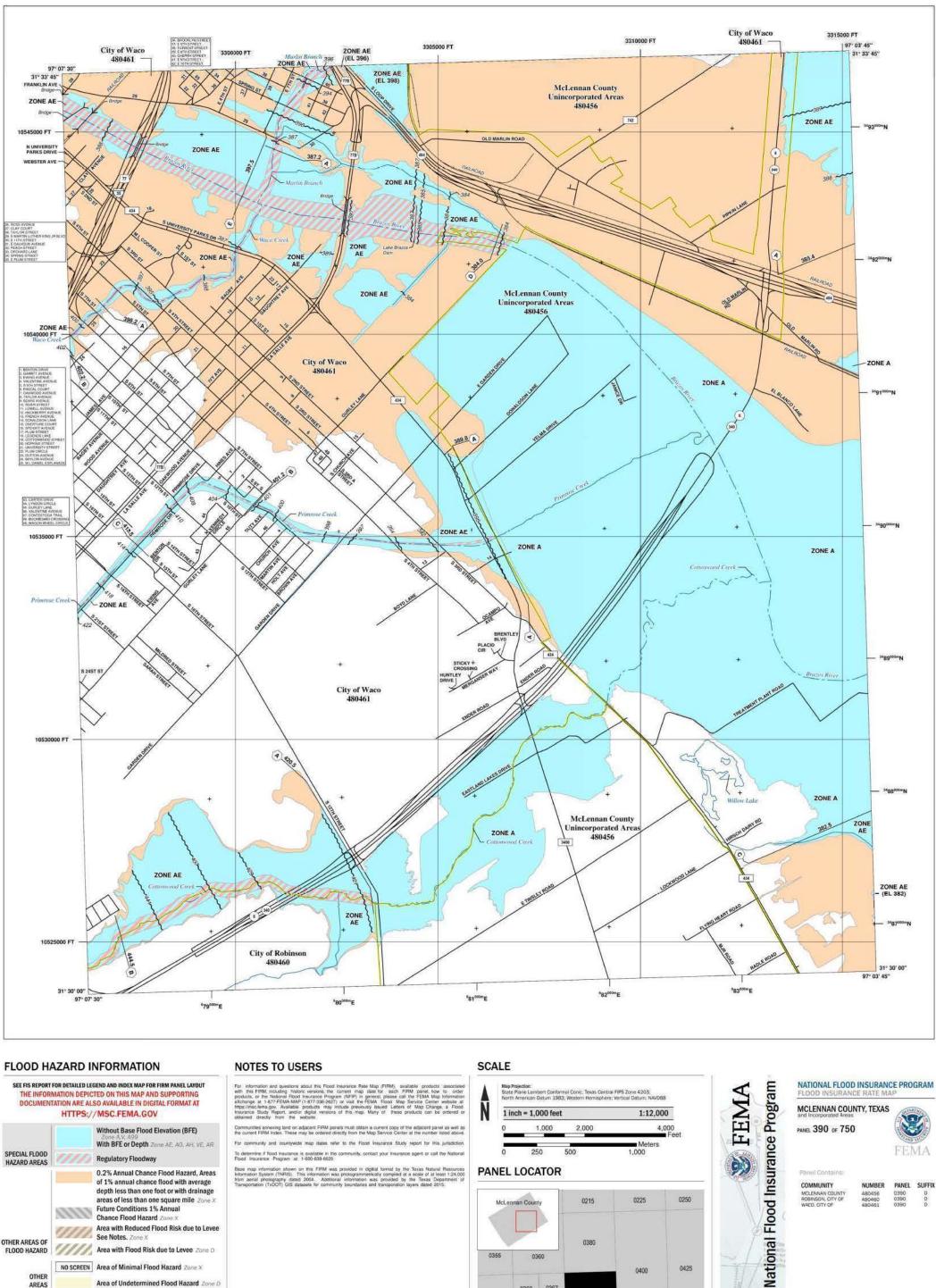


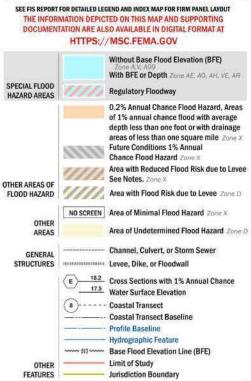


Attachment I

FEMA FIRM Map





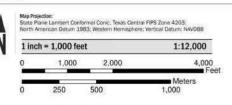


information and questions about this Food Insurance Rate Map (FIRM), available products associated in this FIRM, including historic versions, the current map date for each FIRM panel, how to order ducts, or the National Flood Insurance Program (NFP) in general, places call the FERM App Information through at 1-877-FEMA-MAP (1-977-336-2627) or visit the FERM. Flood Map Service Center website at scillent formation, Available products may include proviously issued Letters of Map Change, a Flood unice Study Report and/or digital versions of this map. Many of these products can be ordered united directly from the website.

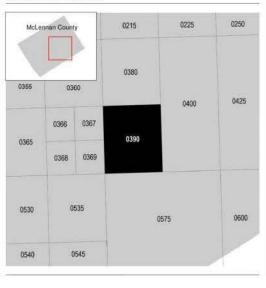
Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well a the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above For community and countywide map dates refer to the Flood insurance Study report for this jurisdiction

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown or this FIRM was provided in digitial format by the Texas Natural Resources Information System (TRIRS). This information was photogrammerically compiled at a scale of at least 124,000 from aerial photography, dated 2004. Additional information was provided by the Texas Department of Transportation (TRIDT) GIS datasets for community boundaries and transportation layers dated 2015.



PANEL LOCATOR



MCLENNAN COUNTY, TEXAS

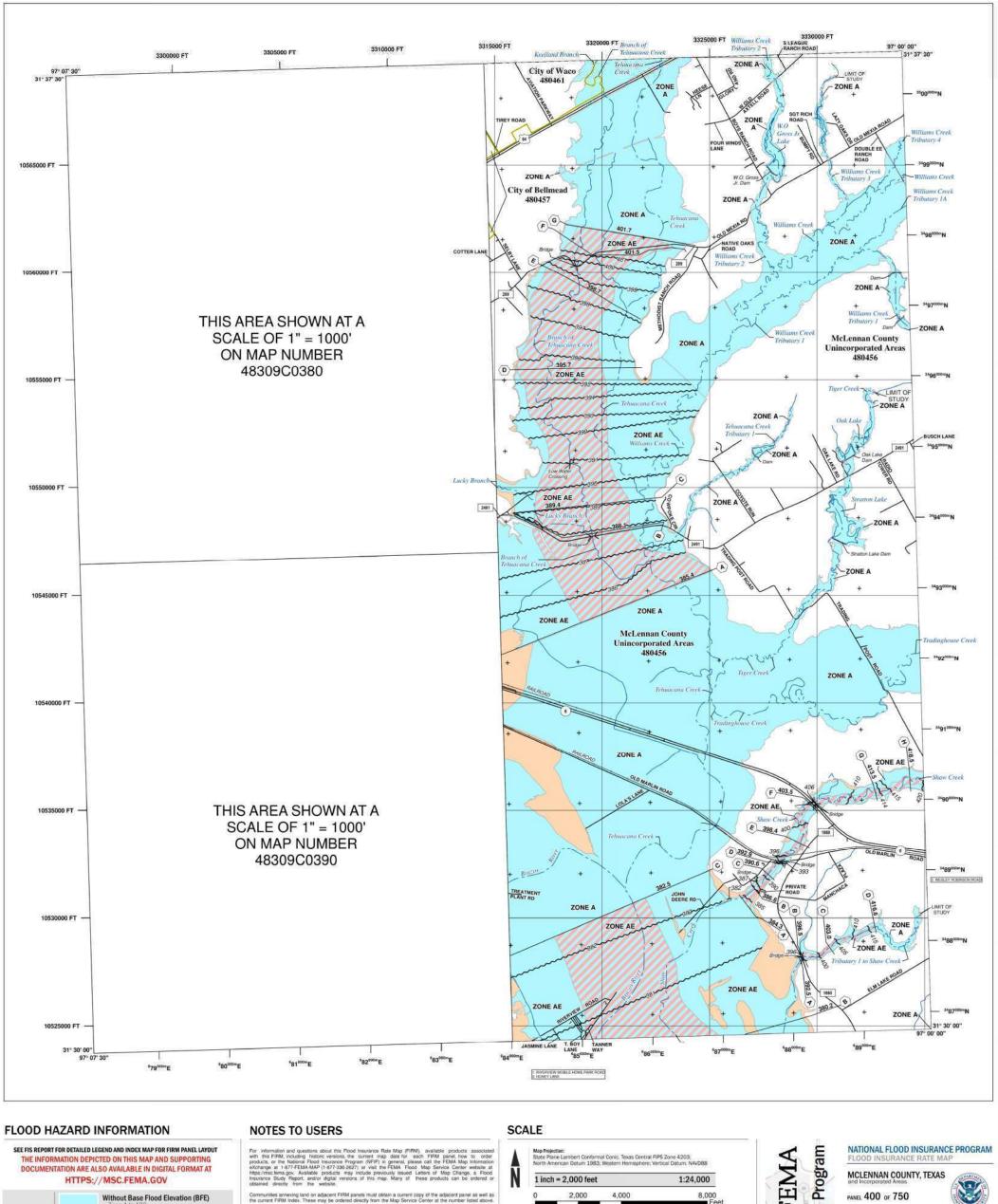


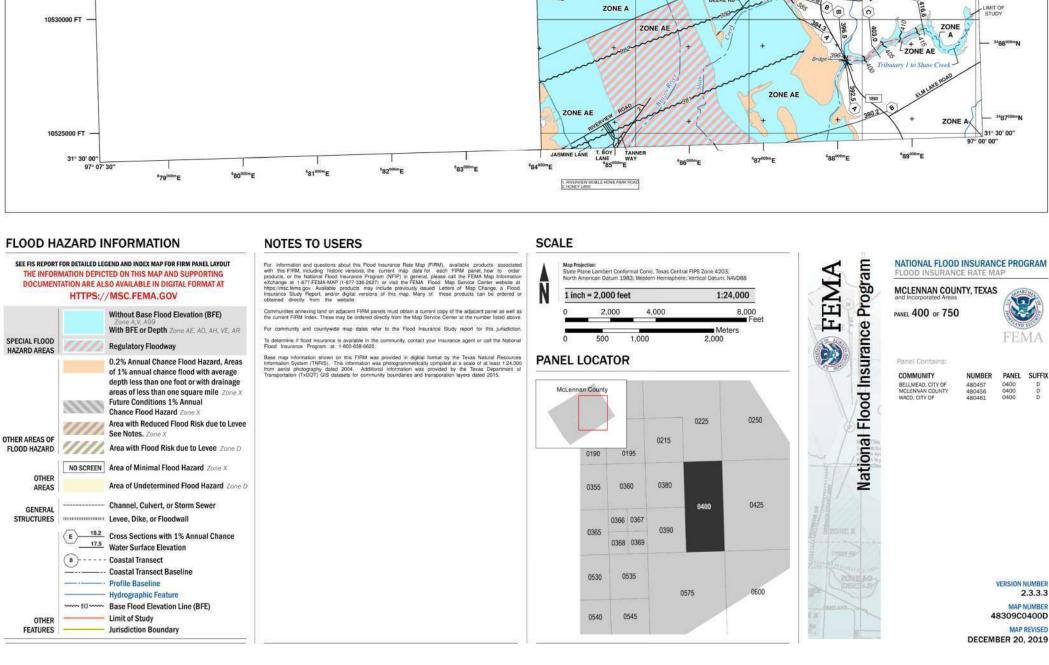


NUMBER

PANEL SUFFIX

VERSION NUMBER 2.3.3.3 MAP NUMBER 48309C0390D MAP REVISED **DECEMBER 20, 2019**

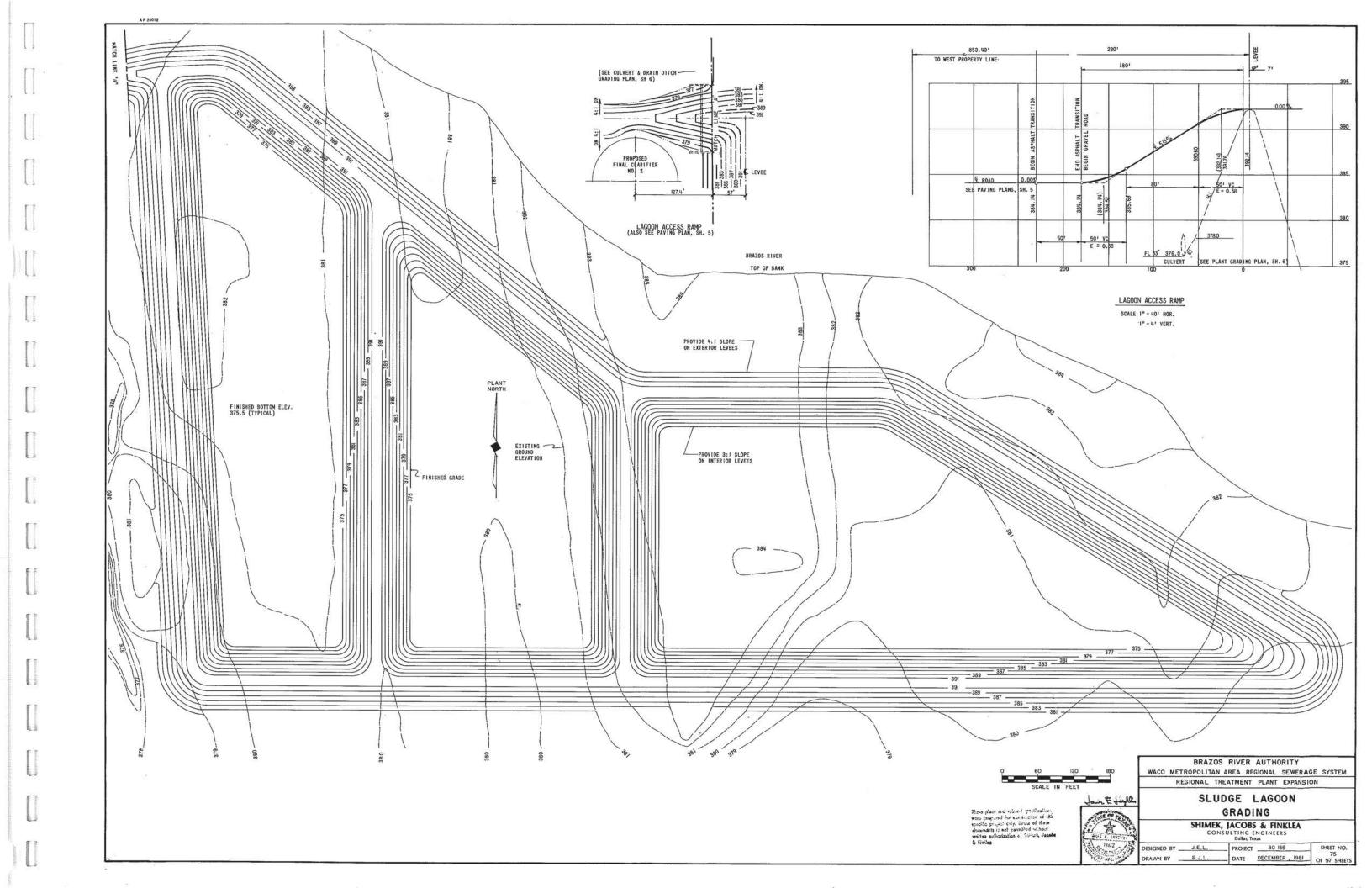


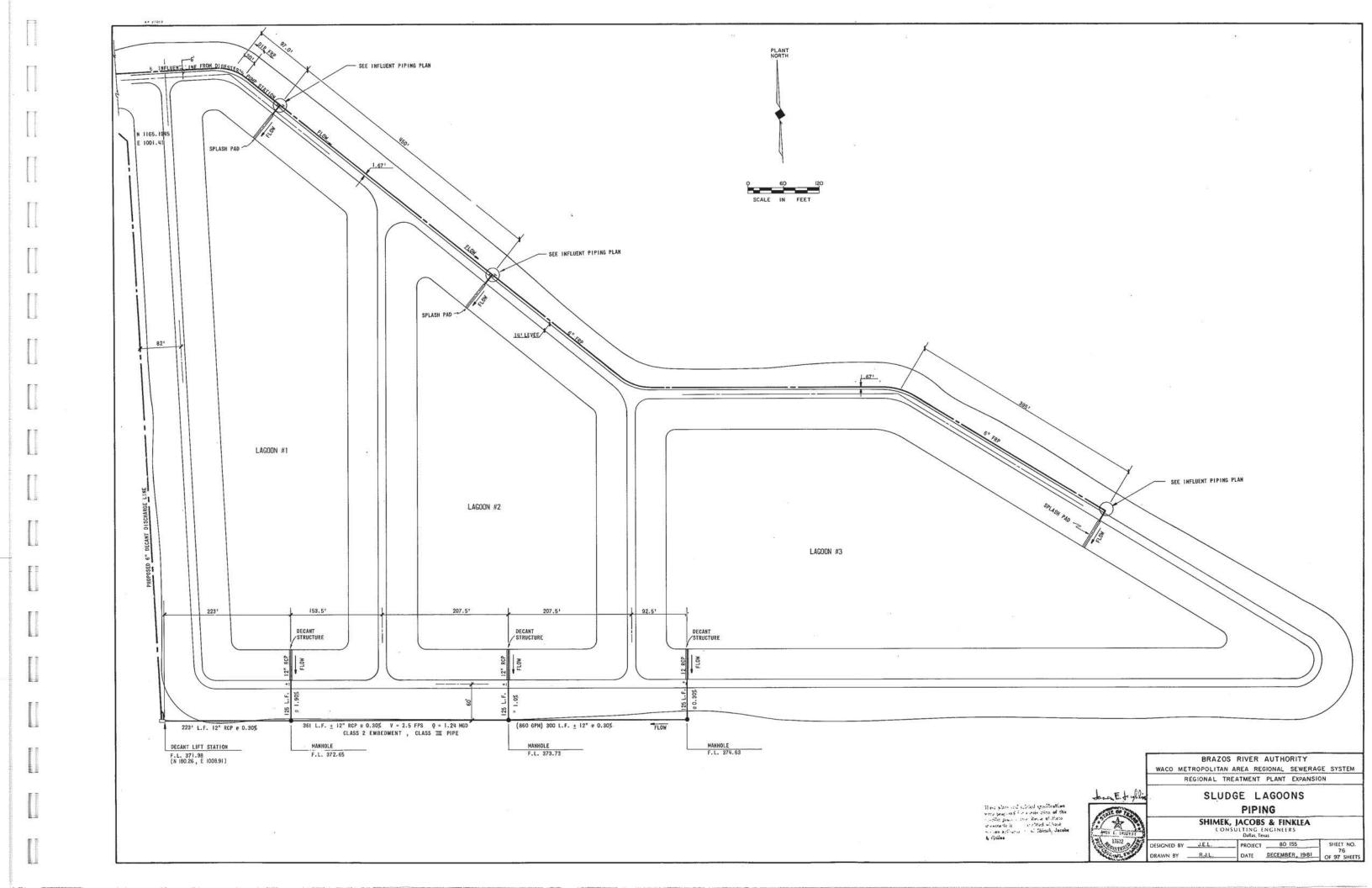


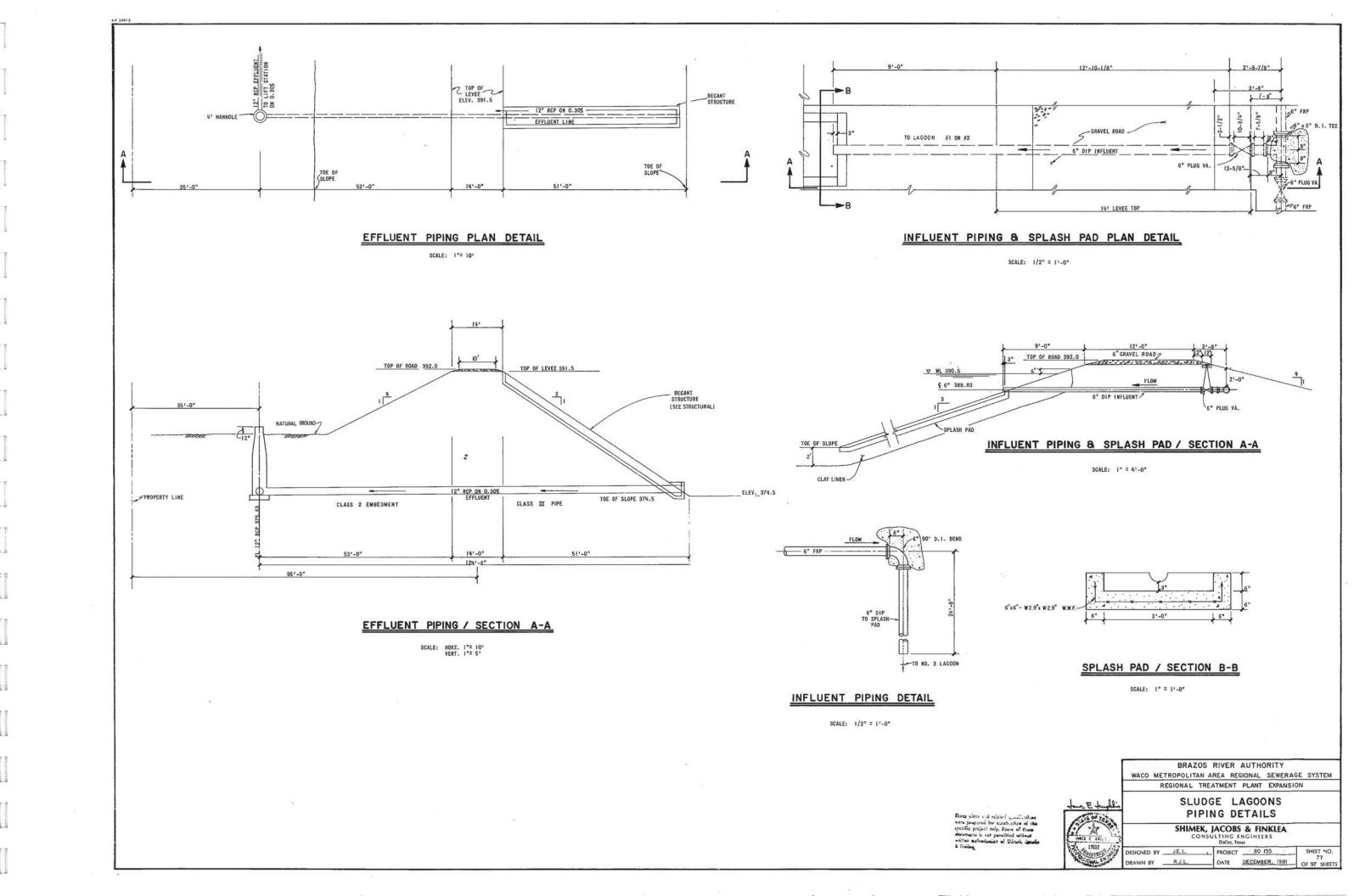
Attachment J

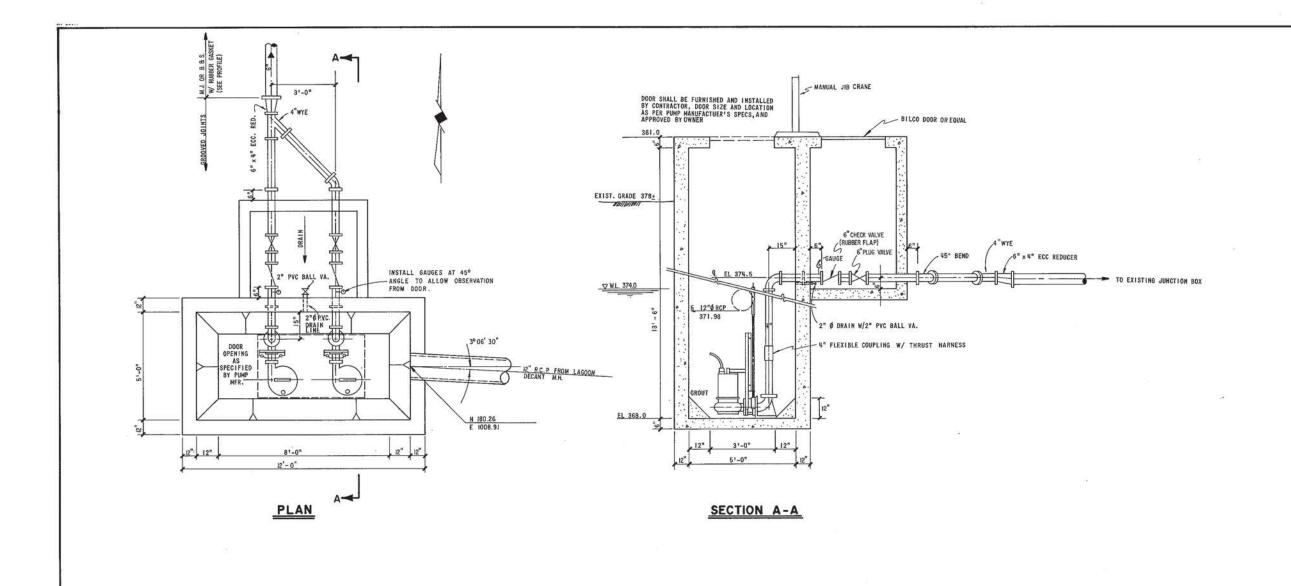
Lagoon Details













BRAZOS RIVER AUTHORITY

WACO METROPOLITAN AREA REGIONAL SEWERAGE SYSTEM

REGIONAL TREATMENT PLANT EXPANSION

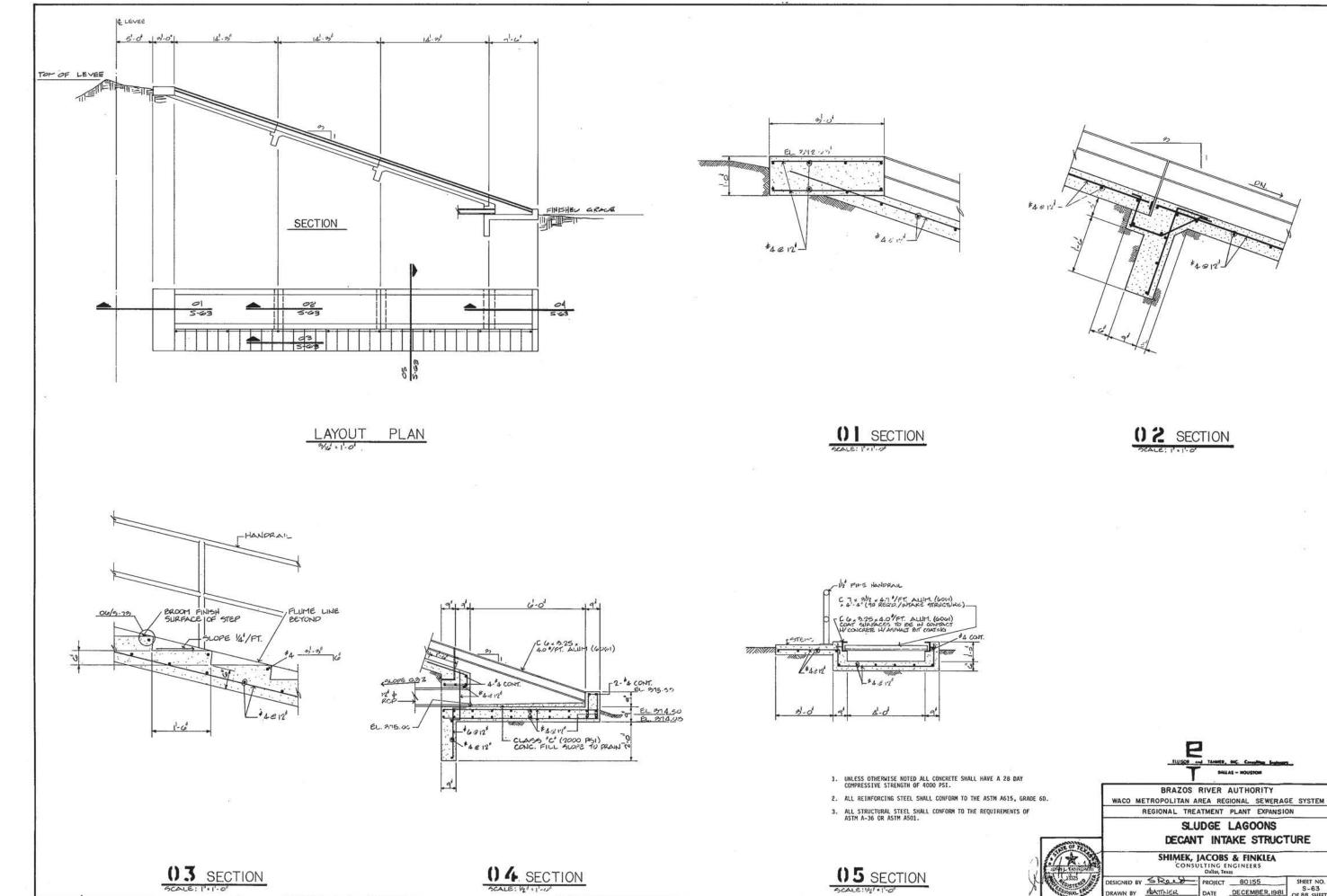
DECANT LIFT STATION

SHIMEK, JACOBS & FINKLEA
CONSULTING ENGINEERS
Dallas, Texas

PROJECT 80 155 SHEET NO. 78

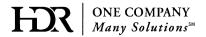
DATE DECEMBER, 1981 OF 97 SHEETS DRAWN BY R.J.L.

These plans and soluted specifications were progressed for construction of this specific project only. Revue of these discretifies in not permitted without without which administration of things, ignored the finding.



DESIGNED BY RATTINER PROJECT 80155 SHEET NO. S-63
DRAWN BY RATTINER DATE DECEMBER, 1981 OF 88 SHEETS





To: Tara Hickey, PE	
From: John Marler, PE	Project: Waco MARSS Central WWTP Expansion and Improvements
CC: Program Management Team	
Date: November 16, 2009	Job No: 84905

C:\Projects\WMARSS\Sludge Lagoon Memo 111609.doc

RE: Sludge Lagoon Cleanout Options and Cost Estimates

As part of the final design phase for the Waco Metropolitan Area Regional Sewerage System (WMARSS) Central Wastewater Treatment Plant (WWTP) Expansion and Improvements project, HDR Engineering (HDR) has been asked to help evaluate options for removing sludge from Lagoons #1 and #3. These ponds have been used for sludge storage since they were constructed in the early 1980's. Lagoon #1 is approximately 75% full and has been determined to be Class A biosolids through laboratory testing. Lagoon #3 is completely full and has had some sludge added in the past 3-4 months. There is a third lagoon (#2) between the two ponds in question which is also completely full.

In order to construct some of the improvements which were an integral part of getting the rated plant capacity expansion approved by the Texas Commission on Environmental Quality (TCEQ), it is necessary to remove the sludge from Lagoon #3. This lagoon will be utilized for peak flow equalization storage, enabling the Central WWTP to handle peak flows in excess of the 84 MGD peak treatment capacity. The lagoons also serve an important function in plant operations as an alternative disposal route for digested sludge when the pelletizer operation is down for maintenance. Therefore, it is important for permit compliance that Lagoon #3 be cleaned out and it is an important operational consideration that there be some available storage capacity in the remaining two lagoons.

HDR has contacted a number of vendors (see attached contact log) regarding the removal and disposal options for the accumulated biosolids in the lagoons. Each of these sludge disposal vendors has a preferred method for handling and disposal. Most are willing to work under a General Contractor, but some are not. One of the vendors (Biosolids Management Group, Inc. – BMG) that HDR contacted in June, 2008 has been working on site for several weeks now performing clean out work under a work order from the City of Waco acting as the managing partner for the WMARSS. The current plan for clean out of Lagoon #1 and the time and cost estimates presented below are based on production rates and discussions with plant staff and BMG personnel on site.

As listed below, there were three primary sludge removal and disposal methods examined for this analysis based on the options presented by the vendors.

- 1. Excavating/mucking, allowing material to thicken by air drying/draining and loading trucks with a hydraulic excavator (track hoe) and hauling to private property near the plant for disposal. (Note This is the method currently being used on site.)
- 2. Pumping or dredging the sludge from the lagoons into tanker trucks and hauling wet to private property near the plant for disposal.
- 3. Pumping to dewatering equipment (i.e. belt press or centrifuge) and hauling the thickened cake to private property near the plant for disposal.

Note that each of these alternatives assumes that private property owners in the vicinity of the plant will take the material. This is, of course, dependent on the material being classified as Class A. It appears that disposal land availability is not an issue, if the WMARSS is willing to pay at least some portion of delivery costs. If the material in Lagoon #3 is not determined to be Class A, then disposal options are much less available and the cost of disposal will be much greater than assumed for this analysis.

As can be seen from the attached calculations and as summarized in Table 1, the least expensive option for removal and disposal of the 20,000,000 gallons of biosolids in Lagoon #1 is to continue removal and loading with hydraulic excavators and haul to private property for disposal. The estimated durations are included for each removal method and are based on assumptions about how many pieces of equipment can be operating in a lagoon at one time. The loading rate of the trucks is the constraint for each method, but it is assumed that no more than two excavators can be working in Lagoon #1 and under that scenario at least 4 trucks will be needed to ensure that hauling is not the time constraint.

Table 1
Estimated Cost and Time for Sludge Removal and Disposal – Lagoon #1

Method	Estimated Cost	Estimated Duration
Excavate, Drain and Haul	\$597,000	25 weeks
Pump and Haul Wet	\$765,000	25 weeks
Pump, Dewater and Haul	\$1,697,000	19 weeks

A critical assumption to the calculated costs is that WMARSS will continue to pay \$4.00/ton for the hauling and disposal of the excavated material. Another critical assumption is the in-situ solids concentration of the material being approximately 15%. This value is based on recent sampling by the Central WWTP personnel. However, if the material has a lower solids content then the pumping and dewatering options become more attractive. Also, the pumped loading rate is assumed to be 500 gpm, which establishes the limit at which trucks can be loaded as well as the dewatering feed rate.

Table 2 below summarizes the estimated cost and time for the most cost efficient means of cleaning out Lagoon #3. This summary shows that the first assumed step is to pump the majority of the sludge from Lagoon #3 to refill Lagoon #1. This step is necessary to support a construction schedule for the planned improvements to the Central WWTP to include the Flow Equalization Basin construction to happen in a reasonable time frame. The remaining clean out would then proceed in the same recommended manner as described above for Lagoon #1.

Table 2
Estimated Cost and Time for Sludge Removal and Disposal – Lagoon #3

Method	Volume (gal)	Estimated Cost	Estimated Duration
Transfer Pump to Lagoon #1	25,000,000	\$500,000	12 weeks
Excavate, Drain and Haul	11,500,000	\$325,000	15 weeks
Totals =	36,500,000	\$825,000	27 weeks

Therefore, based on the assumptions stated above and the continual progression of the work, the WMARSS can expect the clean out efforts for Lagoons #1 and #3 to take approximately one full calendar year and to cost approximately \$1,422,000. The final determination of the biosolids in Lagoon #3 as Class A is a critical assumption of this estimate and the timeline presented above. If that material is not determined to be Class A, a revised processing and disposal option will have to be developed. Options such as off site composting, thermal treatment or lime stabilization would have to be evaluated for processing to Class A and/or a Class B disposal site would have to be permitted. Any of these options will involve more time to develop and potentially require the WMARSS to enter into a long term service agreement with a disposal vendor who could develop such a disposal system.

Assuming that WMARSS wishes to proceed as described above, it is recommended that the clean out of Lagoon #3 be incorporated into the construction contract for the proposed plant improvements. The General Contractor (GC) will then have the work under their control and have no justification to file for delays against the Owner. A reasonable estimate of when Lagoon #1 will be cleaned and available for filling will also need to be included in the contract documents.

Waco MARSS Central WWTP Capacity Expansion and Improvements Sludge Lagoon Calculations Sludge Lagoon 1 Total Volume 136,582 cy 27,582,004 gal Percent Filled 74% Sludge Volume 101,145 cy 20,425,692 gal TOTAL SLUDGE VOLUME, WET 101,145 cy

i ercerie i ineu	7 4 7 0			
Sludge Volume	101,145	су	20,425,692	gal
TOTAL SLUDGE VOLUME, WET	101,145	су		
Weight of Water =	8.34	lb/gal		
Total Weight of Sludge, wet =	178,410,399	lbs	89,205	tons
Percent Biosolids, wet	15%			
Total Weight of Biosolids =	13,381	tons		
Percent Biosolids, dry	20%			
Weight of Sludge, dry =	66,904	tons		
Unit Weight of Sludge (20%) =	1.06	g/cc	assumes solids	G = 1.43
Unit Weight of Sludge (20%) =	66.39	lb/cf	0.90	tons/cy
TOTAL SLUDGE VOLUME (20%) =	74,644	су	66,904	tons
Number of Trucks =	3			
Capacity of Truck =	24	су		
Round Trip Time =	1.25	hr		
Work Day =	10	hr		
Work Week =	6	days		
Work Year =	50	weeks		
Trips per day =	8	per truck		
Total Trips per day =	24			
Total Capacity per day =	576	су		
Total Capacity per week =	3,456	су		
Total Capacity per year =	172,800	су		
TOTAL TIME TO TRUCK WET SLUDGE =	7.0	months		
TOTAL TIME TO TRUCK 20% SLUDGE =	5.2	months		

Cost and Time Estimates for Lagoon 1: Pumping and Hauling Wet Sludge

ton per truck =	22.2	tons assuming 5000 gal tanker		
trucking and application =	\$4.00	per/ton assuming <10 mile one way		
truck and apply cost =	\$356,821			
pumping cost =	\$408,514	assuming	\$0.02	/gal
total cost =	\$765,335			

number of trucks	tons/day	days needed	weeks	
3	532	168	34	
4	710	126	25	
5	887	101	20	

Sludga Lagoon 1

5 5				
Excavating and Loading Trucks:				
bucket capacity =	2	су		
hourly capacity =	80	су		
loading capacity =	40	cy/hr	about two trucks an hour	
excavation and loading cost =	\$240,219	assuming \$95/	hr operating cost	
number of excavators	cy/10 hr day	days needed	weeks	
1	400	253	51	
2	800	126	25	
3	1200	84	17	
Hauling Gravity Thickened (20%) Sludge:				
ton per truck =	21.5	tons		
trucking and application =	\$4.00	per/ton assuming <5 mile one way		
truck and apply cost =	\$356,821			
Total cost for this method =	\$597,040			
number of trucks	tons/day	days needed	weeks	
3	516	130	26	
4	710	94	19	
5	887	75	15	

Pumping, Dewatering and Hauling Dry Sludge Cake:

tons per truck =	21.5	tons		
trucking and application =	\$4.00	per/ton assum	ing <5 mile o	ne way
truck and apply cost =	\$267,616			
pumping cost =	\$408,514	assuming	\$0.02	/gal
dewatering cost =	\$1,021,285	assuming	\$0.05	/gal
total cost =	\$1,697,414			

number of trucks	tons/day	days needed	weeks
3	516	130	26
4	688	97	19
5	860	78	16
6	1033	65	13

Sludge Lagoon 3				
Total Volume	180,767	су	36,504,929	gal
Percent Filled	100%			
Sludge Volume	180,767	су	36,504,929	gal
TOTAL SLUDGE VOLUME, WET =	180,767	су		
Weight of Water =	8.34	lb/gal		
Total Weight of Sludge, wet =	313,913,606	lbs	156,957	tons
Percent Biosolids, wet	10%			
Total Weight of Biosolids, wet =	15,696	tons		
Percent Biosolids, dry	20%			
Weight of Sludge, dry =	78,478	tons		
Unit Weight of Sludge (20%) =	1.06	g/cc		
Unit Weight of Sludge (20%) =	66.39	lb/cf	0.90	tons/cy
TOTAL SLUDGE VOLUME (20%) =	87,558	су	78,478	tons
N. 1. 5- 1	_			
Number of Trucks =	3			
Capacity of Truck =	24	cy		
Round Trip Time =	1.25	hr		
Work Day =	10	hr		
Work Week =	6	days		
Work Year =	50	weeks		
Trips per day =	8	per truck		
Total Trips per day =	24			
Total Capacity per day =	576	су		
Total Capacity per week =	3,456	су		
Total Capacity per year =	172,800	су		
TOTAL TIME TO TRUCK WET SLUDGE =	12.6	months		
TOTAL TIME TO TRUCK 20% SLUDGE =	6.1	months		
Cost and Time Estimates for Lagoon 3:				
Pumping and Hauling Wet Sludge				
ton per truck =	20.85	tons assuming 5	000 gal tanke	r
trucking and application =	\$4.00	per/ton assuming <10 mile one way		
truck and apply cost =	\$627,827	, ,	J	,
pumping cost =	\$730,099	assuming	\$0.02	/gal
total cost =	\$ 1,357,926		, -	, 0
number of trucks	tons/day	days needed	weeks	_
3	500	314	63	
4	667	235	47	
5	834	188	38	

Sludge Lagoon 3

Pumping, Dewatering and Hauling Dry Sludge Cake:

tons per truck =	21.5	tons		
trucking and application =	\$4.00	per/ton assum	ing <5 mile or	ne way
truck and apply cost =	\$313,914			
pumping cost =	\$730,099	assuming	\$0.02	/gal
dewatering cost =	\$1,825,246	assuming	\$0.05	/gal
total cost =	\$2,869,259			

number of trucks	tons/day	days needed	weeks
3	516	152	30
4	688	114	23
5	860	91	18
6	1033	76	15

Sludge Lagoon 3

Siudge Lagoon 3				
Pumping Wet Sludge from Lagoo	n 3 to Lagoon 1			
Lagoon 3 volume =	36,504,929	gal		
Lagoon 1 volume =	25,000,000	gal		
transfer pumping cost =	\$500,000	assuming	\$0.02	/gal
pumping rate =	500	gpm		
pumping time =	69	days @ 12 hour	s per worki	ng day
pumping time =	12	weeks @ 6 days	s per week	
remaining volume =	11,504,929	gal	56,971	су
weight of remaining sludge =	51,045	tons		
trucking and application =	\$4.00	per/ton assumi	ng <5 mile o	ne way
truck and apply cost =	\$204,182			
Excavating and Loading Trucks fo	_	_	3:	
bucket capacity =	2	су		
hourly capacity =	80	су		
loading capacity =	40	cy/hr		trucks an hou
excavation and loading cost =	\$121,233	assuming \$95/h	r operating	cost
number of excavators	cy/10 hr day	days needed	weeks	
1	400	128	26	
2	800	64	13	
3	1200	43	9	
Hauling Cravity Thickened Clude	o for Domoisis	Contonto of last	non 2.	
Hauling Gravity Thickened Sludg ton per truck =	e for Kemaining 21.5	tons	JUII 3.	
trucking and application =	\$4.00	per/ton assumi	ng <5 mile o	ne way
truck and apply cost =	\$204,182	per/ ton assum		c way
	720.,232			
number of trucks	tons/day	days needed	weeks	_
3	516	99	20	
4	688	74	15	
5	860	59	12	
Table for Observation Laws and O	600F 44F			
Total for Cleaning Lagoon 3 =	\$825,415			

Waco MARSS Central WWTP Capacity Expansion and Improvements Sludge Lagoon Vendor Information

10/09/09

Company	Contact	Contact Info	Option 1	Option 1 Quote	Option 2	Option 2 Quote
AWS Dredging (will not						
work under a GC)	Mark Lyda	866-752-1454	Hydraulic Dredge	1.7 million	Geotubes with polymers	5.1 million
		800-370-0035		4¢ per gal to pump, transport,	Dewater sludge with belt	5-7¢ per gal for dewatering,
Synagro	Steven LeBlanc	214-218-0639	Pump Sludge in Wet Form	etc; 1-2¢ for pumping only	presses	transportation, etc
			Pump to centrifuge and haul dry			
American Process Group	Greg Roppelt	239-573-7766	cake, assumes Class A	guesses \$5M		
			currently working at site,			
Biosolids Managemnet			excavating with entended boom			
Group	Lance Egeland	515-433-6044	trackhoe			

TECHNICAL SPECIFICATIONS

SECTION G19 - LAGOON LINERS AND LEVEES

G19.01 GENERAL

The work to be performed under this section of the specifications shall consist of furnishing all labor, equipment and materials, and in performing all operations necessary in connection with the installation of lagoon liners and levees as shown in the plans and as specified herein.

G19.02 SITE PREPARATION

Site preparation shall be in accordance with Section G1 of these specification and as specified herein.

G19.03 MATERIAL FOR LINERS

The Texas Department of Water Resources standards for lagoon linings include the following criteria:

Placed and compacted clay soils shall meet the following requirements:

- 1. Greater than 30% passing a No. 200 mesh sieve.
- 2. Liquid Limit greater than 30%
- 3. Plasticity Index greater than 15
- 4. A minimum thickness of 2 feet

G19.04 CONSTRUCTION OF LINERS

Those materials meeting the TDWR's requirements shall be placed in loose lifts not exceeding 8 inches and roller compacted to a density of at least 95% of the maximum density as obtained by Standard compaction procedures (ASTM D 698). Such materials shall be placed at a moisture content around the optimum (~1% to +3%). The final compacted thickness of such material shall be greater than or equal to 2 feet. During placement of this material, geotechnical inspection shall be performed, at the Owner's expense, to insure compliance with all TDWR criteria.

G19.05 LEVEES

Embankment or levees around lagoons shall be constructed as described for structural backfill in Section G1 of these specifications. A clay keyway is required between embankment and natural ground as shown on the plans.

G19.06 SUMMARY OF CLASSIFICATION TESTS

The following table presents the results of soil testing for the lagoons. The location of the borings are shown on the plans:

		700				
Boring	*	Depth	LL	PI	No. 200	Unified Soil
Number		(ft)	(8)	-	(8)	Classification
SP-1		2.0-4.0	40	20	97.7	CL
SP-1		4.0-6.0	39	18	98.5	CL
SP-1		6.0-8.0	35	15	98.4	CL
SP-1		8.0-10.0	25	10	65.3	CL
SP-2		2.0-4.0	44	22	98.8	CL
SP-2		4.0-6.0	43	23	99.4	CL
SP-2		6.0-7.5	44	20	97.2	CL
SP-2		7.5-9.0	36	16	87.6	CL
SP-3		2.0-4.0	33	13	98.8	CL
SP-3		4.0-6.0	27	7	95.1	CL
SP-4		0.0-2.0	35	15	86.1	CL
SP~5		6.0-8.0	44	21	99.2	CL
SP-5		8.0-10.0	37	16	87.5	CL
SP-6		4.0-6.0	41	19	99.2	CL
SP-6		6.0-8.0	44	22	99.1	CL
SP-6		8.0-10.0	30	13	69.4	CL

G19.07 PAYMENT

No separate payment will be made for work performed under this specification or shown in the plans, for lagoon liners and levees. All cost incurred shall be included in the contract price for the appropriate items in the Proposal and Bid Schedule.

Attachment K

Laboratory Reports



 Page 1 of 25
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO			
CENTRAL PLANT ANALYSIS			
REPORT ID:	WACOCP-011624		
LAB CONTACT:	SHAY OCHOA		
REPORT DATE:	1.16.24		

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
Date/ Time Collected	12.13.23 / 00:00	12.13.23 / 06:00	12.13.23 / 12:00	12.13.23 / 18:00
Date/ Time Received by Lab	12.14.23 / 17:10	12.14.23 / 17:10	12.14.23 / 17:10	12.14.23 / 17:10
Laboratory Sample ID	29647-23	29648-23	29649-23	29650-23
Sampling Description/Procedure	Client Collected			Client Collected
				Grab
Sample Type	Grab	Grab	Grab	
Sample Matrix	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector	L. Ondrej	C. Crosby	B. Hand	L. Ondrei

TAKAMETER / UNIT / METHOD	,				
Oil & Grease, mg/L	EPA 1664 A	< 5.0	< 5.0	< 5.0	< 5.0
Reporting Limit, mg/L		5.0	5.0	5.0	5.0
Dilution Factor		1	1	1	1
Date / Time Analyzed		12.26.23 / 10:00	12.26.23 / 10:00	12.26.23 / 10:00	12.26.23 / 10:00
Analyst Initials		BF/CD	BF / CD	BF / CD	BF/CD

 Page 2 of 25
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016

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WMARSS ANALYSIS			
REPORT ID:	WACOCP-011624		
LAB CONTACT: SHAY OCHOA			
REPORT DATE:	1.16.24		

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	EFFLUENT
Date/ Time Collected	12.13.23 / 00:00, 06:00, 12:00, 18:00
Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29651-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	L. Ondrej / C. Crosby / B. Hand

Sulfide, mg/L	SM 4500-S2-D	< 0.10
Reporting Limit, mg/L		0.10
Dilution Factor		1
Date / Time Analyzed		12.26.23 / 13:45
Analyst Initials		LD / AJ

 Page 3 of 25
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016

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REPORT ID:	WACOCP-011624		
LAB CONTACT:	SHAY OCHOA		
REPORT DATE:	REPORT DATE: 1.16.24		

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	EFFLUENT
Date/ Time Collected	12.13.23 / 00:00, 06:00, 12:00, 18:00
Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29652-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	L. Ondrej / C. Crosby / B. Hand

Hexavalent Chromium, mg/L	SM 3500 Cr-B	0.005
Trivalent Chromium, mg/L	Calc.	0.004
Reporting Limit, mg/L		0.003
Dilution Factor		1
Date / Time Analyzed		1.8.24 / 14:55
Analyst Initials		LD / JLJ

 Page 4 of 25
 Bio Chem Lab, Inc.

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DECEMBER 2023 - CITY OF WACO		
WMARSS ANALYSIS		
REPORT ID:	WACOCP-011624	
LAB CONTACT:	SHAY OCHOA	
REPORT DATE:	1.16.24	

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	EFFLUENT
Date/ Time Collected	12.13.23 / 0:01-23:59
Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29654-23, 29655-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	K. Lyon

Total Phosphorus, mg/L	SM 4500 P B.5, E	2.84
Reporting Limit, mg/L		0.20
Dilution Factor	4	
Date / Time Analyzed		12.15.23 / 14:00
Analyst Initials	LD/JLJ	

TKN, mg/L	SM 4500 Norg B	4.44
Reporting Limit, mg/L		1.00
Dilution Factor		2
Date / Time Analyzed		12.20.23 / 20:30
Analyst Initials		sv

Nitrate as N, mg/L	EPA 300.0	16.9
Reporting Limit, mg/L		0.01
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 14:22
Analyst Initials		AJ

Nitrite as N _, mg/L	EPA 300.0	0.48
Reporting Limit, mg/L		0.01
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 14:22
Analyst Initials		AJ

Total Nitrogen, mg/L	(CALCULATED)	21.82
Fluoride, mg/L	EPA-300.0	0.52
Reporting Limit, mg/L		0.10
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 14:22
Analyst Initials		AJ

Orthophosphate, mg/L	EPA 300.0	2.93
Reporting Limit, mg/L	0.04	
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 14:22
Analyst Initials		AJ

 Page 5 of 25
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016

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Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29653-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	K. Lyon

TOTAL METALS ANALYSIS

Time Digested

Analyst Initials

09:00

JLJ

PARAMETER	METHOD	REPORTING LIMIT	DILUTION FACTOR	RESULT (mg/L)	DATE/TIME ANALYZED	ANALYST	QUALIFIER
Aluminum	EPA-200.8	0.005	1	0.0777	12.27.23 / 00:22	JLJ	
Antimony	EPA-200.8	0.005	1	< 0.005	12.27.23 / 00:22	JLJ	
Arsenic	EPA-200.8	0.0005	1	0.0027	12.27.23 / 00:22	JLJ	
Barium	EPA-200.8	0.003	1	0.0304	12.27.23 / 00:22	JLJ	
Beryllium	EPA-200.8	0.0005	1	< 0.0005	12.27.23 / 00:22	JLJ	
Cadmium	EPA-200.8	0.001	1	< 0.001	12.27.23 / 00:22	JLJ	
Chromium	EPA-200.8	0.003	1	< 0.003	12.27.23 / 00:22	JLJ	
Copper	EPA-200.8	0.002	1	0.0020	12.27.23 / 00:22	JLJ	
Lead	EPA-200.8	0.0005	1	< 0.0005	12.27.23 / 00:22	JLJ	
Magnesium	EPA-200.8	0.05	1	5.92	12.27.23 / 05:22	JLJ	
Manganese	EPA-200.8	0.0001	1	0.0569	12.27.23 / 00:22	JLJ	
Molybdenum	EPA-200.8	0.001	1	0.0010	12.27.23 / 00:22	JLJ	
Nickel	EPA-200.8	0.002	1	0.0025	12.27.23 / 00:22	JLJ	
Selenium	EPA-200.8	0.005	1	< 0.005	12.27.23 / 00:22	JLJ	
Silver	EPA-200.8	0.0005	1	< 0.0005	12.27.23 / 00:22	JLJ	
Strontium	EPA-200.8	0.05	1	0.3661	12.27.23 / 05:22	JLJ	
Thallium	EPA-200.8	0.0005	1	< 0.0005	12.27.23 / 00:22	JLJ	
Zinc	EPA-200.8	0.005	1	0.0487	12.27.23 / 00:22	JLJ	
Date Digested	12.18.23						

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO			
CENTRAL PLANT ANALYSIS			
REPORT ID:	WACOCP-011624		
LAB CONTACT:	SHAY OCHOA		
REPORT DATE:	1.16.24		

FIELD DATA / SAMPLE DESCRIPTION

HELD BAIA / GAME LE BEGGMI HON				
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	12.12.23 / 12:00	12.12.23 / 18:00	12.13.23 / 00:00	12.13.23 / 06:00
Date/ Time Received by Lab	12.14.23 / 17:10	12.14.23 / 17:10	12.14.23 / 17:10	12.14.23 / 17:10
Laboratory Sample ID	29638-23	29639-23	29640-23	29641-23
Sampling Description/Procedure	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type	Grab	Grab	Grab	Grab
Sample Matrix	Aqueous-NPW	Agueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector	B. Hand	L. Ondrei	L. Ondrei	

FARAMETER / UNIT / METHOD					
Oil & Grease, mg/L	EPA 1664 A	30.8	28.2	33.9	19.6
Reporting Limit, mg/L		5.0	5.0	5.0	5.0
Dilution Factor		1	1	1	1
Date / Time Analyzed		12.26.23 / 10:00	12.26.23 / 10:00	12.26.23 / 10:00	12.26.23 / 10:00
Analyst Initials		BF/CD	BF / CD	BF / CD	BF/CD

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4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

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CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO		
WMARSS ANALYSIS		
REPORT ID:	WACOCP-011624	
LAB CONTACT:	SHAY OCHOA	
REPORT DATE:	1.16.24	

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	INFLUENT
	12.12.23-12.13.23 /
	12:00, 18:00, 00:00,
Date/ Time Collected	06:00
Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29642-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
	B. Hand / L. Ondrej /
Collector	K. Lvon

Sulfide, mg/L	SM 4500-S2-D	3.55
Reporting Limit, mg/L		1.00
Dilution Factor		10
Date / Time Analyzed		12.26.23 / 13:45
Analyst Initials		LD / AJ

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 Bio Chem Lab, Inc.

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DECEMBER 2023 - CITY OF WACO		
WMARSS ANALYSIS		
REPORT ID:	WACOCP-011624	
LAB CONTACT:	SHAY OCHOA	
REPORT DATE:	1.16.24	

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	INFLUENT
	12.12.23-12.13.23 / 12:00, 18:00, 00:00,
Date/ Time Collected	06:00
Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29643-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand / L. Ondrej / K. Lyon

Hexavalent Chromium, mg/L	SM 3500 Cr-B	0.004
Trivalent Chromium, mg/L	Calc.	0.024
Reporting Limit, mg/L		0.003
Dilution Factor		1
Date / Time Analyzed		1.8.24 / 14:55
Analyst Initials		LD / JLJ

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DECEMBER 2023 - CITY OF WACO		
CENTRAL PLANT ANALYSIS		
REPORT ID:	WACOCP-011624	
LAB CONTACT:	SHAY OCHOA	
REPORT DATE:	1.16.24	

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	INFLUENT
Date/ Time Collected	12.12.23-12.13.23 / 12:00-12:00
Date/ Time Received by Lab	12.14.23 / 17:10
Laboratory Sample ID	29645-23, 29646A-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	J. Owen

PARAMETER / UNIT / METHOD

Total Phosphorus, mg/L	SM 4500 P B.5, E	35.2
Reporting Limit, mg/L		1.00
Dilution Factor		20
Date / Time Analyzed		12.20.23 / 11:10
Analyst Initials		LD / JLJ

TKN, mg/L	SM 4500 Norg B	114.
Reporting Limit, mg/L		2.50
Dilution Factor		5
Date / Time Analyzed		12.20.23 / 20:30
Analyst Initials		SV

Nitrate as N _, mg/L	EPA 300.0	Q 0.02
Reporting Limit, mg/L		0.01
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 11:28
Analyst Initials		AJ

Nitrite as N _. mg/L	EPA 300.0	Q < 0.01
Reporting Limit, mg/L		0.01
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 11:28
Analyst Initials		AJ

Total Nitrogen, mg/L	(CALCULATED)	0.02
Fluoride, mg/L	EPA-300.0	Q < 0.10
Reporting Limit, mg/L		0.10
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 11:28

Analyst Initials

Orthophosphate, mg/L	EPA 300.0	Q 7.97
Reporting Limit, mg/L		0.04
Dilution Factor		1
Date / Time Analyzed		12.15.23 / 11:28
Analyst Initials		AJ

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DECEMBER 2023 - CITY OF WACO			
CENTRAL PLANT ANALYSIS			
REPORT ID: WACOCP-011624			
LAB CONTACT:	SHAY OCHOA		
REPORT DATE:	1.16.24		

FIELD DATA / SAMPLE DESCRIPTION

23 /
/ 17:10
644-23
ollected
nposite
s-NPW
. Owen

TOTAL METALS ANALYSIS

Time Digested

Analyst Initials

09:00

PARAMETER	METHOD	REPORTING LIMIT	DILUTION FACTOR	RESULT (mg/L)	DATE/TIME ANALYZED	ANALYST	QUALIFIER
Aluminum	EPA-200.8	0.5	100	32.9	1.3.24 / 21:23	JLJ	Q3
Antimony	EPA-200.8	0.005	1	0.0023	12.27.23 / 00:17	JLJ	
Arsenic	EPA-200.8	0.0005	1	0.0134	12.27.23 / 00:17	JLJ	
Barium	EPA-200.8	0.003	1	0.3956	12.27.23 / 00:17	JLJ	C1
Beryllium	EPA-200.8	0.0005	1	0.0007	12.27.23 / 00:17	JLJ	
Cadmium	EPA-200.8	0.001	1	0.0012	12.27.23 / 00:17	JLJ	
Chromium	EPA-200.8	0.003	1	0.0282	12.27.23 / 00:17	JLJ	
Copper	EPA-200.8	0.002	1	0.2380	12.27.23 / 00:17	JLJ	C1
Lead	EPA-200.8	0.0005	1	0.0285	12.27.23 / 00:17	JLJ	
Magnesium	EPA-200.8	0.05	1	10.5	12.27.23 / 05:17	JLJ	
Manganese	EPA-200.8	0.0001	1	0.4593	12.27.23 / 00:17	JLJ	C1
Molybdenum	EPA-200.8	0.001	1	0.0133	12.27.23 / 00:17	JLJ	
Nickel	EPA-200.8	0.002	1	0.0259	12.27.23 / 00:17	JLJ	
Selenium	EPA-200.8	0.005	1	< 0.005	12.27.23 / 00:17	JLJ	
Silver	EPA-200.8	0.0005	1	0.0012	12.27.23 / 00:17	JLJ	
Strontium	EPA-200.8	0.05	1	0.6613	12.27.23 / 05:17	JLJ	
Thallium	EPA-200.8	0.0005	1	< 0.0005	12.27.23 / 00:17	JLJ	
Zinc	EPA-200.8	0.005	1	0.9955	12.27.23 / 00:17	JLJ	C1
Date Digested	12.18.23						

ANALYTICAL NOTES	i, INTERPRETATIONS,	METHOD DEVIATIONS	OR ENVIRONMENTAL	. CONDITIONS :

NONE TO REPORT.

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 *ANALYTICAL REPORT*

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

SUMMARY OF ANALYTICAL BATCH QC

OIL & GREASE

SETUP DATE	SETUP ID	BATCH ID			
12.26.23	OG122623-03	OG122623-03-01			
DUPLICATE ID:	RESULT 1:	RESULT 2:	% DEV		
7341-1-1604	35.8	37.4		2.2	
BLANK, mg/L:	QCS % REC:	LCS % REC:	LCSD % REC:		
<1.4		89.5	93.5		
NO SPIKE AVAILABLE THIS SETUP.					

SULFIDE

SETUP DATE	SETUP ID	BATCH ID	
12.26.23	S-122623-02	S-122623-02-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29883-23	15.0	15.0	0.03
SPIKE ID:	RESULT 1	RESULT 2	% REC
29887-23 Q3	2.1	8.11	121.2
BLANK, mg/L:	< 0.05	LCS, %REC:	83.3

HEXAVALENT CHROMIUM

SETUP ID	BATCH ID	
HC-010824-01	HC-010824-01-01	
RESULT 1	RESULT 2	% DEV
0.004	0.004	0.0
RESULT 1	RESULT 2	% REC
0.005	0.046	82.0
0.005	0.046	82.0
LCS, %REC	LCSD, %REC	
90.5	90.5	
	HC-010824-01 RESULT 1 0.004 RESULT 1 0.005 0.005 LCS, %REC	HC-010824-01 HC-010824-01-01 RESULT 1 RESULT 2 0.004 0.004 RESULT 1 RESULT 2 0.005 0.046 0.005 0.046 LCS, %REC LCSD, %REC

TKN

SETUP DATE	SETUP ID	BATCH ID	
12.20.23	TKN-122023-03	TKN-122023-03-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV
29471-23	49.4	50.5	1.1
SPIKE ID:	RESULT 1:	RESULT 2:	% REC
29434-23	40.6	60.5	99.5
29434-23	40.6	62.5	109.5
BLANK, mg/L:		LCS % REC:	LCSD % REC:
< 0.25		112.6	106.6

PHOSPHORUS

SETUP DATE	SETUP ID	BATCH ID	
12.15.23	P-121523-04	P-121523-04-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
29454-23	5.86	6.66	6.4
29565-23	7.46	7.83	2.4
SPIKE ID:	RESULT 1	RESULT 2	% REC
29165-23	2.58	3.17	92.2
29165-23	2.58	3.24	103.1
BLANK, as P:	LCS % REC:	LCSD % REC:	
< 0.025	102.6	105.3	

SETUP DATE	SETUP ID	BATCH ID	
12.20.23	P-122023-05	P-122023-05-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
29701-23	6.31	6.27	0.3
29881-23	36.7	37.6	1.2
SPIKE ID:	RESULT 1	RESULT 2	% REC
29806-23 Q3	2.67	3.44	120.3
29806-23	2.67	3.36	107.8
BLANK, as P:	LCS % REC:	LCSD % REC:	
< 0.025	95.0	94.3	

NITRATE AS N

SETUP DATE	SEQUENCE ID					
12.14.23-12.15.23	IC-121	IC-121423-10				
SAMPLE ID	RESULT 1	RESULT 2	RPD			
12795	11.1	11.1	0.0			
SPIKE ID:	RESULT 1	RESULT 2	% REC			
29535-23	0.0	111.3	111.3			
IPCS-1 % REC:	111.0	IPCS-2 % REC:	107.1			
LCS % REC:	107.8	LCSD % REC:	108.6			
BLANK, mg/L:	<0.01					

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 *ANALYTICAL REPORT*

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

NITRATE AS N

SETUP DATE	SEQUENCE ID							
12.15.23	IC-121523-11	IC-121523-11						
SAMPLE ID	RESULT 1	RESULT 2	RPD					
12826	11.0	10.8	1.7					
SPIKE ID:	RESULT 1	RESULT 2	% REC					
29664-23	0.0	109.6	109.6					
IPCS-1 % REC:	109.8	IPCS-2 % REC:	108.0					
LCS % REC:	106.4	LCSD % REC:	106.7					
BLANK, mg/L:	<0.01							

NITRITE AS N

SETUP DATE	SEQUENCE ID		
12.14.23-12.15.23	IC-121		
SAMPLE ID	RESULT 1	RESULT 2	RPD
12795	11.1	11.1	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
29535-23	0.0	111.8	111.8
IPCS-1 % REC:	111.0	IPCS-2 % REC:	108.8
LCS % REC:	109.2	LCSD % REC:	110.0
BLANK, mg/L:	<0.01		

SETUP DATE	SEQUENCE ID			
12.15.23	IC-121523-11			
SAMPLE ID	RESULT 1	RESULT 2	RPD	
12826	11.0	10.9		0.8
SPIKE ID:	RESULT 1	RESULT 2	% REC	
29664-23	0.0	109.6		109.6
IPCS-1 % REC:	109.7	IPCS-2 % REC:	108.8	
LCS % REC:	108.0	LCSD % REC:	108.0	
BLANK, mg/L:	<0.01			

FLUORIDE

SETUP DATE	SEQUENCE ID		
12.14.23-12.15.23	IC-121	423-10	
SAMPLE ID	RESULT 1	RESULT 2	RPD
12795	12.1	12.1	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
29535-23	0.0	120.5	116.7
IPCS-1 % REC:	116.9	IPCS-2 % REC:	110.8
LCS % REC:	Q2 111.7	LCSD % REC:	Q2 113.2
BLANK, mg/L:	<0.10		

SETUP DATE	SEQUENCE ID		
12.15.23	IC-121523-11		
SAMPLE ID	RESULT 1	RESULT 2	RPD
29664-23	0.4	0.4	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
29664-23	0.4	113.5	113.1
IPCS-1 % REC:	112.7	IPCS-2 % REC:	108.4
LCS % REC:	107.0	LCSD % REC:	108.9
BLANK, mg/L:	<0.10		

PHOSPHATE

SETUP DATE	SEQUENCE ID			
12.14.23-12.15.23	IC-121			
SAMPLE ID	RESULT 1	RESULT 2	RPD	
12795	11.4	11.4		0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC	
29535-23 Q3	0.0	131.9		131.9
IPCS-1 % REC:	112.2	IPCS-2 % REC:	111.1	
LCS % REC:	109.3	LCSD % REC:	110.0	
BLANK, mg/L:	<0.04			

SETUP DATE	SEQUENCE ID							
12.15.23	IC-121523-11							
SAMPLE ID	RESULT 1	RESULT 1 RESULT 2 RPD						
12826	10.8	10.8	0.3					
SPIKE ID:	RESULT 1	RESULT 2	% REC					
29664-23 Q3	0.0	127.5	124.3					
IPCS-1 % REC:	108.2	IPCS-2 % REC:	107.9					
LCS % REC:	107.4	LCSD % REC:	107.2					
BLANK, mg/L:	<0.04							

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 *ANALYTICAL REPORT*

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CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO					
CENTRAL PLANT ANALYSIS					
REPORT ID:	WACOCP-011624				
LAB CONTACT:	SHAY OCHOA				
REPORT DATE:	1.16.24				

METALS

Batch ID	ICP-122	623-06-01	Date Analyzed	12.27.23	MS Sample ID	29634-23				
PARAMETER	Blank	LCS % Rec	LCSD % Rec	LCS %RPD	Reference Sample	Matrix Spike	MS % Rec	Matrix Spike Duplicate	MSD % Rec	Flags
Total Aluminum, mg/L	<0.005	98.4	98.9	0.51	0.0077	0.4869	95.8	0.4891	96.3	
Total Antimony, mg/L	<0.0005	99.5	100.5	1.00	0	0.4739	94.8	0.488	97.6	
Total Arsenic, mg/L	<0.0005	98.5	98.2	0.31	0	0.4824	96.5	0.4817	96.3	
Total Barium, mg/L	<0.0005	98.8	98.3	0.51	0.0469	0.5147	93.6	0.527	96.0	
Total Beryllium, mg/L	<0.0005	105.2	105.9	0.66	0	0.5278	105.6	0.527	105.4	
Total Cadmium, mg/L	<0.0005	99.9	99.2	0.70	0	0.4875	97.5	0.4879	97.6	
Total Chromium, mg/L	<0.0005	104.1	104.6	0.48	0.0008	0.5159	103.0	0.5151	102.9	
Total Copper, mg/L	<0.0005	107.8	108.2	0.37	0.001	0.5372	107.2	0.5352	106.8	
Total Lead, mg/L	<0.0005	95.8	93	2.97	0	0.4712	94.2	0.4606	92.1	
Total Magnesium, mg/L	<0.05	101.7	102.2	0.49	9.3268	59.8872	101.1	58.9378	99.2	
Total Manganese, mg/L	<0.0005	101.4	101.7	0.30	0.1446	0.6421	99.5	0.6414	99.4	
Total Molybdenum, mg/L	<0.0005	98.6	97.6	1.02	0	0.4784	95.7	0.4769	95.4	
Total Nickel, mg/L	<0.0005	107.6	108.5	0.83	0.0076	0.5417	106.8	0.5438	107.2	
Total Selenium, mg/L	<0.0005	96.3	95.1	1.25	0.0007	0.4534	90.5	0.452	90.3	
Total Silver, mg/L	<0.0005	96.9	96.6	0.31	0	0.4181	83.6	0.4114	82.3	
Total Strontium, mg/L	<0.005	100.8	100.3	0.50	0.1959	4.8433	92.9	4.8563	93.2	
Total Thallium, mg/L	<0.0005	96.4	94	2.52	0	0.4704	94.1	0.4585	91.7	
Total Zinc, mg/L	<0.005	107.9	109.2	1.20	0.016	0.6443	125.7	0.6402	124.8	

Batch ID	ICP-010	224-01-01	Date Analyzed	1.3.24	MS Sample ID	29644-23				
PARAMETER	Blank	ICV % Rec	ECV % Rec	LCS %RPD	Reference Sample	Matrix Spike	MS % Rec	Matrix Spike Duplicate	MSD % Rec	Flags
Total Aluminum mg/L	< 0.005	102.8	103.4	0.58	32.5323	36.1751	72.9	36.7237	83.8	Q3

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4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

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CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

	DECEMBER 2023 - CITY OF WACO
	CENTRAL PLANT ANALYSIS
REPORT ID:	WACOCP-011624
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	1.16.24

OIL & GREASE

% DEV: PRECISION ACCEPTABLE RANGE 0-10%

LCS % REC: ACCEPTABLE RECOVERY 78-114%

QCS % REC: ACCEPTABLE RECOVERY 78-114%

MATRIX SPIKE % REC: (OIL&GREASE): ACCEPTABLE RECOVERY 78-114% (RUN AS SAMPLE VOLUME ALLOWS)

MATRIX SPIKE DUPLICATE% REC (OIL&GREASE): ACCEPTABLE RECOVERY 78-114%

OIL&GREASE BLANK: ≤ 1.4 mg/L

SULFIDE

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

HEXAVALENT CHROMIUM

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.003 mg/L

% DEV: PRECISION ACCEPTABLE RANGE 0-10%

ANION ANALYSIS

BLANK: <RL mg/L OF TARGET ANION

LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110%

MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL

IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

TKN

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BI_ANK: < 0.25 mg/L

TOTAL PHOSPHORUS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.025 mg/L P

METALS

RPD: PRECISION ACCEPTABLE RANGE 0-20%
LCS % REC: ACCEPTABLE RECOVERY 85-115%
MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 70-130%
BLANK: < RL

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab. Inc.



 Page 15 of 25
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.
Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
Q3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
QS3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be
	statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
Q4	Sample specific duplicate precision outside desired range.
QM1	Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
QM2	Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
QM3	Microbiology precision outside desired range.
B1	Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
B2	Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
В3	Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
W1	Result is an average of multiple weighing / drying cycles.
С	Reported result over the laboratory's calibration range
C1	Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
J5	Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
ND	Not detected
V	Additional sample volume would have been required to meet analytical method specifications.
HT	Sample analysis performed outside method / regulatory prescribed holding time.
T	Sample received outside method / regulatory prescribed requirements for thermal preservation.
P	Sample received outside method / regulatory prescribed requirements for pH preservation.
Α	Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
N	The associated analysis was performed by a network / sub-contract laboratory.
L	Laboratory Error
PW	Potable Water
NPW	Non-Potable Water
Z	Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

lient/Project: ddress: 1147			Road				rcia / Scott Espen 99-2439 / 254-299-2448		TX Permit N		0026506 Q0011071-001
Waco	Texas 76	706		FAX No.: 254	-299-2453						beam 1 Hund
Sample ID		Temp T	Sample Name, Site De		ction	Matrix	Container	G/	Preser-	Verified	Analysis Requested
Labo	ratory Use Only	y	or Case Numbe	f Start Date	Start Time		Number/ Volume / Type	/c	vation	(F2-F8)	Allalysis Requested
9638-23		3.3 3	2 Central Plant Influent	12/12/2023	18:00PM	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease
9642-33		1	Central Plant Influent	12/12/2023	19:00bv	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide
9643-13		+_	Central Plant Influent	12/12/2023	19:00BM	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex -9. 5 Z
		+									
		_					W. C.				
Use 40 CFR 1 Contract Lab Contract Labo Make sure to	36 Approv Must be N oratory will report Chr	ved Meth ELAP Ac I compos omium T noldtime/s	credited. site Phenols, Cyanide, Sulfi	de, Volatiles & Chromiu	m, Hex	Time	i Received by:		Negati Chran 15 mi	ue e h	for hydrogen Sulfide lex filtered within of grab
2-12-23	12:20pm		hiz Hang	A BC BH	12/14/23	7:30	()0 () () ()				
2/14/23	1630	2	ou to ly	A Or C	12.14.23	1030	ma Care				
2.14.23	1710	_	255	A or C	12.14.23	710	58				
				A or C							
				to the second second	T.	1					
				A or C				_		-1-	2.2
			nwater \$-Sludge/Soil/Sedim	A or C		Preserv	ation: F -Field, L -Lab Plus: (1)cool to 4o0	Thern	nometer ID:	(3)HNO	/ 3 to pH<2

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

Page 16 of 25

^{*} Fill out all highlighted sections on Chain of Custody.

^{*} Refrigerator A must have a custody seal.

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

TELEPHONE: (254) 299-2450

Waco, Texas 76707 FAX: (254) 299-2453 Client/Project: Central Plant Contact: Tina Dabbs Michael Garcia / Scott Espen TX Permit No.: TX0026506 Phone No.: 254-299-2444 / 254-299-2439 / 254-299-2448 Address: 1147 Treatment Plant Road WQ Permit No.: WQ0011071-001 Waco Texas 76706 FAX No.: 254-299-2453 Collected by: LARRY CWONET Sample ID Temp | Sample Name, Site Description Collection Matrix Container Preser-Verified Analysis Requested or Case Number Start Date Start Time Number/ Volume / Type vation (F2-F8) Laboratory Use Only 3.3 3.2 29639-23 1800 Central Plant Influent AQ 12/12/2023 G 1-1000 mL AG H2S04 F2 Oll and Grease 29642-23 1800 Central Plant Influent AQ 12/12/2023 1-500 mL P G NaOH/ZnOAC F8 Sulfide 29643-23 1800 Central Plant Influent 12/12/2023 1-250 mL P G pH 9.3-9.7 F1 Chrome, Hex Customer Comments: Additional Comments: Contract Lab must measure down to the MAL. See MAL list attached. MIG. H2 S CHOOME HIEX FILTERED IS MINS Use 40 CFR 136 Approved Methods. Contract Lab Must be NELAP Accredited. Contract Laboratory will composite Phenols, Cyanide, Sulfide, Volatiles & Chromium, Hex Make sure to report Chromium Tri. If sample is received outside holdtime/s or preservation requirements, initial to authorize analysis Placed in Refrigator/ Initials Time Relinquished by: B. Z.O. 12/14/23 12-12-23 18:15 2/14/23/030 2.14.23 1030 A or C 12.14.23 12.14.23 A or C A or C A or C A or C Thermometer ID: Preservation: F -Field, L -Lab Plus: (1)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 to pH<2 Matrix: AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water

Container: P- Plastic G-Clear Glass AG -Amber Glass WP -Whirl Pak VOA -40ml vial SBB- Sterile Black Bags

(4)HCl to pH<2 (5)Na2S2O3 (6)NaOH to pH>12 (7)None (8)Other, as noted (9) NaOH pH 12.0 to 12.5 s.u.

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA

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FAX: (254) 299-2453

TELEPHONE: (254) 299-2450

Client/Project: Address: 114	7 Treatm	ent Pla	ant Ro		Phone No.: 2	54-299 - 2444 /		a / Scott Espen -2439 / 254-299-2448			No.: W	Q0011071-001
Waco	Texas 7	706			FAX No.: 254-	299-2453				Collected	by:	HARRY ONDRET
Sample ID		Obs Temp *C	Corr Temp *C	Sample Name, Site Description	Colle	ction	Matrix	Container	G/	Preser-	Verified	Analysis Requested
Labo	ratory Use O			or Case Number	Start Date	Start Time		Number/ Volume / Type	/c	vation	(F2-F8)	Analysis Requested
29640-23		3.3	3,2	Central Plant Influent	12/13/2023	0:00	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease
29642-23		1	1	Central Plant Influent	12/13/2023	0: 00	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide
29643-33		1	<u></u>	Central Plant Influent	12/13/2023	0:00	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex
										-		
Customer (litional Commer		
* Use 40 CFR * Contract Lab * Contract Lab * Make sure to	136 Appro Must be oratory w report Cl	oved M NELAP ill com nromiu	Accred posite m Tri.		norize analysis:	m, Hex				NEG.	- 1 nE	425 HEX 15-MINUTES
Date:	Time	Re	linqui	shed by:		Date:	Time	Received by:				
12-13-23	173		J.	andy.	ASC LO	12/14/23	730	Imagall.				
12/14/123	1030	0	long	Salth	A or C	1214.23	1030	076				
12.14.23	1710		2	6	A or C	12.14.23	טודו	226				
					A or C							
					Aor C				Then	mometer ID:	1/	21
Matrix: AQ -A	queous	SW-S	tormwat	ter S-Sludge/Soil/Sediment P-	-			ation: F -Field, L -Lab Plus: (1)cool to 4oC (pH<2 (5)Na2S2O3 (6)NaOH to pH>12	2)H2S	SO4 to pH<2 (3)	HNO3 to	

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

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WACO, TEXAS 76702-2570

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REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project: Address: 114		ent Pla	ant Roa			54-299-2444 /		a / Scott Espen -2439 / 254-299-2448	TX Permit No.: TX0026506 WQ Permit No.: WQ0011071-001					
Waco	Texas /	3700			FAX NO 204	233-2403				Collected	Dy:	fully origin.		
Sample ID		Obs Temp *C	Corr Temp *C	Sample Name, Site Description	Colle	ction	Matrix	Container	G/	Preser-	Verified	Analysis Requested		
Labo	oratory Use O	niy		or Case Number	Start Date	Start Time		Number/ Volume / Type	/c	vation	(F2-F8)	Analysis Requested		
29641-23		3.3	3.2	Central Plant Influent	12/13/2023	600M	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease		
29642-23				Central Plant Influent	12/13/2023	600 AM	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide		
29643-23		1	+	Central Plant Influent	12/13/2023	COCOAM	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex		
				33										
											-			
Customer C	`ommer) te:			and the second second				Addi	tional Commen	to:			
* Use 40 CFR * Contract Lab * Contract Lab * Make sure to	136 Appro Must be oratory w report Ch	oved Mo NELAP ill com promius	Accreo posite I n Tri.		tiles & Chromiu	m, Hex				Filter Wit	red hir gat	for chromium Hex 15 mins ive for HZS		
il adiripie is recen	red datable	loideire	era di pi	eservanor regulierrenis, ininai to aut	Placed in Refrigator/					, ,	,			
Date:	Time	Rel	inqui	shed by:	Initials	Date:	Time	Received by:						
12/13/23	405A	m	1	weller hypory	Dorc KR	5 MIC	730	Dona wall						
12/14/23	1030	J-179	In	a Jalik	A or C	12.14.23	1030	BBB						
12.14.23	1710	0	3	3	A or C	12.14.23	1710	82 B						
					A or C									
					A or C			1947			-4	2000		
			1/2		Aor C		Preservat	ion: F -Field, L -Lab Plus: (1)cool to	Thern	nometer ID:	2 (3)HN	NO3 to nH<2		
				er S-Sludge/Soil/Sediment P-			(4)HCI to	pH<2 (5)Na2S2O3 (6)NaOH to ph						
				AG-Amber Glass WP-Whirl Pa			le Black B	ags						

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

Page 19 of 25

Fill out all highlighted sections on Chain of Custody.

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

								OF WAC						
Client/Project:					Contact: Tina I					***		TX Perm	it No.	: TX0026506
Address: 114			ant Ro	ad	Phone No.: 25		1-299-2439 / 254	1-299-2448						.: WQ0011071-001
Waco	Texas 7	6706	_		FAX No.: 254-2	99-2453			_			Collect	ed by	1: Joseph Owen
Sample ID		Obs Temp *C	Corr Temp *C	Description of Case		Collec			Matrix	Container	G/	Preser-		Analysis Requested
Labo	atory Use O	n/y	_	Number	Start Date	Start Time	End Date	End Time		Number/ Volume / Type	/ c	vation	(F2-F8)	V Committee Comm
29644-23		3.3	3.2	Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ	1-250 mL P	С	HN03	F3	 Metals - Antimony, Arsenic, Beryllium, Cadium, Chromium (T), Coppe Lead, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, Aluminum, Barium, Manganese, Magnesium and Stronium
29645-23		1	1	Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ	1-250 mL P	С	H2S04	F2	(T) Phosphorus & TKN-BCC 1.0
29646A-23		1	1	Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ	1-250 mL P	С		F1	Flouride, Nitrate Nitrogen, Nitrite Nitrogen & Ortho-Phoshate
29646-23	,	_	_	Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ	2-Liter G	C.	H2S04	F2	Nonyiphenol - 1 · 0
ustomer C	ommer	its:				-				X	Addit	ional Com	ments:	
Use 40 CFR 13 Contract Lab M	Approve	ed Metho	ods. credited	MAL. See MAL list attached i. eservation requirements, initia	il to authorize anal						ſ	Vego Str	ip.	s-725511576
Date:	Time	Rei	inauis	shed by:		Placed in Refrigator Initials	Date	Time	Recei	ved by				
11/13/23	12:30	-	_	seph Owen		A one A		7:30	1	e Calif				
214/23	(030	19	ms	- 10.01			12.14.23	1030	13	3 Dawn				
12.14.23	1710	6	5	76			12.14.23	1710	1	3-8				
						A or C								
						A or C								
						Aor C					Therm	ometer ID	10	2
	parameter o			er S-Sludge/Soil/Sedimer		rater	(4)HCl to pH<2	(5)Na2S2O3		to pH>12 (7)None (8)Other, as noted	to pH<2	2		
				AG -Amber Glass WP -V			BB- Sterile Blac	жыags		HOS - L	_			

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Page 20 of 25

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570 TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project:								a / Scott Espen		TX Permit N			
Address: 1147			it Roa	ıd			254-299	-2439 / 254-299-2448				Q0011071-001	
Waco	Texas 76	706			FAX No.: 254-	299-2453				Collected	by:	hanny	crones
Sample ID		Obs Temp *C T	Corr emp °C	Sample Name, Site Description	Collec	ction	Matrix	Container	G/	Preser-	Verified	1	Analysis Requested
Labo	ratory Use On	y		or Case Number	Start Date	Start Time		Number/ Volume / Type	/c	vation	(F2-F8)		
29647-23		3.3	3.2	Central Plant Effluent	12/13/2023	0:00	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease	
29651-23				Central Plant Effluent	12/13/2023	0:00	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide	
29652-23				Central Plant Effluent	12/13/2023	0:00	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex	-9.53
					1								
													10
* Use 40 CFR 1 * Contract Lab	must mea 136 Appro Must be I oratory wi	sure do ved Met NELAP /	thods. Accred osite F			п, Нех			Victoria (His G Wis G-		25	S MENDIUS
If sample is receiv	red outside	holdtime	s or pre	eservation requirements, initial to aut	horize analysis:		_			CHROMO	- 4	IEX 15	MINUTUS
Date:	Time	Reli	nauis	shed by:	Placed in Refrigator/ Initials	Date:	Time	Received by:					
12-13-23	-		0	12:	ABC L.O.	12/14/23	7:30	2.21					
12/12/23	1030	2	na	Valor	A or C	12.14.23	1030	100					
12.14.23	1710	1		5	A or C	17-14-23	1710	1278					
					A or C		-						
	-				A or C		-	100 100 100		9	-2	-	
Motriy : AC A	L	CIN CIO	rmust	er S-Sludge/Soil/Sediment P	A or C			tion: F - Field, L - Lab Plus: (1)cool to 4o	C (2)F	12SO4 to pH<2	(3)HNO:	3 to pH<2	
The state of the s			needown.co	AG -Amber Glass WP -Whirl Pa	.ec section and accompanies.	al SRR. Sto	(4)HCl to	pH<2 (5)Na2S2O3 (6)NaOH to pH>1	12 (7)	None (8)Other,	as noted	i (9) NaOH pH 12	.0 to 12.5 s.u.

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

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CLIENT IDENTIFICATION INFORMATION: CITY OF WACO PO BOX 2570 WACO, TEXAS 76702:2570

REP REP

1.16.24	ORT DATE:
SHAY OCHOA	CONTACT:
WACOCP-01162	ORT ID:
CENTRAL PLANT ANALYSIS	
DECEMBER 2023 - CITY OF WACO	

lient/Project:								a / Scott Espen	X = _	TX Permit N		
Address: 1147	-	-	nt Roa				254-299	2439 / 254-299-2448		WQ Permit !	No.: W	20011071-001
Waco	Texas 76	706			FAX No.: 254	-299-2453				Collected	by:	Clittoid Croshx
Sample ID		Obs Temp "C	Corr Temp °C	Sample Name, Site Description or Case Number	Colle Start Date	Start Time	Matrix	Container	6/	Preser-	Verified	Analysis Requested
	atory Use On				Start Date	Start Time		Number/ Volume / Type	/ c	vation	(F2-F8)	
29648-23		33	3,2	Central Plant Effluent	12/13/2023	06:00	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease
29651-23		1	1	Central Plant Effluent	12/13/2023	06:00	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide
29652-23	-	+	+	Central Plant Effluent	12/13/2023	06:00	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex
			-									

Customer C										tional Commen		
* Use 40 CFR 1 * Contract Lab * Contract Labo * Make sure to	36 Appro Must be I retory wi report Ch	ved Me NELAP / Il comp romium	thods. Accred osite F i Tri.		olatiles & Chron				200	of Cl.	2 ⁵ 2 H	cx 15 min des
Date:	Time	Reli	nquis	shed by:	Initials	Date:	Time	Received by:				
1273-23	06:10	El	for	Ess. J.	AOTO CC	PROCESS AND ADDRESS OF THE PARTY OF THE PART	7:30	ma Dall				
12/14/23	(030	0	na	Still	A or C	12.14.23	1030	195				
12.14.23	1710	1		8	A or C	12.14.23	1710	de la				
					A or C							
					A or C							
					Aor C					nometer ID:	10	25
Conference and Conference	Association II			er S-Sludge/Soil/Sediment			(4)HCI to	on: F -Field, L -Lab Plus: (1)cool to 4oC oH<2 (5)Na2S2O3 (6)NaOH to pH>12				



Page _ of _

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453 CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

Page 23 of 25

ddress: 1147		nt Pla	nt Roa	ad	Phone No.: 2	54-299-2444		rcia / Scott Espen 99-2439 / 254-299-2448			No.: W	00011071-001
Waco 1	Texas 76	706			FAX No.: 254-	299-2453				Collected	by:	beating trans
Sample ID		Obs Temp *C	Con Temp *C	Sample Name, Site Description	Collect	tion	Matrix	Container	G/	Preser-	Verified	
Labor	atory Use Onl			or Case Number	Start Date	Start Time	Variation of the last	Number/ Volume / Type	/c	vation	(F2-F8)	Analysis Requested
964913		3.3	3.2	Central Plant Effluent	12/13/2023	12:00PM	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease
2651-23		1		Central Plant Effluent	12/13/2023	M900:51	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide
9652-13		+		Central Plant Effluent	12/13/2023	12:00PM	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex
									-			
Use 40 CFR 1: Contract Lab N Contract Labo Make sure to r	nust meas 36 Appro- Must be N ratory wil report Ch	sure do ved Me IELAP Il comp romiun	Accred bosite in Tri.	lited. Phenols, Cyanide, Sulfide, Volal	iles & Chromiu	m, Hex			Addi	Negation Sulfide	ins.	But Filtered Within F grab
ample is receive	ed outside	holdtime	s/s or pre	eservation requirements, initial to auth					L	DIOMA	ur	Camb
ate:	Time	Poli	inauli	shed by:	Placed in Refrigator/	Date:	Timo	Received by:	1	15 min	. 0-	t ala obligios
2-13-23	12:15A	-	THE OWNER WHEN	nettano	A OF C BY	12/14/23	720	Ding Dall	(Morin	e t	est-NO Chlorine
2/14/23	1030	()	me	Call		12.14.23	1030	Marian	'			
2.14.23	1710		9	Z	A or C	12.14.23	1710	1				
			6		A or C		110					
					A or C							
					A or C				Ther	mometer ID:	7/	51

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC.
4751 TOKIO ROAD WEST, TX 76691
CLIENT IDENTIFICATION INFORMATION:

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
WACOCP-011624
SHAY OCHOA
1.16.24

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Bio Chem Lab, Inc. Form.28.Rev.3-2016

P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450
FAX: (254) 299-2453

Wess	: Central F 7 Treatme		Road				rcia / Scott Espen 99-2439 / 254-299-2448	TX Permit No.: TX0026506 WQ Permit No.: WQ0011071-001					
vvaco	Texas 76	706		FAX No.: 25	4-299-2453		9.11 (6.		Collected	by:	LAMMY OWDREST		
Sample ID		Ohs C	Sample Name, Site Description	Coll	ection	Matrix	Container	G/	Preser-	Verified	1		
Labo	oratory Use Oni		or Case Number	Start Date	Start Time		Number/ Volume / Type	/c	vation	(F2-F8)	Analysis Requested		
29650-23		3.3 3.	Central Plant Effluent	12/13/2023	19:00	AQ	1-1000 mL AG	G	H2S04	F2	Oil and Grease		
29651-23		1	Central Plant Effluent	12/13/2023	18:00	AQ	1-500 mL P	G	NaOH/ZnOAC	F8	Sulfide		
29652-23		+-	Central Plant Effluent	12/13/2023	18:00	AQ	1-250 mL P	G	pH 9.3-9.7	F1	Chrome, Hex		
							1.22						
	-												

								0.44	tional Commen	fo.			
Customer C	Commen	ts:						Addi	donar Commen	13.			
Contract Lab (Use 40 CFR Contract Lab Contract Lab	must meas 136 Appro Must be N oratory wi	sure down ved Metho IELAP Aco	redited. te Phenols, Cyanide, Sulfide, Vola		ium, Hex			0.00			. 5 2		
Contract Lab r Use 40 CFR * Contract Lab Contract Lab Make sure to	must mea: 136 Appro Must be N oratory wil report Ch	sure down ved Metho IELAP Aco II compos romium T	ds. redited. te Phenols, Cyanide, Sulfide, Vola	tilles & Chrom	ium, Hex			0.00			S 2 KY -15 MIANTES		
Contract Lab r Use 40 CFR of Contract Lab of Contract Lab of Make sure to sample is received.	must mean 136 Appro Must be N oratory wil report Chi ved outside	sure down ved Metho IELAP Accill compos romium T holdtime/s o	ods. redited. te Phenols, Cyanide, Sulfide, Vola i. r preservation requirements, initial to aut	horize analysis: Placed in Refrigato		Time	Pagained by:	0.00			S 2 KY -15 MIANTES		
Contract Lab I Use 40 CFR ' Contract Lab Contract Lab Make sure to sample is received.	must meas 136 Appro Must be N oratory wil report Chi ved outside	sure down ved Metho IELAP Accill compos romium T holdtime/s o	ds. redited. te Phenols, Cyanide, Sulfide, Vola i.	horize analysis: Placed in Refrigato r/ Initials	Date:	or Designation of the last	Received by:	0.00			.5 2 KT -15 MINUTES		
Contract Lab I Use 40 CFR ' Contract Lab Contract Lab Make sure to sample is received.	must mean 136 Appro Must be Noratory will report Chived outside	sure down ved Metho IELAP Accill compos romium T holdtime/s o	ods. redited. te Phenols, Cyanide, Sulfide, Vola i. r preservation requirements, initial to aut	horize analysis: Placed in Refrigato r/ Initials		7:30	Received by:	0.00			S 2 KY -15 MIANTES		
Contract Lab Use 40 CFR Contract Lab Contract Lab Make sure to sample is recently contract Lab Con	must meas 136 Appro Must be N oratory wil report Chi ved outside	sure down ved Metho IELAP Accill compos romium T holdtime/s o	ods. redited. te Phenols, Cyanide, Sulfide, Vola i. r preservation requirements, initial to aut	horize analysis: Placed in Refrigato r/ Initials	Date:	or Designation of the last	Received by:	0.00			S 2 Kr -15 MIANTIES		
Contract Lab Use 40 CFR Contract Lab Contract Lab Make sure to sample is recent	must mean 136 Appro Must be Noratory will report Chived outside	sure down ved Metho IELAP Accill compos romium T holdtime/s o	ods. redited. te Phenols, Cyanide, Sulfide, Vola i. r preservation requirements, initial to aut	Placed in Refrigato r/ Initials AGC LO	Date: 12/14/73.12.14.23	7:30	Received by:	0.00			S 2 EX -15 MIAUTIES		
Contract Lab Use 40 CFR Contract Lab Contract Lab Make sure to	must mean 136 Appro Must be Noratory will report Chived outside	sure down ved Metho IELAP Accili compos romium T holdtime/s o	ods. redited. te Phenols, Cyanide, Sulfide, Vola i. r preservation requirements, initial to aut	horize analysis: Placed in Refrigato r/ Initials AG C L O A or C	Date: 12/14/73.12.14.23	7:30	Received by:	0.00			S 2 ET -15 MIANTES		

^{*} Fill out all highlighted sections on Chain of Custody.

^{*} Refrigerator A must have a custody seal.

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project: Central Plant Address: 1147 Treatment Plant Road Waco Texas 76706				Contact: Tina Dabbs Michael Garcia / Scott Espen Phone No.: 254-299-2444 / 254-299-2439 / 254-299-2448 FAX No.: 254-299-2453								TX Permit No.: TX0026506 WQ Permit No.: WQ0011074:001 Collected by:				
Sample ID	Tem	Temp	Sample Name, Site		Collection	n		Matrix	Container	G/	Preser-	Verified				
Labor	alory Use Only	40	Description or Case Number	Start Date	Start Time	End Date	End Time		Number/ Volume / Type	/c	vation	(F2.F8)	Analysis Requested			
29653+3	33	3.2	Central Plant Effluent	12/13/2023	0.01	12/13/2023	23:59	AQ	1-250 mL P	С	HN03	F3	* Metals - Antimony, Arsenic, Beryllium, Cadium, Chromium (T), Coppe Lead, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, Aluminum Barium, Manganese, Magnesium and Stronium			
2965423		1	Central Plant Effluent	12/13/2023	0:01	12/13/2023	23:59	AQ	1-250mL P	c	H2S04	F2	(T) Phosphorus & TKN -BCL 1-0			
2965573			Central Plant Effluent	12/13/2023	0:01	12/13/2023	23:59	AQ	1-250 mL P		1,2001		Flouride, Nitrate Nitrogen, Nitrite Nitrogen & Ortho-Phoshate			
29656-23	+	-									discourage and		5.50.00 1.00 1.00 1.00 1.00 1.00 1.00 1.			
1020 5		1	Central Plant Effluent	12/13/2023	0:01	12/13/2023	23:59	AQ	2-Liter AG	C	H2S04	F2	Nonylphenol			
		+-		-				-		_		_				
		1														
		+						_				_				
		-	1/2													
Customer C	omments:			,						Addit	tional Com	ments:				
Contract Lab mu	Approved Met	hods.	MAL. See MAL list attached.	d.							,	Ne	active HZS			
Contract Lab M	ed outside holdti	me/s or pr	reservation requirements, in	tial to authorize analy	sis						+	,	/v.5			
* Contract Lab M	ed outside holdti	me/s or pr	reservation requirements, in		sis: Placed in						str	יי	/v·J 5-775511.57/			
Contract Lab M					Placed in Refrigator/						str	PS	pative HZS Negative C12 5-725511576			
* Contract Lab M if sample is receiv Date:	Time R	elinqui	reservation requirements, in		Placed in Refrigator/ Initials	Date	Time 7'2	Recei	ived by		str	ps	7V-J 5-7255 11572			
Contract Lab M If sample is receive Date: 2/ 14 23	Time R	elinqui			Placed in Refrigator/	12/14/23	7:30	Recei	ived by		str	פקים	7V-3 5-72551157L			
T sample is received by the sample is receiv	Time R 12:05Am	elinqui		A (Placed in Refrigator/ Initials	12.4.23	7:30	Recei	ived by		str	פקו	7V-J 5-72551157[
Date: 12/14/23	Time R	elinqui		A (Placed in Refrigator/ Initials	12/14/23	7:30	Recei	ived by		str	פקים	7V-J 5-72551157 <u>/</u>			
T sample is received by the sample is receiv	Time R 12:05Am	elinqui		AV (Placed in Refrigator/ Initials Or C KL	12.4.23	7:30	Rece	ived by							
T sample is received by the sample is receiv	Time R 12:05Am	elinqui		A (Placed in Refrigator/ Initials Or C KL	12.4.23	7:30	Recei	ived by		ndy ple	ase re	ecord the Total Nitrogen result on the analytical			

* Fill out all highlighted sections on Chain of Custody.

* Refrigerator A must have a custody seal.

DECEMBER 2023 - CITY OF WACO
CENTRAL PLANT ANALYSIS
REPORT ID: WACOCP-011624
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.16.24

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

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^{*} Refrigerator C is located in WMARSS Lab and locked at all times.



Page 1 of 1



BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

TABLE OF CONTENTS

Central Plant Effluent

This report consists of this Table of Contents and the following pages:

Report Name	Description	<u>Pages</u>
1084666_r02_01_ProjectSamples	SPL Kilgore Project P:1084666 C:BCLI Project Sample Cross Reference t:304	1
1084666_r03_03_ProjectResults	SPL Kilgore Project P:1084666 C:BCLI Project Results t:304	2
1084666_r10_05_ProjectQC	SPL Kilgore Project P:1084666 C:BCLI Project Quality Control Groups	2
1084666_r99_09_CoC1_of_1	SPL Kilgore CoC BCLI 1084666_1_of_1	1
	Total Pages:	6

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 7



SAMPLE CROSS REFERENCE



Printed

12/28/2023

Page 1 of 1
Central Plant Effluent

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

Sample	Sample ID	Taken	Time	Received
2257113	29656-23	12/13/2023	23:59:00	12/15/2023

Bottle 01 Client supplied H2SO4 Amber Glass

Bottle 02 Client supplied H2SO4 Amber Glass

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
ASTM D7065-11	03	1096413	12/20/2023	1096951	12/27/2023

Email: Kilgore.projectmanager@spl-inc.com



Office: 903-984-0551 * Fax: 903-984-5914



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Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691



Printed: 12/28/2023

Central Plant Effluent

RESULTS

			Sample	Results					
	2257113 29656-23	Cor	np: 12/13	001 - 2359			Received:	12/15	5/2023
	Non-Potable Water Composite Stop 23:59 12/13/23	Collected by: Client Taken: 12/13/2023		m Lab, Inc. 23:59:00		PO:			
-	ASTM D7065-11	Prepared:	1096413	12/20/2023	13:00:00	Analyzed 1096951	12/27/2023	23:57:00	DW.
	Parameter	Results	Uı	nits RL		Flags	CAS		Bottle
	Nonylphenol	<0.0287	mį				25154-52-3		03
		S	ample Pr	reparation					
	2257113 29656-23	Cor	mp: 12/13	001 - 2359			Received:	12/15	5/2023
	Composite Stop 23:59 12/13/23	12/13/2023							
-		Prepared:		12/18/2023	14:32:50	Calculated	12/18/2023	14:32:50	CAL
	Environmental Fee (per Project)	Verified							
-	ASTM D7065-11	Prepared:	1096413	12/20/2023	13:00:00	Analyzed 1096951	12/27/2023	23:57:00	DW
	Nonyl Phenol Expansion	Entered							03
	EPA 625.1	Prepared:	1096413	12/20/2023	13:00:00	Analyzed 1096413	12/20/2023	13:00:00	CRS
	Nonylphenol Liq-Liq Extract	1/1044							



Report Page 3 of 7



BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691



Printed: 12/28/2023

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



Report Page 4 of 7

Page 1 of 2

Project 1084666

Printed 12/28/2023

BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

Analytical Set	1096951									ASTM I	07065-11
,				Bla	ank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Nonylphenol	1096413	ND	5.00	30.0	ug/L			125796281			
				C	cv						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Nonylphenol		155000	150000	ug/L	104	70.0 - 130		125796280			
Nonylphenol		138000	150000	ug/L	92.2	70.0 - 130		125796306			
				IS A	reas						
<u>Parameter</u>	Sample	Туре	Reading	CCVISM	Low	High		File	PrepSe	t	
Acenaphthene-d10-ISTD	620516	CCV	334500	334500	167200	501700		125796280	620516		
Acenaphthene-d10-ISTD	620516	CCV	300600	334500	167200	501700		125796306	620516		
Phenanthrene-d10-ISTD	620516	CCV	456900	456900	228500	685400		125796280	620516		
Phenanthrene-d10-ISTD	620516	CCV	457300	456900	228500	685400		125796306	620516		
Acenaphthene-d10-ISTD	1096413	Blank	172800	334500	167200	501700		125796281	109641	3	
Acenaphthene-d10-ISTD	1096413	LCS	177600	334500	167200	501700		125796282	109641	3	
Acenaphthene-d10-ISTD	1096413	LCS Dup	177900	334500	167200	501700		125796283	109641	3	
Phenanthrene-d10-ISTD	1096413	Blank	245600	456900	228500	685400		125796281	109641	3	
Phenanthrene-d10-ISTD	1096413	LCS	236500	456900	228500	685400		125796282	109641	3	
Phenanthrene-d10-ISTD	1096413	LCS Dup	264300	456900	228500	685400		125796283	109641	3	
Acenaphthene-d10-ISTD	2257113	Unknown	180700	334500	167200	501700		125796301	109641	3	
Phenanthrene-d10-ISTD	2257113	Unknown	283400	456900	228500	685400		125796301	109641	3	
				IS Re	tTime						
<u>Parameter</u>	Sample	Type	Reading	CCVISM	Low	High		File	PrepSe	t	
Acenaphthene-d10-ISTD	620516	CCV	6.459	6.459	6.399	6.519		125796280	620516		
Acenaphthene-d10-ISTD	620516	CCV	6.465	6.459	6.399	6.519		125796306	620516		
Phenanthrene-d10-ISTD	620516	CCV	7.662	7.662	7.602	7.722		125796280	620516		
Phenanthrene-d10-ISTD	620516	CCV	7.668	7.662	7.602	7.722		125796306	620516		
Acenaphthene-d10-ISTD	1096413	Blank	6.460	6.459	6.399	6.519		125796281	109641	3	
Acenaphthene-d10-ISTD	1096413	LCS	6.459	6.459	6.399	6.519		125796282	109641	3	
Acenaphthene-d10-ISTD	1096413	LCS Dup	6.459	6.459	6.399	6.519		125796283	109641		
Phenanthrene-d10-ISTD	1096413	Blank	7.657	7.662	7.602	7.722		125796281	109641	3	
Phenanthrene-d10-ISTD	1096413	LCS	7.662	7.662	7.602	7.722		125796282	109641	3	
Phenanthrene-d10-ISTD	1096413	LCS Dup	7.656	7.662	7.602	7.722		125796283	109641		
Acenaphthene-d10-ISTD	2257113	Unknown		6.459	6.399	6.519		125796301	109641		
Phenanthrene-d10-ISTD	2257113	Unknown	7.662	7.662	7.602	7.722		125796301	109641	3	
				LCS	Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1096413	136	141		150	56.0 - 112	90.7	94.0	ug/L	3.57	30.0
				М	SD						
<u>Parameter</u>	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Nonylphenol	2257095	101	125	23.9	146	56.0 - 112	53.2 *	69.7	ug/L	26.9 *	22.0



Report Page 5 of 7

QUALITY CONTROL



Page 2 of 2

Project 1084666

Printed 12/28/2023

BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

Surrogate

<u>Parameter</u>	Sample	Туре	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	620516	CCV	27300	25000	ug/L	109	50.0 - 130	125796280
4-Nonylphenol-SURR	620516	CCV	24200	25000	ug/L	96.8	50.0 - 130	125796306
4-Nonylphenol-SURR	1096413	Blank	22400	25000	ug/L	89.6	50.0 - 130	125796281
4-Nonylphenol-SURR	1096413	LCS	21100	25000	ug/L	84.4	50.0 - 130	125796282
4-Nonylphenol-SURR	1096413	LCS Dup	20200	25000	ug/L	80.8	50.0 - 130	125796283
4-Nonylphenol-SURR	2257113	Unknown	11.6	23.9	ug/L	48.5 *	50.0 - 130	125796301

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate

(same standard (replicate of the

matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); Surrogate Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4
TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal stadard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard and is used to measure the relative responses of other analytes in the same sample or standard.)



Report Page 6 of 7

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707

Per (254 1/28) - 2450
FAX: (254 1/28) - 2453

Address: 1147	Central		Road		Dabbs Michael 54-299-2444 / 21								TX0026506
	Texas 7			FAX No.: 254		M-200-2430 / Z	04-233-2440				Collec		: WQ0011074-001
	,										COHEC	ieu bj	- milety togethe
Sample ID	<u> </u>	Temp Te	Sample Name, Site Description or Case		Collect	on		Matrix	Container	G/	Preser-	Verified	Analysis Revented
Labor	vatory Use O	ny	Number	Start Date	Start Time	End Date	End Time		Number/ Volume / Type	/c	vation	(F2-F8)	Analysis Requested
		i											
	ļ		1										* Metals - Antimony, Arsenic, Beryllium, Cadium, Chromium (T), Cop
			Central Plant Effluent	12/13/2023	0:01	12/13/2023	22.50		i	۱.			Lead, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, Alumin
				12,10/2020	0.01	1211012023	23:59	_AQ	1-250 mL P	С	HND3	F3	Barium, Manganese, Magnesium and Stronium ~ B < <
	 	-	Central Plant Effluent	12/13/2023	0:01	12/13/2023	23:59	AQ	1-250mL P	С	H2S04	F2	(T) Phosphorus & TKN -B<
			Central Plant Effluent	12/13/2023	0:01	12/13/2023	23:59	AQ	1-250 mL P	c		F1	Flouride, Nitrate Nitrogen, Nitrite Nitrogen & Ortho-Phoshate -8<
9656-23												- '	Trounds, Hiddle Hidden, Hinte Hinden & Citild-Filosiale
1020 5	1		Central Plant Effluent	12/13/2023	D:01	12/13/2023	23:59	AQ	9257173 2-Liter AG	С	H2S04	F2	Nonylphenol
	ļ												
ĺ													
							 			I	' —		
	ļ						L	'					
											_		
							12/15	/2023	3 1243 JLG		_		
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							Temi	p: 1.1	/1.0 C				-
						,	† ' · · ·	'	Corr Each -0.1 C		-		
	<u> </u>						Ther	m#: 6	3443 Corr Fact: -0.1 C				
								. 1					
ustamer C	ommen	ts:								Addit	ional Com	ments:	
ontract Lab mu	st measu	e down to	he MAL. See MAL list attach	ied.									6 0 15 0
Use 40 CFR 136 Contract Lab Mi			ted.									1 /or	rative HZS
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												-	rative H2S Negative C12
										i		/	/ V J
sample is receive	ed outside	holdtime/s o	preservation requirements, in	nitial to authorize analy	sis:		,			l			
					Placed in					Ī			
ļ	T:	D-1:			Refrigator/								
-t i	Time	Relind	uished/by: //		Initials	Date	Time	Rece	ived by				
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2/14/23	12:05	Am	hilly his	\mathcal{N}	Orc KL	10/114163		30					
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21423	12:05 1030 1710	E ON	helly hys	S	A or C	12.14.23	1030						
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1/14/23 1/14/23 2.14:23 2.15:23 2/15/23	12:05 1030 1710 0715 12:355	RON	Ruch		A or C A or C A or C A or C	12.14.23 12.14.23 12.15.23 12/15/23 Preservation F-F	1030 1710 0713 1235	lus: (1)co	Jenniler Garrett SPL, Inc.	Therm 3 to pH	rt. ometer ID:		

^{*} Fill out all highlighted sections on Chain of Custody.

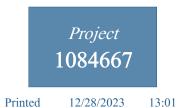
* Refrigerator A must have a custody seal.

* Refrigerator C is located in

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.



Page 1 of 1



BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

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Central Plant Influent

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1084667_r03_03_ProjectResults	SPL Kilgore Project P:1084667 C:BCLI Project Results t:304	2
1084667_r10_05_ProjectQC	SPL Kilgore Project P:1084667 C:BCLI Project Quality Control Groups	2
1084667_r99_09_CoC1_of_1	SPL Kilgore CoC BCLI 1084667_1_of_1	1
	Total Pages:	6

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 7



SAMPLE CROSS REFERENCE



Printed

12/28/2023

Page 1 of 1
Central Plant Influent

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

Sample	Sample ID	Taken	Time	Received
2257114	29646-23	12/13/2023	12:00:00	12/15/2023

Bottle 01 Client supplied H2SO4 Amber Glass

Bottle 02 Client supplied H2SO4 Amber Glass

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
ASTM D7065-11	03	1096413	12/20/2023	1096951	12/28/2023

Email: Kilgore.projectmanager@spl-inc.com



Office: 903-984-0551 * Fax: 903-984-5914



BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691



Printed: 12/28/2023

Central Plant Influent

RESULTS

			Sample	Results					
2257114	29646-23	C	omp: 12/12	1200 - 12/13	1200		Received:	12/15	/202
Non-Potable Wate Composite Stop 1		Collected by: Client Taken: 12/13/2023		m Lab, Inc. 12:00:00		PO:			
ASTM D7065-11	1	Prepare	d: 1096413	12/20/2023	13:00:00	Analyzed 1096951	12/28/2023	01:27:00	D
Parameter		Results		inits RL		Flags	CAS		Botti
Nonylphenol		0.133		g/L 0.0289)		25154-52-3		03
2257114 Composite Stop 1	29646-23		omp: 12/12	1200 - 12/13	1200		Received:	12/15	/2023
	12:00 12/13/23	12/13/2023							
	12/13/23	12/13/2023 Prepare	d:	12/18/2023	14:32:51	Calculated	12/18/2023	14:32:51	C.A
Environmenta	al Fee (per Project)		d:	12/18/2023	14:32:51	Calculated	12/18/2023	14:32:51	C.F.
Environmenta	al Fee (per Project)	Prepare Verified	d: 1096413	12/18/2023	14:32:51	Calculated Analyzed 1096951		14:32:51 01:27:00	
	al Fee (per Project)	Prepare Verified							D
ASTM D7065-11	al Fee (per Project)	Prepare Verified Prepare Entered					12/28/2023		DIV 03



Report Page 3 of 7





Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691



Page 2 of 2

Project 1084667

Printed: 12/28/2023

Qualifiers:

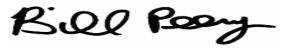
We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



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BCLI-C

Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691 Page 1 of 2

Project

1084667

3

Printed 12/28/2023

								Printed	12/28/20	23	
Analytical Set	1096951									ASTM I	07065-11
				В	lank						
Parameter	PrepSet	Reading	MDL	MQL	Units			File			
Nonylphenol	1096413	ND	5.00	30.0	ug/L			125796281			
				c	CCV						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Nonylphenol		155000	150000	ug/L	104	70.0 - 130		125796280			
Nonylphenol		138000	150000	ug/L	92.2	70.0 - 130		125796306			
7.1				_	Areas						
Parameter	Sampla	Tyma	Reading	CCVISM		High		File	PrepSe	ı.t	
Parameter Acenaphthene-d10-ISTD	Sample 620516	Type CCV	334500	334500	167200	501700		125796280	620516		
Acenaphthene-d10-ISTD	620516	CCV	300600	334500	167200	501700		125796306	620516		
Phenanthrene-d10-ISTD	620516	CCV	456900	456900	228500	685400		125796280	620516		
Phenanthrene-d10-ISTD	620516	CCV	457300	456900	228500	685400		125796306	620516		
Acenaphthene-d10-ISTD	1096413	Blank	172800	334500	167200	501700		125796281	109641		
Acenaphthene-d10-ISTD	1096413	LCS	177600	334500	167200	501700		125796282	109641		
Acenaphthene-d10-ISTD	1096413	LCS Dup	177900	334500	167200	501700		125796283	109641		
Phenanthrene-d10-ISTD	1096413	Blank	245600	456900	228500	685400		125796281	109641		
Phenanthrene-d10-ISTD	1096413	LCS	236500	456900	228500	685400		125796282	109641		
Phenanthrene-d10-ISTD	1096413	LCS Dup	264300	456900	228500	685400		125796283	109641		
Acenaphthene-d10-ISTD	2257114	Unknown		334500	167200	501700	*	125796304	109641		
Phenanthrene-d10-ISTD	2257114	Unknown	303900	456900	228500	685400		125796304	109641	3	
				IS Re	etTime						
Parameter	Sample	Туре	Reading	CCVISM	Low	High		File	PrepSe	of.	
Acenaphthene-d10-ISTD	620516	CCV	6.459	6.459	6.399	6.519		125796280	620516		
Acenaphthene-d10-ISTD	620516	CCV	6.465	6.459	6.399	6.519		125796306	620516		
Phenanthrene-d10-ISTD	620516	CCV	7.662	7.662	7.602	7.722		125796280	620516		
Phenanthrene-d10-ISTD	620516	CCV	7.668	7.662	7.602	7.722		125796306	620516		
Acenaphthene-d10-ISTD	1096413	Blank	6.460	6.459	6.399	6.519		125796281	109641		
Acenaphthene-d10-ISTD	1096413	LCS	6.459	6.459	6.399	6.519		125796282	109641	3	
Acenaphthene-d10-ISTD	1096413	LCS Dup	6.459	6.459	6.399	6.519		125796283	109641	.3	
Phenanthrene-d10-ISTD	1096413	Blank	7.657	7.662	7.602	7.722		125796281	109641	3	
Phenanthrene-d10-ISTD	1096413	LCS	7.662	7.662	7.602	7.722		125796282	109641	3	
Phenanthrene-d10-ISTD	1096413	LCS Dup	7.656	7.662	7.602	7.722		125796283	109641	3	
Acenaphthene-d10-ISTD	2257114	Unknown	6.465	6.459	6.399	6.519		125796304	109641	3	
Phenanthrene-d10-ISTD	2257114	Unknown	7.668	7.662	7.602	7.722		125796304	109641	3	
				LCS	5 Dup						
Parameter	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1096413	136	141		150	56.0 - 112	90.7	94.0	ug/L	3.57	30.0
-				N	1SD				-		
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Nonylphenol	2257095	101	125	23.9	146	56.0 - 112	53.2 *	69.7	ug/L	26.9 *	22.0
1 ton japanono	223,073	101		20.7	1-10	20.0 - 112	JJ.2	07.1	u ₅ , L	20.7	22.0



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QUALITY CONTROL



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Project 1084667

Printed 12/28/2023

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Bio Chem Lab, Inc. Andrew Janek P.O. Box 356 West, TX 76691

Surrogate

<u>Parameter</u>	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	620516	CCV	27300	25000	ug/L	109	50.0 - 130	125796280
4-Nonylphenol-SURR	620516	CCV	24200	25000	ug/L	96.8	50.0 - 130	125796306
4-Nonylphenol-SURR	1096413	Blank	22400	25000	ug/L	89.6	50.0 - 130	125796281
4-Nonylphenol-SURR	1096413	LCS	21100	25000	ug/L	84.4	50.0 - 130	125796282
4-Nonylphenol-SURR	1096413	LCS Dup	20200	25000	ug/L	80.8	50.0 - 130	125796283
4-Nonylphenol-SURR	2257114	Unknown	12.0	24.1	ug/L	49.8 *	50.0 - 130	125796304

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate

(same standard (replicate of the

matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); Surrogate Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4
TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal stadard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard and is used to measure the relative responses of other analytes in the same sample or standard.)



Report Page 6 of 7

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



of 7 of 7 TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

	7 Treatmo	Plant ent Plant I	Road		Dabbs /Michael 54-299-2444 / 254		•					WQ Per	mit No	TX0026506 .: WQ0011071-001
waco	Texas 76	706		FAX No.: 254-	299-2453							Collec	ed by	" Joseph Durch
Sample ID	-	Obs Co Temp C Tem	Sample Name, Site		Collec	tion		Matrix	C	ontainer	G/	Preser-	Verified	
Labor	relory Use On		Description or Case Number	Start Date	Start Time	End Date	End Time	\Box		Volume / Type	Vo		(F2-FB)	Analysis Requested
			Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ		1-250	nLP C	HN03	F3	* Metals - Antimony, Arsenic, Beryllium, Cadium, Chromium (T), Co Lead, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, Alumii Barium, Manganese, Magnesium and Stronium — 8<
			Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	ΑQ		1-250 i	nLP C	H2504		(T) Phosphorus & TKN-B<
			Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ		1-250 :	nLP C	ļ	F1	Flouride, Nitrate Nitrogen, Nitrite Nitrogen & Ortho-Phoshate - B
<u> 19646-23</u>			Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ	22571	14 2-Li	terG C	H2S04	F2	Nonylphenol
r d reci-														
											\perp			
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			-			12/1	5/2023 1	243	JEG		-			
				1		Ten	np: 1.1 /	1.0 C			1			1
Contract Lab mu Use 40 CFR 136 Contract Lab Mu	6 Approved	Methods.	ne MAL. See MAL list attacht	≱d.		The	PLICHT: O-4	70 0	orr Fact: -0.			<i>ا</i> لعقرة	×1:	re for 45
												Ĵ		•
			preservation requirements, ini		Placed in Refrigator							3		•
ate:	Time	Reling	preservation requirements, ini		Placed in Refrigator / Initials	1 1	Time	Rece	eived by	TA		3		
ate:		Reling	preservation requirements, ini		Placed in Refrigator / Initials	12/14/23	Time つ:30 1030	Rece	eived by			3		
ate: 1/13/13 1/4/23 2.14.23	Time 12 20	Reling	preservation requirements, ini uished by: = Scρίη Ωνείπ		Placed in Refrigator / initials A or C	12.14.23 12.14.23 12.14.23	7:30 1030 1710 _		gg Qa] <i>))</i>				
Pate: 1/13/13 1/14/23	Time 12 20	Reling	uished by:		Placed in Refrigator / initials A or C	12.14.23	う:30 1030 1710 のい	Rece	Rut.	Garrett SPL, In				
ate: 1/13/13 1/14/23 2.14.23	Time 12 20 _{[15} 030 716	Reling	uished by:		Placed in Refrigator / initials A or C A or C	12.14.23 12.14.23 12.14.23	7:30 1030 1710 _		Rut.	Sarrett SPL, In		nometer (D		

^{*} Fill out all highlighted sections on Chain of Custody.

^{*} Refrigerator A must have a custody seal.

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.

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11 12

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JOB DESCRIPTION

Central Plant 24HR Comps

PREPARED FOR

Attn: Andy Janek Bio Chem Lab, Inc

West, Texas 76691

Generated 1/16/2024 9:58:39 PM

4751 Tokio Rd

ANALYTICAL REPORT

JOB NUMBER

860-63765-1

Eurofins Houston 4145 Greenbriar Dr Stafford TX 77477

Eurofins Houston

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated 1/16/2024 9:58:39 PM

Authorized for release by Travis Richter, Project Manager Travis.Richter@et.eurofinsus.com (281)794-7216

Client: Bio Chem Lab, Inc Project/Site: Central Plant 24HR Comps Laboratory Job ID: 860-63765-1

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Definitions/Glossary

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Qualifiers

Qualifier

\sim		Semi		
	IVI.	Semi	v	ш

*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	I CS/I CSD RRD exceeds control limits

Qualifier Description

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. J

S1-Surrogate recovery exceeds control limits, low biased. U Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA TICs

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
-----------	-----------------------

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. J

S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Metals

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
Н	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	rt.
--------------	---	-----

¤ Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) **EDL** LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

Method Detection Limit MDL ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Eurofins Houston

Page 4 of 55 1/16/2024

Definitions/Glossary

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins Houston

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Case Narrative

Client: Bio Chem Lab, Inc

Project: Central Plant 24HR Comps

Job ID: 860-63765-1 Eurofins Houston

Job Narrative 860-63765-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to
 demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the
 method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed
 unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/18/2023 1:54 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C

Subcontract Work

Methods Hexachlorophene, Organophosphorus, Pesticides: These methods were subcontracted to Ana-Lab Corporation. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

GC/MS Semi VOA

Method 625.1: During the extraction process, heavy emulsion occurred. Sample was filtered through sodium sulfate to remove emulsion.

Method 625.1: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 860-135771 and analytical batch 860-135925 recovered outside control limits for the following analyte: Benzidine. Benzidine has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for this analyte. These results have been reported and qualified.

Method 625.1: The laboratory control sample duplicate (LCSD) for preparation batch 860-135771 and analytical batch 860-135925 recovered outside control limits for the following analytes: 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 625.1: The following sample was diluted due to the nature of the sample matrix: Central Plant Influent 24HR Comp (860-63765-1). Elevated reporting limits (RLs) are provided.

Method 625.1: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: Central Plant Influent 24HR Comp (860-63765-1) and Central Plant Effluent 24HR Comp (860-63765-2). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs

Method 608.3_PCB: The surrogate recovery for the blank associated with preparation batch 860-135853 and analytical batch 860-135998 was outside the upper control limits. (MB 860-135853/1-A)

Method 608.3_PCB: The surrogate recovery for the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with preparation batch 860-135853 and analytical batch 860-135998 was outside the upper control limits. (LCS 860-135853/4-A) and (LCSD 860-135853/5-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 860-63765-1

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Case Narrative

Client: Bio Chem Lab, Inc.

Job ID: 860-63765-1 Project: Central Plant 24HR Comps

Job ID: 860-63765-1 (Continued)

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Pesticides

Method 608.3 Pest: Surrogate recovery for the following sample was outside control limits: Central Plant Influent 24HR Comp (860-63765-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method 1631E: The following samples were received with labels already on the vials: Central Plant Influent 24HR Comp (860-63765-1), Central Plant Effluent 24HR Comp (860-63765-2), Central Plant Influent LLHq FB (860-63765-3) and Central Plant Effluent LLHg FB (860-63765-4)

Method 1631E: Routine preservation and digestion of samples analyzed by EPA 1631E consists of the addition of 0.4mL bromine monochloride (BrCl) solution. Additional BrCl was required to ensure complete sample oxidation for the following sample: Central Plant Influent 24HR Comp (860-63765-1). An additional method digestion blank, with like amounts of BrCl, was prepared and analyzed with the sample. The mercury concentration in this additional method blank is less than the reporting limit.

Method 1631E: The following sample was diluted due to the nature of the sample matrix: Central Plant Influent 24HR Comp (860-63765-1). Elevated reporting limits (RLs) are provided. The sample appears to be dirty and cloudy.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method 365.1 Ortho: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-136250 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 365.1 Ortho: The following samples were analyzed outside of holding time due to being logged in with insufficient time left to complete analysis prior to expiration: Central Plant Influent 24HR Comp (860-63765-1) and Central Plant Effluent 24HR Comp (860-63765-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Influent 24HR Comp Lab Sample ID: 860-63765-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00000486		0.0000025	0.0000010	mg/L	1	_	1631E	Total/NA
			0	0					
Orthophosphate as P	4.81	H H3	0.200	0.0590	mg/L	10		365.1	Total/NA
Orthophosphorus as PO4	14.7	H H3	0.613	0.181	mg/L	10		365.1	Total/NA

Client Sample ID: Central Plant Effluent 24HR Comp Lab Sample ID: 860-63765-2

Analyte	Result (Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00000117		0.0000005	0.0000002	mg/L	1	_	1631E	Total/NA
			00	00					
Orthophosphate as P	2.54 H	H H3	0.200	0.0590	mg/L	10		365.1	Total/NA
Orthophosphorus as PO4	7.78 H	H H3	0.613	0.181	mg/L	10		365.1	Total/NA

Client Sample ID: Central Plant Influent LLHg FB Lab Sample ID: 860-63765-3

No Detections.

Client Sample ID: Central Plant Effluent LLHg FB Lab Sample ID: 860-63765-4

No Detections.

This Detection Summary does not include radiochemical test results.

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Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Influent 24HR Comp

Lab Sample ID: 860-63765-1 Date Collected: 12/13/23 12:00 **Matrix: Water**

Date Received: 12/18/23 13:54

ZO 0444								
<0.0141	U	0.100	0.0141	mg/L		12/19/23 07:06	12/19/23 18:14	10
< 0.0139	U	0.0570	0.0139	mg/L		12/19/23 07:06	12/19/23 18:14	10
< 0.0150	U	0.0570	0.0150	mg/L		12/19/23 07:06	12/19/23 18:14	10
<0.0480	U *- *1	0.200	0.0480	mg/L		12/19/23 07:06	12/19/23 18:14	10
< 0.00173	U	0.0500	0.00173	mg/L		12/19/23 07:06	12/19/23 18:14	10
< 0.0204	U	0.100	0.0204	mg/L		12/19/23 07:06	12/19/23 18:14	10
< 0.00375	U	0.0500	0.00375	mg/L		12/19/23 07:06	12/19/23 18:14	10
<0.0268	U	0.100	0.0268	mg/L		12/19/23 07:06	12/19/23 18:14	1
< 0.00364	U	0.0500	0.00364	mg/L		12/19/23 07:06	12/19/23 18:14	1
<0.0216	U	0.100	0.0216	mg/L		12/19/23 07:06	12/19/23 18:14	10
< 0.00277	U	0.0500		-		12/19/23 07:06	12/19/23 18:14	10
<0.00256	U	0.0500		•				1
		0.0500						10
				Ū				1
		0.0500		•				1
								<u>.</u> 1
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				-				1
				-				1
				-				1
				-				1
<0.0202	U	0.100						1
<0.0181	U	0.100	0.0181	mg/L		12/19/23 07:06	12/19/23 18:14	1
		0.100		-				1
<0.0179	U	0.100	0.0179	mg/L		12/19/23 07:06	12/19/23 18:14	1
< 0.00234	U	0.100	0.00234	mg/L		12/19/23 07:06	12/19/23 18:14	1
<0.0142	U	0.100	0.0142	mg/L		12/19/23 07:06	12/19/23 18:14	10
<0.00423	U	0.0450	0.00423	mg/L		12/19/23 07:06	12/19/23 18:14	10
	<0.0480 <0.00173 <0.0204 <0.00375 <0.0268 <0.00364 <0.00276 <0.00256 <0.00337 <0.0157 <0.00462 <0.00649 <0.00222 <0.00341 <0.00159 <0.00649 <0.00299 <0.0144 <0.0161 <0.00373 <0.0159 <0.00649 <0.00299 <0.0144 <0.0161 <0.00373 <0.0159 <0.0163 <0.00307 <0.00542 <0.0029 <0.0164 <0.00542 <0.00542 <0.00542 <0.0167 <0.00542 <0.0166 <0.0179 <0.00234 <0.00234 <0.00179 <0.00234 <0.00179 <0.00234 <0.00142 <0.00423	<0.0150 U <0.0480 U*-*1 <0.00173 U <0.0204 U <0.00375 U <0.0268 U <0.00364 U <0.00277 U <0.00256 U <0.00337 U <0.00462 U <0.00462 U <0.00462 U <0.00222 U <0.00246 U <0.00252 U <0.00341 U <0.0059 U <0.00314 U <0.0159 U <0.0049 U <0.00159 U <0.00161 U <0.00159 U <0.00161 U <0.00161 U <0.00131 U <0.0159 U <0.0161 U <0.00161 U <0.00373 U <0.0164 U <0.00373 U <0.0165 U <0.00161 U <0.00161 U <0.00161 U <0.00161 U <0.00169 U <0.00169 U <0.0169 U <0.00169 U <0.00238 U <0.00458 U*+ <0.00526 U <0.0029 U <0.0164 U <0.00234 U <0.00542 U <0.0167 U <0.00491 U <0.00542 U <0.0167 U <0.00491 U <0.00542 U <0.0167 U <0.00491 U <0.00202 U <0.0161 U <0.00491 U <0.00203 U <0.0161 U <0.00491 U <0.00491 U <0.00491 U <0.00202 U <0.0161 U <0.00491 U	<0.0480	<0.0480	<0.0480	<0.0480	<0.0480	

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Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Influent 24HR Comp

Lab Sample ID: 860-63765-1 Date Collected: 12/13/23 12:00 **Matrix: Water**

Date Received: 12/18/23 13:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	<0.0264	U	0.100	0.0264	mg/L		12/19/23 07:06	12/19/23 18:14	10
1,2,4-Trichlorobenzene	<0.0161	U	0.0500	0.0161	mg/L		12/19/23 07:06	12/19/23 18:14	10
2,4,5-Trichlorophenol	<0.0200	U	0.100	0.0200	mg/L		12/19/23 07:06	12/19/23 18:14	10
2,4,6-Trichlorophenol	<0.0142	U	0.0500	0.0142	mg/L		12/19/23 07:06	12/19/23 18:14	10
Bis(2-chloroethoxy)methane	< 0.0176	U	0.100	0.0176	mg/L		12/19/23 07:06	12/19/23 18:14	10
4-Chlorophenyl phenyl ether	<0.0128	U	0.100	0.0128	mg/L		12/19/23 07:06	12/19/23 18:14	10
1,2-Diphenylhydrazine	< 0.0149	U	0.100	0.0149	mg/L		12/19/23 07:06	12/19/23 18:14	10
2-Methylphenol	<0.0162	U	0.100	0.0162	mg/L		12/19/23 07:06	12/19/23 18:14	10
N-Nitrosodi-n-butylamine	< 0.0149	U	0.100	0.0149	mg/L		12/19/23 07:06	12/19/23 18:14	10
N-Nitrosodiethylamine	< 0.0175	U	0.100	0.0175	mg/L		12/19/23 07:06	12/19/23 18:14	10
Pentachlorobenzene	< 0.0107	U	0.100	0.0107	mg/L		12/19/23 07:06	12/19/23 18:14	10
1,2,4,5-Tetrachlorobenzene	<0.0132	U	0.100	0.0132	mg/L		12/19/23 07:06	12/19/23 18:14	10
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD TIC	<0.100	U	mg/L			1746-01-6	12/19/23 07:06	12/19/23 18:14	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	69		31 - 132				12/19/23 07:06	12/19/23 18:14	10
2-Fluorophenol (Surr)	22	S1-	28 - 114				12/19/23 07:06	12/19/23 18:14	10
p-Terphenyl-d14 (Surr)	75		20 - 141				12/19/23 07:06	12/19/23 18:14	10
Phenol-d5 (Surr)	16		8 - 424				12/19/23 07:06	12/19/23 18:14	10
Nitrobenzene-d5 (Surr)	51		15 - 314				12/19/23 07:06	12/19/23 18:14	10
2-Fluorobiphenyl (Surr)	60		29 - 112				12/19/23 07:06	12/19/23 18:14	10

2-Fluorobiphenyl (Surr)	60		29 - 112				12/19/23 07:06	12/19/23 18:14	10
Method: EPA 608.3 - Org	anochlorine Pes	ticides in	Water						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0000081	U	0.0000100	0.0000008	mg/L		12/19/23 11:31	12/21/23 12:20	1
	4			14					
4,4'-DDE	<0.00000109	U	0.0000100	0.0000010 9	mg/L		12/19/23 11:31	12/21/23 12:20	1
4,4'-DDT	<0.00000379	U	0.0000200	0.0000037 9	mg/L		12/19/23 11:31	12/21/23 12:20	1
Aldrin	<0.0000113	U	0.0000100	0.00000113	mg/L		12/19/23 11:31	12/21/23 12:20	1
alpha-BHC	<0.0000142	U	0.0000090	0.0000014	mg/L		12/19/23 11:31	12/21/23 12:20	1
beta-BHC	<0.00000389	U	0.0000180	0.0000038	mg/L		12/19/23 11:31	12/21/23 12:20	1
Chlordane	<0.000103	U	0.000250	0.000103	mg/L		12/19/23 11:31	12/21/23 12:20	1
delta-BHC	<0.00000245	U	0.000250	0.0000024 5	mg/L		12/19/23 11:31	12/21/23 12:20	1
Dicofol	<0.0000500	U	0.000100	0.0000500	mg/L		12/19/23 11:31	12/21/23 12:20	1
Dieldrin	<0.00000095	U	0.0000100	0.0000009 53	mg/L		12/19/23 11:31	12/21/23 12:20	1
Endosulfan I	<0.0000107	U	0.0000100	0.0000010 7	mg/L		12/19/23 11:31	12/21/23 12:20	1
Endosulfan II	<0.00000122	U	0.0000100	0.0000012 2	mg/L		12/19/23 11:31	12/21/23 12:20	1
Endosulfan sulfate	<0.00000112	U	0.0000100	0.00000112	mg/L		12/19/23 11:31	12/21/23 12:20	1
Endrin	<0.00000156	U	0.0000100	0.0000015 6	mg/L		12/19/23 11:31	12/21/23 12:20	1
Endrin aldehyde	<0.00000118	U	0.0000100	0.00000118	mg/L		12/19/23 11:31	12/21/23 12:20	1
gamma-BHC (Lindane)	<0.00000299	U	0.0000100	0.0000029 9	mg/L		12/19/23 11:31	12/21/23 12:20	1

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Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Influent 24HR Comp Lab Sample ID: 860-63765-1

Date Collected: 12/13/23 12:00 East Campie 15: 000-007/00-1

Date Received: 12/18/23 13:54

<0.00000446 <0.00000134 <0.00000390 <0.0000769 <0.0000200 %Recovery 557	U U U U	0.000090 0.0000100 0.0000200 0.000200 0.000200	0.0000044 6 0.0000013 4 0.0000039	mg/L		12/19/23 11:31 12/19/23 11:31	12/21/23 12:20 12/21/23 12:20	
<0.0000390 <0.0000769 <0.0000200 %Recovery 557	U U U	0.0000100 0.0000200 0.000200	0.0000013 4 0.0000039			12/19/23 11:31	12/21/23 12:20	
<0.0000769 <0.0000200 %Recovery 557	U U	0.000200		mg/L				
<0.0000200 **Recovery 557	U		U			12/19/23 11:31	12/21/23 12:20	
%Recovery		0.0000200	0.0000769	mg/L		12/19/23 11:31	12/21/23 12:20	
557		0.0000200	0.0000200	U		12/19/23 11:31	12/21/23 12:20	
557	Ouglifier	Limits		-		Prepared	Analyzed	Dil Fa
		18 - 126				12/19/23 11:31	12/21/23 12:20	DILF
74	01.	15 - 136					12/21/23 12:20	
rinated Bipl	nenvis (PC	Bs) (GC)						
-		RL	MDL	Unit	D	Prepared	Analyzed	Dil F
<0.0000125	U	0.000100	0.0000125	mg/L		12/19/23 11:31	12/20/23 15:07	
< 0.0000125	U	0.000100	0.0000125	mg/L		12/19/23 11:31	12/20/23 15:07	
<0.0000780	U	0.000100		mg/L		12/19/23 11:31	12/20/23 15:07	
<0.0000125		0.000100		ma/l		12/10/22 11:21	12/20/23 15:07	
				-				
				Ū				
<0.00000780	U	0.000100		mg/L		12/19/23 11:31	12/20/23 15:07	
<0.000100	U	0.000100		mg/L		12/19/23 11:31	12/20/23 15:07	
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
37		18 - 126				12/19/23 11:31	12/20/23 15:07	
85		15 - 136				12/19/23 11:31	12/20/23 15:07	
des (GC)								
		RL		Unit	D	Prepared	Analyzed	Dil F
<0.0000538	U	0.000200	0.0000538	mg/L		12/20/23 15:10	12/22/23 11:20	
<0.0000421	U	0.000200	0.0000421	mg/L		12/20/23 15:10	12/22/23 11:20	
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
118		45 - 150				12/20/23 15:10	12/22/23 11:20	
nate and Ure	ea Pesticio	les (HPLC)						
		RL			D	Prepared	Analyzed	Dil F
<1.85	U	5.00	1.85	ug/L		12/18/23 14:57	12/22/23 20:13	
<0.0514	U	0.0900	0.0514	ug/L		12/18/23 14:57	12/22/23 20:13	
, Low Level	(CVAFS)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
0.00000486		0.0000025	0.0000010	mg/L		12/29/23 15:10	12/30/23 12:40	
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil F
					=			
				-				
	Result	Result Qualifier	Co.0000125 U	Result Qualifier RL MDL	Result Qualifier RL MDL Unit mg/L	Result Qualifier RL MDL Unit D	Result Qualifier RL MDL Unit D Prepared 12/19/23 11:31 1	Result Qualifier RL MDL Unit D Prepared Analyzed

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Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Effluent 24HR Comp

Lab Sample ID: 860-63765-2 Date Collected: 12/13/23 23:59 **Matrix: Water**

Date Received: 12/18/23 13:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthylene	<0.00141	U	0.0100	0.00141	mg/L		12/19/23 07:06	12/19/23 18:38	
Acenaphthene	< 0.00139	U	0.00570	0.00139	-		12/19/23 07:06	12/19/23 18:38	
Anthracene	< 0.00150	U	0.00570	0.00150	mg/L		12/19/23 07:06	12/19/23 18:38	
Benzidine	<0.00480	U *- *1	0.0200	0.00480	mg/L		12/19/23 07:06	12/19/23 18:38	
Benzo[a]anthracene	< 0.000173	U	0.00500	0.000173	-		12/19/23 07:06	12/19/23 18:38	
3,4-Benzofluoranthene	< 0.00204	U	0.0100	0.00204	_		12/19/23 07:06	12/19/23 18:38	
Benzo[k]fluoranthene	<0.000375	U	0.00500	0.000375	mg/L		12/19/23 07:06	12/19/23 18:38	
Benzo[g,h,i]perylene	<0.00268	U	0.0100	0.00268	-		12/19/23 07:06	12/19/23 18:38	
Benzo[a]pyrene	< 0.000364	U	0.00500	0.000364	_		12/19/23 07:06	12/19/23 18:38	
Bis(2-chloroethyl)ether	<0.00216	U	0.0100	0.00216	mg/L		12/19/23 07:06	12/19/23 18:38	
Bis(2-ethylhexyl) phthalate	<0.000277	U	0.00500	0.000277	-		12/19/23 07:06	12/19/23 18:38	
4-Bromophenyl phenyl ether	<0.000256	U	0.00500	0.000256	-		12/19/23 07:06	12/19/23 18:38	
Butyl benzyl phthalate	<0.000337	U	0.00500	0.000337			12/19/23 07:06	12/19/23 18:38	
4-Chloro-3-methylphenol	< 0.00157	U	0.00500	0.00157	_		12/19/23 07:06	12/19/23 18:38	
2-Chloronaphthalene	<0.000462		0.00500	0.000462	-		12/19/23 07:06	12/19/23 18:38	
2-Chlorophenol	<0.000649		0.00500	0.000649				12/19/23 18:38	
Chrysene	<0.000222		0.00500	0.000222	-			12/19/23 18:38	
Dibenz(a,h)anthracene	<0.000246		0.00500	0.000246	-			12/19/23 18:38	
Di-n-butyl phthalate	<0.000252		0.00500	0.000252	5			12/19/23 18:38	
3,3'-Dichlorobenzidine	<0.000341		0.00500	0.000341	mg/L			12/19/23 18:38	
2,4-Dichlorophenol	< 0.000314		0.00500	0.000314	_			12/19/23 18:38	
Diethyl phthalate	<0.00159		0.00500	0.00159				12/19/23 18:38	
2,4-Dimethylphenol	< 0.000649		0.00500	0.000649	_			12/19/23 18:38	
Dimethyl phthalate	<0.000299		0.00250	0.000299	J			12/19/23 18:38	
4,6-Dinitro-2-methylphenol	<0.00144		0.0100	0.00144				12/19/23 18:38	
2,4-Dinitrophenol	<0.00161		0.0100	0.00161	-			12/19/23 18:38	
2,4-Dinitrotoluene	<0.00131		0.0100	0.00131	_			12/19/23 18:38	
2,6-Dinitrotoluene	<0.00161		0.00500	0.00161	7			12/19/23 18:38	
Di-n-octyl phthalate	<0.000373		0.00500	0.000373	-			12/19/23 18:38	
Fluoranthene	< 0.00159		0.00500	0.00159	-			12/19/23 18:38	
Fluorene	<0.00163		0.00500	0.00163				12/19/23 18:38	
Hexachlorobenzene	<0.000307		0.00500	0.000307	-			12/19/23 18:38	
Hexachlorobutadiene	<0.000238		0.00100	0.000238	_			12/19/23 18:38	
Hexachlorocyclopentadiene	<0.00458		0.0100	0.00458				12/19/23 18:38	
Hexachloroethane	<0.000526		0.00480	0.000526	-			12/19/23 18:38	
Indeno[1,2,3-cd]pyrene	<0.00229		0.0100	0.00229	-			12/19/23 18:38	
Isophorone	< 0.00164		0.00500	0.00164				12/19/23 18:38	
Naphthalene	<0.000542		0.00250	0.000542	_			12/19/23 18:38	
Nitrobenzene	< 0.00166		0.00500	0.00166	Ū			12/19/23 18:38	
2-Nitrophenol	< 0.00167		0.0100	0.00167				12/19/23 18:38	
4-Nitrophenol	<0.00491		0.00720	0.00491	-			12/19/23 18:38	
N-Nitrosodimethylamine	<0.00431		0.0100	0.00431	_			12/19/23 18:38	
N-Nitrosodiphenylamine	<0.00202		0.0100	0.00202				12/19/23 18:38	
N-Nitrosodi-n-propylamine	<0.00181		0.0100	0.00181	-			12/19/23 18:38	
• • •			0.0100		-			12/19/23 16:36	
bis(chloroisopropyl) ether	<0.00179 <0.000234			0.00179					
Pentachlorophenol			0.0100	0.000234	-			12/19/23 18:38	
Phenanthrene	<0.00142		0.0100	0.00142	-			12/19/23 18:38	
Phenol	< 0.000423	U	0.00450	0.000423	mg/L		12/19/23 07:06	12/19/23 18:38	•

Eurofins Houston

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Effluent 24HR Comp

Date Collected: 12/13/23 23:59

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Date Received: 12/18/23 13:54

2-Fluorobiphenyl (Surr)

Lab Sample ID: 860-63765-2

12/19/23 07:06 12/19/23 18:38

Matrix: Water

Job ID: 860-63765-1

Method: EPA 625.1 - Semivo	atile Organio	Compou	ınds (GC/M	S)	(Contin	ued)				
Analyte	Result	Qualifier	RL		MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	<0.00264	U	0.0100		0.00264	mg/L		12/19/23 07:06	12/19/23 18:38	1
1,2,4-Trichlorobenzene	< 0.00161	U	0.00500		0.00161	mg/L		12/19/23 07:06	12/19/23 18:38	1
2,4,5-Trichlorophenol	<0.00200	U	0.0100		0.00200	mg/L		12/19/23 07:06	12/19/23 18:38	1
2,4,6-Trichlorophenol	< 0.00142	U	0.00500		0.00142	mg/L		12/19/23 07:06	12/19/23 18:38	1
Bis(2-chloroethoxy)methane	< 0.00176	U	0.0100		0.00176	mg/L		12/19/23 07:06	12/19/23 18:38	1
4-Chlorophenyl phenyl ether	<0.00128	U	0.0100		0.00128	mg/L		12/19/23 07:06	12/19/23 18:38	1
1,2-Diphenylhydrazine	< 0.00149	U	0.0100		0.00149	mg/L		12/19/23 07:06	12/19/23 18:38	1
2-Methylphenol	< 0.00162	U	0.0100		0.00162	mg/L		12/19/23 07:06	12/19/23 18:38	1
N-Nitrosodi-n-butylamine	< 0.00149	U	0.0100		0.00149	mg/L		12/19/23 07:06	12/19/23 18:38	1
N-Nitrosodiethylamine	< 0.00175	U	0.0100		0.00175	mg/L		12/19/23 07:06	12/19/23 18:38	1
Pentachlorobenzene	< 0.00107	U	0.0100		0.00107	mg/L		12/19/23 07:06	12/19/23 18:38	1
1,2,4,5-Tetrachlorobenzene	<0.00132	U	0.0100		0.00132	mg/L		12/19/23 07:06	12/19/23 18:38	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D		RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD TIC	<0.0100	U	mg/L	_			1746-01-6	12/19/23 07:06	12/19/23 18:38	1
Surrogate	%Recovery	Qualifier	Limits					Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	87		31 - 132					12/19/23 07:06	12/19/23 18:38	1
2-Fluorophenol (Surr)	26	S1-	28 - 114					12/19/23 07:06	12/19/23 18:38	1
p-Terphenyl-d14 (Surr)	111		20 - 141					12/19/23 07:06	12/19/23 18:38	1
Phenol-d5 (Surr)	15		8 - 424					12/19/23 07:06	12/19/23 18:38	1
Nitrobenzene-d5 (Surr)	74		15 - 314					12/19/23 07:06	12/19/23 18:38	1

29 - 112

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0000081	U	0.0000100	0.000008	mg/L		12/19/23 11:31	12/21/23 12:48	1
	4			14					
4,4'-DDE	<0.0000109	U	0.0000100	0.0000010	mg/L		12/19/23 11:31	12/21/23 12:48	1
4,4'-DDT	<0.00000379	U	0.0000200	0.0000037 9	mg/L		12/19/23 11:31	12/21/23 12:48	1
Aldrin	<0.00000113	U	0.0000100	0.00000113	mg/L		12/19/23 11:31	12/21/23 12:48	1
alpha-BHC	<0.00000142	U	0.0000090 0	0.0000014 2	mg/L		12/19/23 11:31	12/21/23 12:48	1
beta-BHC	<0.00000389	U	0.0000180	0.0000038 9	mg/L		12/19/23 11:31	12/21/23 12:48	1
Chlordane	<0.000103	U	0.000250	0.000103	mg/L		12/19/23 11:31	12/21/23 12:48	1
delta-BHC	<0.00000245	U	0.000250	0.0000024 5	mg/L		12/19/23 11:31	12/21/23 12:48	1
Dicofol	<0.0000500	U	0.000100	0.0000500	mg/L		12/19/23 11:31	12/21/23 12:48	1
Dieldrin	<0.00000095	U	0.0000100	0.0000009 53	mg/L		12/19/23 11:31	12/21/23 12:48	1
Endosulfan I	<0.00000107	U	0.0000100	0.0000010 7	mg/L		12/19/23 11:31	12/21/23 12:48	1
Endosulfan II	<0.00000122	U	0.0000100	0.0000012 2	mg/L		12/19/23 11:31	12/21/23 12:48	1
Endosulfan sulfate	<0.00000112	U	0.0000100	0.00000112	mg/L		12/19/23 11:31	12/21/23 12:48	1
Endrin	<0.00000156	U	0.0000100	0.0000015 6	mg/L		12/19/23 11:31	12/21/23 12:48	1
Endrin aldehyde	<0.00000118	U	0.0000100	0.00000118	mg/L		12/19/23 11:31	12/21/23 12:48	1
gamma-BHC (Lindane)	<0.00000299	U	0.0000100	0.0000029	mg/L		12/19/23 11:31	12/21/23 12:48	1

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Effluent 24HR Comp

Lab Sample ID: 860-63765-2 Date Collected: 12/13/23 23:59 **Matrix: Water**

Date Received: 12/18/23 13:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Heptachlor	<0.0000446	U	0.0000090	0.0000044	mg/L		12/19/23 11:31	12/21/23 12:48	
·			0	6	J				
Heptachlor epoxide	<0.00000134	U	0.0000100	0.0000013	mg/L		12/19/23 11:31	12/21/23 12:48	
				4					
Methoxychlor	<0.00000390	U	0.0000200	0.0000039	mg/L		12/19/23 11:31	12/21/23 12:48	
Toyonhono	<0.0000760	11	0.000200	0 0.0000769	ma/l		10/10/02 11:21	10/01/02 10:40	
Toxaphene	<0.0000769		0.000200		•			12/21/23 12:48	
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		12/19/23 11:31	12/21/23 12:48	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2,4,5,6-Tetrachloro-m-xylene (Surr)	52		18 - 126				12/19/23 11:31	12/21/23 12:48	
DCB Decachlorobiphenyl (Surr)	88		15 - 136				12/19/23 11:31	12/21/23 12:48	
Method: EPA 608.3 - Polychlo	•	•							
Analyte		Qualifier	RL		Unit	<u>D</u>	Prepared	Analyzed	Dil F
PCB-1016	<0.0000125		0.000100	0.0000125	-		12/19/23 11:31	12/20/23 15:19	
PCB-1242	<0.0000125	U	0.000100	0.0000125	•		12/19/23 11:31	12/20/23 15:19	
PCB-1254	<0.00000780	U	0.000100	0.0000078	mg/L		12/19/23 11:31	12/20/23 15:19	
PCB-1221	<0.0000125		0.000100	0.0000125	ma/l		10/10/02 11:21	12/20/23 15:19	
PCB-1221 PCB-1232	<0.0000125		0.000100	0.0000125	Ū				
PCB-1232 PCB-1248	<0.0000125		0.000100	0.0000125	•			12/20/23 15:19 12/20/23 15:19	
PCB-1260	<0.00000780	U	0.000100	0.0000078	mg/L		12/19/23 11:31	12/20/23 15:19	
Polychlorinated biphenyls, Total	<0.000100	U	0.000100	0.000100	mg/L		12/19/23 11:31	12/20/23 15:19	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2,4,5,6-Tetrachloro-m-xylene (Surr)	57	Qualifier	18 - 126				12/19/23 11:31	12/20/23 15:19	-111
DCB Decachlorobiphenyl (Surr)	95		15 - 136					12/20/23 15:19	
202 200domorosiphenyi (Odm)	30		70 - 700				12/10/20 11:01	12/20/20 10:13	
Method: EPA-01 615 - Herbic	ides (GC)								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
2,4-D	<0.0000546	U	0.000202	0.0000546	mg/L		12/20/23 15:10	12/22/23 11:46	
Silvex (2,4,5-TP)	< 0.0000427	U	0.000202	0.0000427	mg/L		12/20/23 15:10	12/22/23 11:46	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2,4-Dichlorophenylacetic acid	112		45 - 150				12/20/23 15:10	12/22/23 11:46	
Method: EPA-01 632 - Carbai	mata and Use	a Deetiele	des (UDL C)						
		Qualifier		MDI	Unit	D	Droparod	Analyzod	Dil F
Analyte Carbaryl	- Result <1.85		RL 5.00				Prepared 12/19/22 14:57	Analyzed	חוו ר
					ug/L			12/22/23 20:46	
Diuron	<0.0514	U	0.0900	0.0514	ug/L		12/10/23 14.5/	12/22/23 20:46	
Method: EPA 1631E - Mercur	v. Low Level	(CVAFS)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Mercury	0.00000117		0.0000005	0.0000002				12/30/23 13:03	
•	2.30000		00	00	J.				
A CONTRACT AND A CONT					11'4	_	Due	A L !	P.: -
General Chemistry						D	Prepared	Analyzod	Dil F
Analyte		Qualifier	RL	MDL			riepaieu	Analyzed	
	2.54	Qualifier H H3 H H3	0.200 0.613	0.0590			Fiepaieu	12/20/23 17:17 12/20/23 17:17	

Eurofins Houston

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Influent LLHg FB

Lab Sample ID: 860-63765-3

Matrix: Water

Date Collected: 12/13/23 12:00 Date Received: 12/18/23 13:54

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier **MDL** Unit D Prepared Analyzed RL Dil Fac Mercury <0.00000020 U 0.0000005 0.0000002 mg/L 12/29/23 15:10 12/30/23 13:10 00

Client Sample ID: Central Plant Effluent LLHg FB Lab Sample ID: 860-63765-4

Date Collected: 12/13/23 23:59 **Matrix: Water**

Date Received: 12/18/23 13:54

Method: EPA 1631E - Mercury, Low Level (CVAFS)

0

Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac Mercury <0.00000020 U 0.0000005 12/29/23 15:10 12/30/23 13:33 0.0000002 mg/L 00

00

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Surrogate Summary

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

			Pe	Percent Surrogate Recovery (Acceptance Limits)					
		TBP	2FP	TPHd14	PHL	NBZ	FBP		
Lab Sample ID	Client Sample ID	(31-132)	(28-114)	(20-141)	(8-424)	(15-314)	(29-112)		
0-63765-1	Central Plant Influent 24HR Con	69	22 S1-	75	16	51	60		
60-63765-2	Central Plant Effluent 24HR Comp	87	26 S1-	111	15	74	71		
860-135771/2-A	Lab Control Sample	99	39	96	28	77	73		
D 860-135771/3-A	Lab Control Sample Dup	110	47	103	34	86	81		
860-135771/1-A	Method Blank	76	36	90	24	76	70		

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water Prep Type: Total/NA

			Perce	ent Surrogate Recovery (Acceptance Limits)
		TCX1	DCB1	
Lab Sample ID	Client Sample ID	(18-126)	(15-136)	
860-63765-1	Central Plant Influent 24HR Con	557 S1+	74	
860-63765-2	Central Plant Effluent 24HR Comp	52	88	
LCS 860-135853/2-A	Lab Control Sample	84	120	
LCSD 860-135853/3-A	Lab Control Sample Dup	78	111	
MB 860-135853/1-A	Method Blank	69	113	

TCX = 2,4,5,6-Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TCX1	DCB1				
Lab Sample ID	Client Sample ID	(18-126)	(15-136)				
860-63765-1	Central Plant Influent 24HR Con	37	85				
860-63765-2	Central Plant Effluent 24HR Comp	57	95				
LCS 860-135853/4-A	Lab Control Sample	107	160 S1+				
LCSD 860-135853/5-A	Lab Control Sample Dup	101	156 S1+				
MB 860-135853/1-A	Method Blank	81	145 S1+				

TCX = 2,4,5,6-Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

Job ID: 860-63765-1

Surrogate Summary

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps Method: 615 - Herbicides (GC)

Prep Type: Total/NA **Matrix: Water**

			Percent Surrogate Recovery (Acceptance Limits)
		DCPAA1	
Lab Sample ID	Client Sample ID	(45-150)	
860-63765-1	Central Plant Influent 24HR Con	118	
860-63765-2	Central Plant Effluent 24HR Comp	112	
LCS 860-136097/2-A	Lab Control Sample	134	
LCSD 860-136097/3-A	Lab Control Sample Dup	140	
MB 860-136097/1-A	Method Blank	125	
Surrogate Legend			

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

RL

0.0100

MDL Unit

0.00141 mg/L

Project/Site: Central Plant 24HR Comps

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

MB MB

<0.00141 U

<0.00161 U

<0.00131 U

<0.00161 U

<0.000373 U

<0.00159 U

<0.00163 U

<0.000307 U

<0.000238 U

<0.00458 U

<0.000526 U

<0.00229 U

<0.00164 U

<0.000542 U

<0.00166 U

<0.00167 U

<0.00491 U

<0.00202 U

<0.00181 U

<0.00288 U

<0.00179 U

<0.000234 U

<0.00142 U

<0.000423 U

Result Qualifier

Lab Sample ID: MB 860-135771/1-A

Matrix: Water

Acenaphthylene

2.4-Dinitrophenol

2,4-Dinitrotoluene

2,6-Dinitrotoluene

Fluoranthene

Fluorene

Di-n-octyl phthalate

Hexachlorobenzene

Hexachlorobutadiene

Indeno[1,2,3-cd]pyrene

N-Nitrosodimethylamine

N-Nitrosodiphenylamine

N-Nitrosodi-n-propylamine

bis(chloroisopropyl) ether

Pentachlorophenol

Phenanthrene

Phenol

Hexachloroethane

Isophorone

Naphthalene

Nitrobenzene

2-Nitrophenol

4-Nitrophenol

Hexachlorocyclopentadiene

Analyte

Analysis Batch: 135925

Client Sample ID:	Method Blank
Prep ⁻	Type: Total/NA
	B 4 1 404

12/19/23 07:06 12/19/23 20:18

12/19/23 07:06 12/19/23 20:18

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12/19/23 07:06 12/19/23 20:18

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12/19/23 07:06 12/19/23 20:18

12/19/23 20:18

12/19/23 07:06

Analyzed

Prepared

D

Prep Batch: 135771

Dil Fac

Acenaphthene	<0.00139 U	0.00570	0.00139 mg/L	12/19/23 07:06 12/19/23 20:18	1
Anthracene	<0.00150 U	0.00570	0.00150 mg/L	12/19/23 07:06 12/19/23 20:18	1
Benzidine	<0.00480 U	0.0200	0.00480 mg/L	12/19/23 07:06 12/19/23 20:18	1
Benzo[a]anthracene	<0.000173 U	0.00500	0.000173 mg/L	12/19/23 07:06 12/19/23 20:18	1
3,4-Benzofluoranthene	<0.00204 U	0.0100	0.00204 mg/L	12/19/23 07:06 12/19/23 20:18	1
Benzo[k]fluoranthene	<0.000375 U	0.00500	0.000375 mg/L	12/19/23 07:06 12/19/23 20:18	1
Benzo[g,h,i]perylene	<0.00268 U	0.0100	0.00268 mg/L	12/19/23 07:06 12/19/23 20:18	1
Benzo[a]pyrene	<0.000364 U	0.00500	0.000364 mg/L	12/19/23 07:06 12/19/23 20:18	1
Bis(2-chloroethyl)ether	<0.00216 U	0.0100	0.00216 mg/L	12/19/23 07:06 12/19/23 20:18	1
Bis(2-ethylhexyl) phthalate	<0.000277 U	0.00500	0.000277 mg/L	12/19/23 07:06 12/19/23 20:18	1
4-Bromophenyl phenyl ether	<0.000256 U	0.00500	0.000256 mg/L	12/19/23 07:06 12/19/23 20:18	1
Butyl benzyl phthalate	<0.000337 U	0.00500	0.000337 mg/L	12/19/23 07:06 12/19/23 20:18	1
4-Chloro-3-methylphenol	<0.00157 U	0.00500	0.00157 mg/L	12/19/23 07:06 12/19/23 20:18	1
2-Chloronaphthalene	<0.000462 U	0.00500	0.000462 mg/L	12/19/23 07:06 12/19/23 20:18	1
2-Chlorophenol	<0.000649 U	0.00500	0.000649 mg/L	12/19/23 07:06 12/19/23 20:18	1
Chrysene	0.0004958 J	0.00500	0.000222 mg/L	12/19/23 07:06 12/19/23 20:18	1
Dibenz(a,h)anthracene	<0.000246 U	0.00500	0.000246 mg/L	12/19/23 07:06 12/19/23 20:18	1
Di-n-butyl phthalate	<0.000252 U	0.00500	0.000252 mg/L	12/19/23 07:06 12/19/23 20:18	1
3,3'-Dichlorobenzidine	<0.000341 U	0.00500	0.000341 mg/L	12/19/23 07:06 12/19/23 20:18	1
2,4-Dichlorophenol	<0.000314 U	0.00500	0.000314 mg/L	12/19/23 07:06 12/19/23 20:18	1
Diethyl phthalate	<0.00159 U	0.00500	0.00159 mg/L	12/19/23 07:06 12/19/23 20:18	1
2,4-Dimethylphenol	<0.000649 U	0.00500	0.000649 mg/L	12/19/23 07:06 12/19/23 20:18	1
Dimethyl phthalate	<0.000299 U	0.00250	0.000299 mg/L	12/19/23 07:06 12/19/23 20:18	1
4,6-Dinitro-2-methylphenol	<0.00144 U	0.0100	0.00144 mg/L	12/19/23 07:06 12/19/23 20:18	1

0.0100

0.0100

0.00500

0.00500

0.00500

0.00500

0.00500

0.00100

0.0100

0.0100

0.00500

0.00250

0.00500

0.0100

0.0100

0.0100

0.0100

0.0100

0.0100

0.0100

0.00450

0.00720

0.00480

0.00161 mg/L

0.00131 mg/L

0.00161 mg/L

0.000373 mg/L

0.00159 mg/L

0.00163 mg/L

0.000307 mg/L

0.000238 mg/L

0.000526 mg/L

0.00229 mg/L

0.00164 mg/L

0.000542 mg/L

0.00166 mg/L

0.00167 mg/L

0.00491 mg/L

0.00202 mg/L

0.00288 mg/L

0.00179 mg/L

0.000234 mg/L

0.00142 mg/L

0.000423 mg/L

mg/L

0.00181

mg/L

0.00458

12/19/23 07:06 12/19/23 20:18 12/19/23 07:06 12/19/23 20:18

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Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Job ID: 860-63765-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 860-135771/1-A

Matrix: Water

Analysis Batch: 135925

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 135771

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	<0.000178	U	0.00500	0.000178	mg/L		12/19/23 07:06	12/19/23 20:18	1
Pyridine	<0.00264	U	0.0100	0.00264	mg/L		12/19/23 07:06	12/19/23 20:18	1
1,2,4-Trichlorobenzene	< 0.00161	U	0.00500	0.00161	mg/L		12/19/23 07:06	12/19/23 20:18	1
2,4,5-Trichlorophenol	<0.00200	U	0.0100	0.00200	mg/L		12/19/23 07:06	12/19/23 20:18	1
2,4,6-Trichlorophenol	< 0.00142	U	0.00500	0.00142	mg/L		12/19/23 07:06	12/19/23 20:18	1
Bis(2-chloroethoxy)methane	< 0.00176	U	0.0100	0.00176	mg/L		12/19/23 07:06	12/19/23 20:18	1
4-Chlorophenyl phenyl ether	<0.00128	U	0.0100	0.00128	mg/L		12/19/23 07:06	12/19/23 20:18	1
1,2-Diphenylhydrazine	< 0.00149	U	0.0100	0.00149	mg/L		12/19/23 07:06	12/19/23 20:18	1
2-Methylphenol	< 0.00162	U	0.0100	0.00162	mg/L		12/19/23 07:06	12/19/23 20:18	1
N-Nitrosodi-n-butylamine	<0.00149	U	0.0100	0.00149	mg/L		12/19/23 07:06	12/19/23 20:18	1
N-Nitrosodiethylamine	< 0.00175	U	0.0100	0.00175	mg/L		12/19/23 07:06	12/19/23 20:18	1
Pentachlorobenzene	< 0.00107	U	0.0100	0.00107	mg/L		12/19/23 07:06	12/19/23 20:18	1
1,2,4,5-Tetrachlorobenzene	<0.00132	U	0.0100	0.00132	mg/L		12/19/23 07:06	12/19/23 20:18	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76	31 - 132	12/19/23 07:06	12/19/23 20:18	1
2-Fluorophenol (Surr)	36	28 - 114	12/19/23 07:06	12/19/23 20:18	1
p-Terphenyl-d14 (Surr)	90	20 - 141	12/19/23 07:06	12/19/23 20:18	1
Phenol-d5 (Surr)	24	8 - 424	12/19/23 07:06	12/19/23 20:18	1
Nitrobenzene-d5 (Surr)	76	15 - 314	12/19/23 07:06	12/19/23 20:18	1
2-Fluorobiphenyl (Surr)	70	29 - 112	12/19/23 07:06	12/19/23 20:18	1

Lab Sample ID: LCS 860-135771/2-A

Matrix: Water

Analysis Batch: 135925

Client Sample ID: Lab Control Sample

Prep Type: Total/NA **Prep Batch: 135771**

LCS LCS Spike %Rec Added **Analyte** Result Qualifier Unit %Rec Limits Acenaphthylene 0.0400 0.02898 72 54 - 126 mg/L 60 - 132 0.0400 0.02885 Acenaphthene mg/L 72 Anthracene 0.0400 0.03615 mg/L 90 43 - 120 Benzidine 0.0400 0.005330 J *-13 25 - 125 mg/L Benzo[a]anthracene 0.0400 0.03708 93 42 - 133 mg/L 96 42 - 140 3,4-Benzofluoranthene 0.0400 0.03846 mg/L Benzo[k]fluoranthene 0.0400 0.04065 mg/L 102 25 - 146 0.0400 0.04150 104 13 - 195 Benzo[g,h,i]perylene mg/L 0.0400 Benzo[a]pyrene 0.04016 mg/L 100 32 - 148 Bis(2-chloroethyl)ether 0.0400 0.02696 mg/L 67 43 - 126 0.0400 100 Bis(2-ethylhexyl) phthalate 0.03998 mg/L 29 - 137 4-Bromophenyl phenyl ether 0.0400 0.03192 mg/L 80 65 - 120 Butyl benzyl phthalate 0.0400 0.03902 mg/L 98 12 - 140 4-Chloro-3-methylphenol 0.0400 0.03019 mg/L 75 41 - 128 65 - 120 66 2-Chloronaphthalene 0.0400 0.02648 mg/L 2-Chlorophenol 0.0400 0.02455 61 36 - 120 mg/L Chrysene 0.0400 0.03608 mg/L 90 44 - 140 Dibenz(a,h)anthracene 0.0400 0.04182 mg/L 105 16 - 200 0.0400 104 Di-n-butyl phthalate 0.04152 mg/L 8 - 120 3,3'-Dichlorobenzidine 0.0400 0.03823 mg/L 96 18 - 213 0.0400 0.02931 2,4-Dichlorophenol mg/L 73 53 - 122

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Spike

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Job ID: 860-63765-1

LCS LCS

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-135771/2-A

Matrix: Water

Pyridine

1,2,4-Trichlorobenzene

2,4,5-Trichlorophenol

2,4,6-Trichlorophenol

1,2-Diphenylhydrazine

2-Methylphenol

Bis(2-chloroethoxy)methane

4-Chlorophenyl phenyl ether

1,2,4,5-Tetrachlorobenzene

Analysis Batch: 135925

Client Sample ID: Lab Control Sample

%Rec

Prep Type: Total/NA **Prep Batch: 135771**

					,	
Analyte	Added	Result	Qualifier Unit	D %Rec	Limits	
Diethyl phthalate	0.0400	0.03443	mg/L	86	17 - 120	
2,4-Dimethylphenol	0.0400	0.02756	mg/L	69	42 - 120	
Dimethyl phthalate	0.0400	0.03194	mg/L	80	25 - 120	
4,6-Dinitro-2-methylphenol	0.0400	0.04432	mg/L	111	53 - 130	
2,4-Dinitrophenol	0.0400	0.03207	mg/L	80	12 - 173	
2,4-Dinitrotoluene	0.0400	0.03988	mg/L	100	48 - 127	
2,6-Dinitrotoluene	0.0400	0.03432	mg/L	86	68 - 137	
Di-n-octyl phthalate	0.0400	0.04285	mg/L	107	19 - 132	
Fluoranthene	0.0400	0.04074	mg/L	102	43 - 121	
Fluorene	0.0400	0.02989	mg/L	75	70 - 120	
Hexachlorobenzene	0.0400	0.03190	mg/L	80	8 - 142	
Hexachlorobutadiene	0.0400	0.02628	mg/L	66	38 - 120	
Hexachlorocyclopentadiene	0.0400	0.04492	mg/L	112	41 - 125	
Hexachloroethane	0.0400	0.02368	mg/L	59	55 - 120	
Indeno[1,2,3-cd]pyrene	0.0400	0.04374	mg/L	109	13 - 151	
Isophorone	0.0400	0.03018	mg/L	75	47 - 180	
Naphthalene	0.0400	0.02719	mg/L	68	36 - 120	
Nitrobenzene	0.0400	0.02869	mg/L	72	54 - 158	
2-Nitrophenol	0.0400	0.03098	mg/L	77	45 - 167	
4-Nitrophenol	0.0400	0.01826	mg/L	46	13 - 129	
N-Nitrosodimethylamine	0.0400	0.01407	mg/L	35	20 - 125	
N-Nitrosodiphenylamine	0.0400	0.03332	mg/L	83	2 - 196	
N-Nitrosodi-n-propylamine	0.0400	0.02874	mg/L	72	14 - 198	
bis(chloroisopropyl) ether	0.0400	0.02591	mg/L	65	63 - 139	
Pentachlorophenol	0.0400	0.04105	mg/L	103	38 - 152	
Phenanthrene	0.0400	0.03417	mg/L	85	65 - 120	
Phenol	0.0400	0.01100	mg/L	28	17 - 120	
Pyrene	0.0400	0.03706	mg/L	93	70 - 120	

0.0400

0.0400

0.0400

0.0400

0.0400

0.0400

0.0400

0.0400

0.0400

0.007859 J

0.02615

0.03083

0.03064

0.02822

0.02866

0.03183

0.02189

0.02763

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

20

65

77

77

71

72

80

55

5 - 94

57 - 130

35 - 111

52 - 129

49 - 165

38 - 145

28 - 136

14 - 176

41 - 125

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	99		31 - 132
2-Fluorophenol (Surr)	39		28 - 114
p-Terphenyl-d14 (Surr)	96		20 - 141
Phenol-d5 (Surr)	28		8 - 424
Nitrobenzene-d5 (Surr)	77		15-314
2-Fluorobiphenyl (Surr)	73		29 - 112

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample	ID:	LCSD	860-	13577	'1/3-A
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Matrix: Water

Client Sample ID: Lab	Control Sample Dup
	Pron Type: Total/NA

Prep Type: Total/NA Prep Batch: 135771

Analysis Batch: 135925								Prep Batch: 1357		
Analysis Baton. 100020	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi	
Acenaphthylene	0.0400	0.03316		mg/L		83	54 - 126	13	30	
Acenaphthene	0.0400	0.03335		mg/L		83	60 - 132	14	29	
Anthracene	0.0400	0.04075		mg/L		102	43 - 120	12	30	
Benzidine	0.0400	0.009572	J *- *1	mg/L		24	25 - 125	57	30	
Benzo[a]anthracene	0.0400	0.04124		mg/L		103	42 - 133	11	3	
3,4-Benzofluoranthene	0.0400	0.04495		mg/L		112	42 - 140	16	30	
Benzo[k]fluoranthene	0.0400	0.04329		mg/L		108	25 - 146	6	30	
Benzo[g,h,i]perylene	0.0400	0.04587		mg/L		115	13 - 195	10	30	
Benzo[a]pyrene	0.0400	0.04537		mg/L		113	32 - 148	12	30	
Bis(2-chloroethyl)ether	0.0400	0.03104		mg/L		78	43 - 126	14	30	
Bis(2-ethylhexyl) phthalate	0.0400	0.04369		mg/L		109	29 - 137	9	3	
4-Bromophenyl phenyl ether	0.0400	0.03632		mg/L		91	65 - 120	13	20	
Butyl benzyl phthalate	0.0400	0.04353		mg/L		109	12 - 140	11	30	
4-Chloro-3-methylphenol	0.0400	0.03522		mg/L		88	41 - 128	15	30	
2-Chloronaphthalene	0.0400	0.03046		mg/L		76	65 - 120	14	1	
2-Chlorophenol	0.0400	0.02941		mg/L		74	36 - 120	18	30	
Chrysene	0.0400	0.04123		mg/L		103	44 - 140	13	30	
Dibenz(a,h)anthracene	0.0400	0.04617		mg/L		115	16 - 200	10	30	
Di-n-butyl phthalate	0.0400	0.04510		mg/L		113	8 - 120	8	28	
3,3'-Dichlorobenzidine	0.0400	0.04306		mg/L		108	18 - 213	12	30	
2,4-Dichlorophenol	0.0400	0.03516		mg/L		88	53 - 122	18	30	
Diethyl phthalate	0.0400	0.03871		mg/L		97	17 - 120	12	30	
2,4-Dimethylphenol	0.0400	0.03275		mg/L		82	42 - 120	17	30	
Dimethyl phthalate	0.0400	0.03596		mg/L		90	25 - 120	12	30	
4,6-Dinitro-2-methylphenol	0.0400	0.05233	*+	mg/L		131	53 - 130	17	3(
2,4-Dinitrophenol	0.0400	0.03799		mg/L		95	12 - 173	17	3	
2,4-Dinitrotoluene	0.0400	0.04586		mg/L		115	48 - 127	14	2	
2,6-Dinitrotoluene	0.0400	0.03965		mg/L		99	68 - 137	14	29	
Di-n-octyl phthalate	0.0400	0.04707		mg/L		118	19 - 132	9	30	
Fluoranthene	0.0400	0.04520		mg/L		113	43 - 121	10	30	
Fluorene	0.0400	0.03404		mg/L		85	70 - 120	13	23	
Hexachlorobenzene	0.0400	0.03618		mg/L		90	8 - 142	13	30	
Hexachlorobutadiene	0.0400	0.02890		mg/L		72	38 - 120	9	30	
Hexachlorocyclopentadiene	0.0400	0.05264	*+	mg/L		132	41 - 125	16	30	
Hexachloroethane	0.0400	0.02615		mg/L		65	55 - 120	10	30	
Indeno[1,2,3-cd]pyrene	0.0400	0.04933		mg/L		123	13 - 151	12	3	
Isophorone	0.0400	0.03500		mg/L		88	47 - 180	15	30	
Naphthalene	0.0400	0.03125		mg/L		78	36 - 120	14	30	
Nitrobenzene	0.0400	0.03273		mg/L		82	54 - 158	13	30	
2-Nitrophenol	0.0400	0.03549		mg/L		89	45 - 167	14	30	
4-Nitrophenol	0.0400	0.02229		mg/L		56	13 - 129	20	30	
N-Nitrosodimethylamine	0.0400	0.01662		mg/L		42	20 - 125	17	30	
N-Nitrosodiphenylamine	0.0400	0.03837		mg/L		96	2 - 196	14	30	
N-Nitrosodi-n-propylamine	0.0400	0.03374		mg/L		84	14 - 198	16	30	
bis(chloroisopropyl) ether	0.0400	0.02997		mg/L		75	63 - 139	15	30	
Pentachlorophenol	0.0400	0.04716		mg/L		118	38 - 152	14	3(
Phenanthrene	0.0400	0.03886		mg/L		97	65 - 120	13	30	
Phenol	0.0400	0.01391		mg/L		35	17 - 120	23	30	

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Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Lab Sample ID: LCSD 860-135771/3-A

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 135925

Prep Type: Total/NA Prep Batch: 135771

Job ID: 860-63765-1

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Pyrene	0.0400	0.04189		mg/L		105	70 - 120	12	30
Pyridine	0.0400	0.009873	J	mg/L		25	5 - 94	23	30
1,2,4-Trichlorobenzene	0.0400	0.03062		mg/L		77	57 - 130	16	30
2,4,5-Trichlorophenol	0.0400	0.03643		mg/L		91	35 - 111	17	30
2,4,6-Trichlorophenol	0.0400	0.03607		mg/L		90	52 - 129	16	30
Bis(2-chloroethoxy)methane	0.0400	0.03269		mg/L		82	49 - 165	15	30
4-Chlorophenyl phenyl ether	0.0400	0.03264		mg/L		82	38 - 145	13	30
1,2-Diphenylhydrazine	0.0400	0.03574		mg/L		89	28 - 136	12	30
2-Methylphenol	0.0400	0.02676		mg/L		67	14 - 176	20	30
1,2,4,5-Tetrachlorobenzene	0.0400	0.03209		mg/L		80	41 - 125	15	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	110		31 - 132
2-Fluorophenol (Surr)	47		28 - 114
p-Terphenyl-d14 (Surr)	103		20 - 141
Phenol-d5 (Surr)	34		8 - 424
Nitrobenzene-d5 (Surr)	86		15 - 314
2-Fluorobiphenyl (Surr)	81		29 - 112

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 860-135853/1-A **Client Sample ID: Method Blank**

Matrix: Water

Analysis Batch: 136046

Prep Type: Total/NA Prep Batch: 135853

Analysis Batch: 136046								Prep Batch:	135853
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0000081	U	0.0000100	0.0000008	mg/L		12/19/23 11:31	12/20/23 21:59	1
	4			14					
4,4'-DDE	<0.00000109	U	0.0000100	0.0000010	mg/L		12/19/23 11:31	12/20/23 21:59	1
				9					
4,4'-DDT	<0.00000379	U	0.0000200	0.0000037	mg/L		12/19/23 11:31	12/20/23 21:59	1
				9					
Aldrin	<0.00000113			0.00000113	U			12/20/23 21:59	1
alpha-BHC	<0.00000142	U	0.0000090	0.0000014	mg/L		12/19/23 11:31	12/20/23 21:59	1
			0	2					
beta-BHC	<0.00000389	U	0.0000180	0.0000038	mg/L		12/19/23 11:31	12/20/23 21:59	1
Chlordona	-0.000103	- 11	0.000050	0.000103			10/10/02 11:21	10/00/02 01.50	
Chlordane	<0.000103		0.000250	0.000103	J			12/20/23 21:59	1
delta-BHC	<0.00000245	U	0.000250	0.0000024	mg/L		12/19/23 11:31	12/20/23 21:59	1
District.	-0.0000500		0.000400	5			40/40/00 44 04	40/00/00 04 50	
Dicofol	<0.0000500		0.000100	0.0000500				12/20/23 21:59	
Dieldrin	<0.00000095	U	0.0000100	0.0000009	mg/L		12/19/23 11:31	12/20/23 21:59	1
	3			53					
Endosulfan I	<0.00000107	U	0.0000100	0.0000010	mg/L		12/19/23 11:31	12/20/23 21:59	1
Endoculton II	<0.00000122		0.0000100	0.0000012	ma ar /1		10/10/02 11:21	12/20/23 21:59	1
Endosulfan II	<0.00000122	U	0.0000100	0.0000012	mg/L		12/19/23 11:31	12/20/23 21:59	ı
Endosulfan sulfate	<0.00000112		0.0000100	0.00000112	ma/L		12/19/23 11:31	12/20/23 21:59	1
Endrin	<0.00000156	Ü	0.0000100	0.0000015	U		12/19/23 11:31	12/20/23 21:59	1
	0.00000100	-	3.0000 100	6	9/ ⊏		, 10,20 11.01	,	
Endrin aldehyde	<0.00000118	U	0.0000100	0.00000118	ma/L		12/19/23 11:31	12/20/23 21:59	1
,		-			J. –				-

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Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Job ID: 860-63765-1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 860-135853/1-A

Matrix: Water

Analysis Batch: 136046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 135853

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	<0.00000299	U	0.0000100	0.0000029	mg/L		12/19/23 11:31	12/20/23 21:59	1
Heptachlor	<0.00000446	U	0.0000090	0.0000044	mg/L		12/19/23 11:31	12/20/23 21:59	1
Heptachlor epoxide	<0.00000134	U	0.0000100	0.0000013 4	mg/L		12/19/23 11:31	12/20/23 21:59	1
Methoxychlor	<0.00000390	U	0.0000200	0.0000039	mg/L		12/19/23 11:31	12/20/23 21:59	1
Toxaphene	< 0.0000769	U	0.000200	0.0000769	mg/L		12/19/23 11:31	12/20/23 21:59	1
Mirex	<0.0000200	U	0.0000200	0.0000200	mg/L		12/19/23 11:31	12/20/23 21:59	1
	MB	MB							

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,5,6-Tetrachloro-m-xylene (Surr)	69	18 - 126	12/19/23 11:31	12/20/23 21:59	1
DCB Decachlorobiphenyl (Surr)	113	15 - 136	12/19/23 11:31	12/20/23 21:59	1

Lab Sample ID: LCS 860-135853/2-A

Matrix: Water

Analysis Batch: 136046

Client Sample ID: Lab Control Sample

105

110

mg/L

mg/L

37 - 142

50 - 130

Prep Type: Total/NA

Prep Batch: 135853

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	0.000100	0.0001111		mg/L		111	31 - 141	
4,4'-DDE	0.000100	0.0001009		mg/L		101	30 - 145	
4,4'-DDT	0.000100	0.0001121		mg/L		112	25 - 160	
Aldrin	0.000100	0.00009367		mg/L		94	42 - 140	
alpha-BHC	0.000100	0.00009767		mg/L		98	37 - 140	
beta-BHC	0.000100	0.00009750		mg/L		97	17 - 147	
delta-BHC	0.000100	0.00007394	J	mg/L		74	19 - 140	
Dieldrin	0.000100	0.00008783		mg/L		88	36 - 146	
Endosulfan I	0.000100	0.0001030		mg/L		103	45 - 153	
Endosulfan II	0.000100	0.0001066		mg/L		107	22 - 171	
Endosulfan sulfate	0.000100	0.00009862		mg/L		99	26 - 144	
Endrin	0.000100	0.00008007		mg/L		80	30 - 147	
Endrin aldehyde	0.000100	0.0001274		mg/L		127	60 - 130	
gamma-BHC (Lindane)	0.000100	0.00009736		mg/L		97	34 - 140	
Heptachlor	0.000100	0.0001146		mg/L		115	34 - 140	

0.000100

0.000100

LCS LCS

Surrogate	%Recovery Qualifier	Limits
2,4,5,6-Tetrachloro-m-xylene	84	18 - 126
(Surr) DCB Decachlorobinhenyl (Surr)	120	15 - 136

Comple ID: I CCD 900 425952/2 A

Heptachlor epoxide

Methoxychlor

ı	Lab Sample ID: LCSD 860-135853/3-A	Client Sample ID: Lab Control Sample Dup								
	Matrix: Water							Prep Ty	pe: Tot	al/NA
	Analysis Batch: 136046							Prep Ba	atch: 13	35853
		Spike	LCSD	LCSD				%Rec		RPD
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	4,4'-DDD	0.000100	0.0001077		mg/L		108	31 - 141	3	30

0.0001049

0.0001097

Eurofins Houston

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Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Lab Sample ID: LCSD 860-135853/3-A

Job ID: 860-63765-1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Client Sample ID: Lab Control Sample Dup

97

108

Matrix: Water

Analysis Batch: 136046

Prep Type: Total/NA **Prep Batch: 135853**

LCSD LCSD **RPD** Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 4.4'-DDE 0.000100 0.00009272 mg/L 93 30 - 145 8 30 4,4'-DDT 0.000100 0.0001102 mg/L 110 25 - 160 2 30 30 Aldrin 0.000100 0.00008638 mg/L 86 42 - 140 8 alpha-BHC 0.000100 0.00008964 mg/L 90 37 - 140 9 30 beta-BHC 92 17 - 147 30 0.000100 0.00009178 mg/L 6 delta-BHC 0.000100 0.00007005 J mg/L 70 19 - 140 5 30 Dieldrin 0.000100 0.00008107 mg/L 81 36 - 146 8 30 96 Endosulfan I 0.000100 0.00009639 mg/L 45 - 153 30 Endosulfan II 0.000100 0.0001024 mg/L 102 22 - 171 30 91 30 Endosulfan sulfate 0.000100 0.00009086 mg/L 26 - 144 8 76 30 Endrin 0.000100 0.00007590 mg/L 30 - 147 7 30 Endrin aldehyde 0.000100 119 60 - 130 0.0001189 mg/L gamma-BHC (Lindane) 0.000100 34 - 140 30 0.00009061 mg/L 91 108 34 - 140 Heptachlor 0.000100 0.0001075 mg/L 6 30

0.00009693

0.0001081

mg/L

mg/L

0.000100

0.000100

LCSD LCSD

Surrogate %Recovery Qualifier Limits 78 18 - 126 2,4,5,6-Tetrachloro-m-xylene (Surr) DCB Decachlorobiphenyl (Surr) 111 15 - 136

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 860-135853/1-A

Matrix: Water

Heptachlor epoxide

Methoxychlor

Analysis Batch: 135998

Client Sample ID: Method Blank Prep Type: Total/NA

37 - 142

50 - 130

Prep Batch: 135853

8

30

MB MB Result Qualifier RL **MDL** Unit D Prepared Dil Fac **Analyte** Analyzed PCB-1016 <0.0000125 0.0000125 mg/L U 0.000100 12/19/23 11:31 12/20/23 13:53 PCB-1242 <0.0000125 U 0.000100 0.0000125 mg/L 12/19/23 11:31 12/20/23 13:53 PCB-1254 <0.0000780 U 0.000100 0.0000078 mg/L 12/19/23 11:31 12/20/23 13:53 PCB-1221 <0.0000125 U 0.000100 0.0000125 mg/L 12/19/23 11:31 12/20/23 13:53 PCB-1232 <0.0000125 U 0.000100 0.0000125 mg/L 12/19/23 11:31 12/20/23 13:53 12/19/23 11:31 12/20/23 13:53 PCB-1248 <0.000125 U 0.000100 0.0000125 mg/L PCB-1260 <0.0000780 U 0.000100 0.0000078 mg/L 12/19/23 11:31 12/20/23 13:53 0.000100 Polychlorinated biphenyls, Total <0.000100 U 0.000100 mg/L 12/19/23 11:31 12/20/23 13:53

MB MB

Surrogate	%Recovery Qu	ualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,5,6-Tetrachloro-m-xylene (Surr)	81		18 - 126	12/19/23 11:31	2/20/23 13:53	1
DCB Decachlorobiphenyl (Surr)	145 S1	1+	15 - 136	12/19/23 11:31 12	2/20/23 13:53	1

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1/16/2024

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

LCS LCS

0.0009948

0.001137

Result Qualifier

Unit

mg/L

mg/L

Spike

Added

0.00100

0.00100

Project/Site: Central Plant 24HR Comps

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 860-135853/4-A

Matrix: Water

Analyte

PCB-1016

PCB-1260

Analysis Batch: 135998

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135853

%Rec Limits

%Rec 99 61 - 103

114 37 - 130

LCS LCS

Surrogate %Recovery Qualifier Limits 2,4,5,6-Tetrachloro-m-xylene 107 18 - 126 (Surr) DCB Decachlorobiphenyl (Surr) 160 S1+ 15 - 136

Lab Sample ID: LCSD 860-135853/5-A

Analysis Batch: 135998

Matrix: Water

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 135853 %Rec **RPD**

Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit PCB-1016 94 24 0.00100 mg/L 61 - 103 6 0.0009361 PCB-1260 0.00100 0.001058 mg/L 106 37 - 130 28

LCSD LCSD

Surrogate %Recovery Qualifier Limits 18 - 126 2,4,5,6-Tetrachloro-m-xylene 101

156 S1+ 15 - 136 DCB Decachlorobiphenyl (Surr)

Method: 615 - Herbicides (GC)

Lab Sample ID: MB 860-136097/1-A

Matrix: Water

Analysis Batch: 136191

Client Sample ID: Method Blank

Prep Type: Total/NA **Prep Batch: 136097**

MB MB

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 2,4-D 12/20/23 15:10 12/21/23 17:53 <0.0000540 U 0.000200 0.0000540 mg/L 0.0000423 mg/L 12/20/23 15:10 12/21/23 17:53 Silvex (2,4,5-TP) <0.0000423 U 0.000200

MB MB

Qualifier Limits Dil Fac Surrogate %Recovery Prepared Analyzed 45 - 150 12/20/23 15:10 12/21/23 17:53 2,4-Dichlorophenylacetic acid 125

LCS LCS

Lab Sample ID: LCS 860-136097/2-A

Matrix: Water

Analysis Batch: 136191

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 136097

%Rec Limits

Added Result Qualifier Analyte Unit D %Rec 0.00201 55 - 145 2.4-D 0.002182 mg/L 108 Silvex (2,4,5-TP) 0.00201 0.002372 mg/L 118 55 - 140

Spike

LCS LCS

%Recovery Qualifier Limits Surrogate 2,4-Dichlorophenylacetic acid 134 45 - 150

Eurofins Houston

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Method: 615 - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 860-136097/3-A Client Sample ID: Lab Control Sample Dup

0.002307

0.002559

Spike

Added

0.00200

0.00200

Matrix: Water

Silvex (2,4,5-TP)

Analyte 2,4-D

Analysis Batch: 136191

Prep Type: Total/NA

55 - 140

Client Sample ID: Method Blank

25

Prep Batch: 136097 LCSD LCSD %Rec **RPD** Result Qualifier Unit %Rec Limits RPD Limit mg/L 115 55 - 145 6 25

128

LCSD LCSD

Surrogate %Recovery Qualifier Limits 2,4-Dichlorophenylacetic acid 140 45 - 150

Method: 632 - Carbamate and Urea Pesticides (HPLC)

Lab Sample ID: MB 860-135711/1-A **Matrix: Water**

Analysis Batch: 136732

MB MB

Prep Type: Total/NA **Prep Batch: 135711**

mg/L

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 5.00 Carbaryl <1.85 U 1.85 ug/L 12/18/23 14:57 12/22/23 14:12 0.0900 Diuron <0.0514 U 0.0514 ug/L 12/18/23 14:57 12/22/23 14:12

Lab Sample ID: LCS 860-135711/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 136732

Prep Batch: 135711 Spike LCS LCS %Rec Added Result Qualifier Unit %Rec Limits

Analyte Carbaryl 100 90.12 90 70 - 130 ug/L Diuron 2.00 2.002 ug/L 100 70 - 130

Lab Sample ID: LCS 860-135711/2-A **Client Sample ID: Lab Control Sample**

Matrix: Water

Analysis Batch: 136732

Prep Type: Total/NA **Prep Batch: 135711**

LCS LCS Spike %Rec Added %Rec Result Qualifier Limits Unit 100 89.63 ug/L 90 70 - 130 2.00 1.975 99 ug/L 70 - 130

Method: 1631E - Mercury, Low Level (CVAFS)

0

Lab Sample ID: MB 400-656204/3-A **Client Sample ID: Method Blank**

Analyte

Carbaryl

Diuron

Matrix: Water Prep Type: Total/NA **Analysis Batch: 656234 Prep Batch: 656204** MB MB

MDL Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac 0.0000002 mg/L 12/29/23 16:00 12/30/23 10:30 Mercury <0.00000020 U 0.0000005 00

Lab Sample ID: LCS 400-656204/4-A **Client Sample ID: Lab Control Sample Matrix: Water**

Prep Type: Total/NA **Analysis Batch: 656234 Prep Batch: 656204** %Rec

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Mercury 0.0000050 0.000004901 mg/L 98 79 - 121

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1/16/2024

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: LCSD 400-656204/5-A

Matrix: Water

Analysis Batch: 656234

Analyte Mercury

Spike Added 0.0000050 0

> Spike Added

0.0000250

LCSD LCSD Result Qualifier 0.000004899

Unit mg/L

%Rec 98

79 - 121 0 Client Sample ID: Central Plant Influent 24HR Comp

%Rec

Limits

%Rec

20

RPD

RPD

Limit

Prep Type: Total/NA

Prep Batch: 656204

Lab Sample ID: 860-63765-1 MS

Matrix: Water

Analyte

Mercury

Analysis Batch: 656234

Sample Sample Result Qualifier 0.00000486

Spike Added 0.0000250

0.00002877

0.00002842

Result Qualifier

MS MS

MSD MSD

Result Qualifier

Unit mg/L

Unit

mg/L

%Rec Limits 71 - 125

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 656204

Lab Sample ID: 860-63765-1 MSD

Matrix: Water

Analysis Batch: 656234

Sample Sample Analyte Result Qualifier Mercury 0.00000486

Client Sample ID: Central Plant Influent 24HR Comp

%Rec

Prep Type: Total/NA Prep Batch: 656204

%Rec **RPD** Limits **RPD** Limit

Method: 365.1 - Phosphorus, Ortho

Lab Sample ID: MB 860-136250/75

Matrix: Water

Analysis Batch: 136250

Client Sample ID: Method Blank

71 - 125

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

3

MB MB

Analyte

ı	Orthophosphate as P
	Orthophosphorus as PO4
ľ	

Result Qualifier

RL 0.0200 <0.00590 U 0.0613 <0.0181 U

MDL Unit 0.00590 mg/L 0.0181 mg/L Prepared Analyzed 12/20/23 16:50 12/20/23 16:50

Client Sample ID: Lab Control Sample Prep Type: Total/NA

%Rec

Matrix: Water

Analysis Batch: 136250

Analyte Orthophosphate as P Orthophosphorus as PO4

Spike Added 0.250

0.766

Spike

Added

0.250

0.766

Spike

Result Qualifier 0.2370 0.7267

LCS LCS

Unit mg/L mg/L

%Rec Limits 95 90 - 110 95 90 - 110

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 860-136250/77

Lab Sample ID: LCS 860-136250/76

Matrix: Water

Analysis Batch: 136250

Analyte Orthophosphate as P Orthophosphorus as PO4

LCSD LCSD Result Qualifier 0.2435 0.7466

MS MS

Unit mg/L mg/L

%Rec Limits RPD 97 90 - 11097 90 - 110

%Rec

%Rec

Lab Sample ID: 860-63765-2 MS **Matrix: Water**

Analysis Batch: 136250

Sample Sample Analyte

Result Qualifier 2.55 H H3 F1 Orthophosphate as P Orthophosphorus as PO4 7.81 H H3 F1

Added 2.50 7.66

Result Qualifier 2.706 F1 8.297 F1

Unit mg/L mg/L

%Rec Limits 6 90 - 110 6 90 - 110

Client Sample ID: Central Plant Effluent 24HR Comp

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24

Dil Fac

RPD

Limit

20

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Method: 365.1 - Phosphorus, Ortho (Continued)

Lab Sample ID: 860-63765-2 MSD Client Sample ID: Central Plant Effluent 24HR Comp **Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 136250

inaly old Datolli 100200											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Orthophosphate as P	2.55	H H3 F1	2.50	2.754	F1	mg/L		8	90 - 110	2	20
Orthophosphorus as PO4	7.81	H H3 F1	7.66	8.444	F1	mg/L		8	90 - 110	2	20

QC Association Summary

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

GC/MS Semi VOA

Pren	Batch:	135771
ILED	Dateii.	133111

Lab Sample ID 860-63765-1	Client Sample ID Central Plant Influent 24HR Comp	Prep Type Total/NA	Matrix Water	Method 625	Prep Batch
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	625	
MB 860-135771/1-A	Method Blank	Total/NA	Water	625	
LCS 860-135771/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 860-135771/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 135784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	625.1	135771
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	625.1	135771

Analysis Batch: 135925

Lab Sample ID MB 860-135771/1-A	Client Sample ID Method Blank	Prep Type Total/NA	Matrix Water	Method 625.1	Prep Batch 135771
LCS 860-135771/2-A	Lab Control Sample	Total/NA	Water	625.1	135771
LCSD 860-135771/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	135771

GC Semi VOA

Prep Batch: 135853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	608	
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	608	
MB 860-135853/1-A	Method Blank	Total/NA	Water	608	
LCS 860-135853/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 860-135853/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 860-135853/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 860-135853/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 135998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	608.3	135853
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	608.3	135853
MB 860-135853/1-A	Method Blank	Total/NA	Water	608.3	135853
LCS 860-135853/4-A	Lab Control Sample	Total/NA	Water	608.3	135853
LCSD 860-135853/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	135853

Analysis Batch: 136046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-135853/1-A	Method Blank	Total/NA	Water	608.3	135853
LCS 860-135853/2-A	Lab Control Sample	Total/NA	Water	608.3	135853
LCSD 860-135853/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	135853

Prep Batch: 136097

Lab Sample ID 860-63765-1	Client Sample ID Central Plant Influent 24HR Comp	Prep Type Total/NA	Matrix Water	Method 3511	Prep Batch
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	3511	
MB 860-136097/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-136097/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-136097/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

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Job ID: 860-63765-1

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QC Association Summary

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

GC Semi VOA

Analysis Batch: 136191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-136097/1-A	Method Blank	Total/NA	Water	615	136097
LCS 860-136097/2-A	Lab Control Sample	Total/NA	Water	615	136097
LCSD 860-136097/3-A	Lab Control Sample Dup	Total/NA	Water	615	136097

Analysis Batch: 136200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	608.3	135853
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	608.3	135853

Analysis Batch: 136359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	615	136097
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	615	136097

HPLC/IC

Prep Batch: 135711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	CWA_Prep	
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	CWA_Prep	
MB 860-135711/1-A	Method Blank	Total/NA	Water	CWA_Prep	
LCS 860-135711/2-A	Lab Control Sample	Total/NA	Water	CWA_Prep	

Analysis Batch: 136732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	632	135711
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	632	135711
MB 860-135711/1-A	Method Blank	Total/NA	Water	632	135711
LCS 860-135711/2-A	Lab Control Sample	Total/NA	Water	632	135711
LCS 860-135711/2-A	Lab Control Sample	Total/NA	Water	632	135711

Metals

Prep Batch: 656204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	1631E	<u> </u>
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	1631E	
860-63765-3	Central Plant Influent LLHg FB	Total/NA	Water	1631E	
860-63765-4	Central Plant Effluent LLHg FB	Total/NA	Water	1631E	
MB 400-656204/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-656204/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-656204/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	
860-63765-1 MS	Central Plant Influent 24HR Comp	Total/NA	Water	1631E	
860-63765-1 MSD	Central Plant Influent 24HR Comp	Total/NA	Water	1631E	

Analysis Batch: 656234

Lab Sample ID 860-63765-1	Client Sample ID Central Plant Influent 24HR Comp	Prep Type Total/NA	Matrix Water	Method 1631E	Prep Batch 656204
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	1631E	656204
860-63765-3	Central Plant Influent LLHg FB	Total/NA	Water	1631E	656204
860-63765-4	Central Plant Effluent LLHg FB	Total/NA	Water	1631E	656204
MB 400-656204/3-A	Method Blank	Total/NA	Water	1631E	656204

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Job ID: 860-63765-1

QC Association Summary

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Metals (Continued)

Analysis Batch: 656234 (Continued)

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	LCS 400-656204/4-A	Lab Control Sample	Total/NA	Water	1631E	656204
١	LCSD 400-656204/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	656204
	860-63765-1 MS	Central Plant Influent 24HR Comp	Total/NA	Water	1631E	656204
	860-63765-1 MSD	Central Plant Influent 24HR Comp	Total/NA	Water	1631E	656204

General Chemistry

Analysis Batch: 136250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63765-1	Central Plant Influent 24HR Comp	Total/NA	Water	365.1	
860-63765-2	Central Plant Effluent 24HR Comp	Total/NA	Water	365.1	
MB 860-136250/75	Method Blank	Total/NA	Water	365.1	
LCS 860-136250/76	Lab Control Sample	Total/NA	Water	365.1	
LCSD 860-136250/77	Lab Control Sample Dup	Total/NA	Water	365.1	
860-63765-2 MS	Central Plant Effluent 24HR Comp	Total/NA	Water	365.1	
860-63765-2 MSD	Central Plant Effluent 24HR Comp	Total/NA	Water	365.1	

2

4

6

8

9

4 4

12

13

15

16

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Influent 24HR Comp

Date Collected: 12/13/23 12:00

Date Received: 12/18/23 13:54

Client: Bio Chem Lab, Inc

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	625			1000 mL	1.00 mL	135771	12/19/23 07:06	DR	EET HOU
Total/NA	Analysis	625.1		10	1 MJ/Kg	1 MJ/Kg	135784	12/19/23 18:14	T1S	EET HOU
Total/NA	Prep	608			1000 mL	1 mL	135853	12/19/23 11:31	ВН	EET HOU
Total/NA	Analysis	608.3		1			135998	12/20/23 15:07	A1S	EET HOU
Total/NA	Prep	608			1000 mL	1 mL	135853	12/19/23 11:31	ВН	EET HOU
Total/NA	Analysis	608.3		1			136200	12/21/23 12:20	KM	EET HOU
Total/NA	Prep	3511			50.1 mL	4 mL	136097	12/20/23 15:10	TH	EET HOU
Total/NA	Analysis	615		1			136359	12/22/23 11:20	WP	EET HOU
Total/NA	Prep	CWA_Prep			1000 mL	10 mL	135711	12/18/23 14:57	DR	EET HOU
Total/NA	Analysis	632		1			136732	12/22/23 20:13	YG	EET HOU
Total/NA	Prep	1631E			8 mL	40 mL	656204	12/29/23 15:10	VLC	EET PEN
							Completed:	12/30/23 09:30	1	
Total/NA	Analysis	1631E		1			656234	12/30/23 12:40	VLC	EET PEN
Total/NA	Analysis	365.1		10	10 mL	10 mL	136250	12/20/23 17:17	LD	EET HOU

Client Sample ID: Central Plant Effluent 24HR Comp

Date Collected: 12/13/23 23:59

Date Received: 12/18/23 13:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	625			1000 mL	1.00 mL	135771	12/19/23 07:06	DR	EET HOU
Total/NA	Analysis	625.1		1	1 MJ/Kg	1 MJ/Kg	135784	12/19/23 18:38	T1S	EET HOU
Total/NA	Prep	608			1000 mL	1 mL	135853	12/19/23 11:31	ВН	EET HOU
Total/NA	Analysis	608.3		1			135998	12/20/23 15:19	A1S	EET HOU
Total/NA	Prep	608			1000 mL	1 mL	135853	12/19/23 11:31	ВН	EET HOU
Total/NA	Analysis	608.3		1			136200	12/21/23 12:48	KM	EET HOU
Total/NA	Prep	3511			49.4 mL	4 mL	136097	12/20/23 15:10	TH	EET HOU
Total/NA	Analysis	615		1			136359	12/22/23 11:46	WP	EET HOU
Total/NA	Prep	CWA_Prep			1000 mL	10 mL	135711	12/18/23 14:57	DR	EET HOU
Total/NA	Analysis	632		1			136732	12/22/23 20:46	YG	EET HOU
Total/NA	Prep	1631E			40 mL	40 mL	656204	12/29/23 15:10	VLC	EET PEN
							Completed:	12/30/23 09:30	1	
Total/NA	Analysis	1631E		1			656234	12/30/23 13:03	VLC	EET PEN
Total/NA	Analysis	365.1		10	10 mL	10 mL	136250	12/20/23 17:17	LD	EET HOU

Client Sample ID: Central Plant Influent LLHg FB

Date Collected: 12/13/23 12:00

Date Received: 12/18/23 13:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	656204	12/29/23 15:10	VLC	EET PEN
							Completed:	12/30/23 09:30	1	
Total/NA	Analysis	1631E		1			656234	12/30/23 13:10	VLC	EET PEN

Eurofins Houston

Lab Sample ID: 860-63765-1

Lab Sample ID: 860-63765-2

Lab Sample ID: 860-63765-3

Matrix: Water

Matrix: Water

Matrix: Water

Lab Chronicle

Client: Bio Chem Lab, Inc Job ID: 860-63765-1

Project/Site: Central Plant 24HR Comps

Client Sample ID: Central Plant Effluent LLHg FB

Lab Sample ID: 860-63765-4 Date Collected: 12/13/23 23:59

Matrix: Water

Date Received: 12/18/23 13:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	656204	12/29/23 15:10	VLC	EET PEN
							Completed:	12/30/23 09:30	1	
Total/NA	Analysis	1631E		1			656234	12/30/23 13:33	VLC	EET PEN
	Total/NA	Prep Type Type Total/NA Prep	Prep Type Type Method Total/NA Prep 1631E	Prep Type Type Method Run Total/NA Prep 1631E	Prep TypeTypeMethodRunFactorTotal/NAPrep1631E	Prep Type Type Method Run Factor Amount Total/NA Prep 1631E 40 mL	Prep TypeTypeMethodRunFactorAmountAmountTotal/NAPrep1631E40 mL40 mL	Prep TypeTypeMethodRunFactorAmountAmountNumberTotal/NAPrep1631E40 mL40 mL40 mL656204	Prep Type Type Method Run Factor Amount Amount Number or Analyzed Total/NA Prep 1631E 40 mL 40 mL 656204 12/29/23 15:10 Completed: 12/30/23 09:30	Prep Type Type Method Run Factor Amount Amount Number or Analyzed Analyst Total/NA Prep 1631E 40 mL 40 mL 40 mL 656204 12/29/23 15:10 VLC Completed: 12/30/23 09:30 ¹

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

Ana-Lab Co = Ana-Lab Corporation, 2600 Dudley Rd, Kilgore, TX 75662

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Job ID: 860-63765-1

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

uthority	Prog	ram	Identification Number	Expiration Date
exas	NELA	\P	T104704215-23-53	06-30-24
,	•	•	not certified by the governing authori	ty. This list may include analytes
,	does not offer certificatio		A I. A.	
Analysis Method	Prep Method	Matrix	Analyte	
365.1		Water	Orthophosphorus as PO4	l .
608.3	608	Water	Dicofol	
608.3	608	Water	Mirex	
608.3	608	Water	Polychlorinated biphenyls	s, Total
000.5				

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Method Summary

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Method **Method Description Protocol** Laboratory 625.1 Semivolatile Organic Compounds (GC/MS) EPA **EET HOU** 608.3 Organochlorine Pesticides in Water **EPA EET HOU** 608.3 Polychlorinated Biphenyls (PCBs) (GC) **EPA EET HOU** 615 Herbicides (GC) EPA-01 **EET HOU** 632 Carbamate and Urea Pesticides (HPLC) EPA-01 **EET HOU** 1631E Mercury, Low Level (CVAFS) EPA **EET PEN** 365.1 Phosphorus, Ortho EET HOU EPA 604.1 EPA 604.1 - Hexachlorophene **EPA** Ana-Lab Co 614 EPA 614 - Organophosphorus Pesticides **EPA** Ana-Lab Co Preparation, Mercury, Low Level **EET PEN** 1631E **EPA** 3511 Microextraction of Organic Compounds SW846 **EET HOU** 608 Liquid-Liquid Extraction (Separatory Funnel) **EPA EET HOU** 625 Liquid-Liquid Extraction EPA **EET HOU** CWA_Prep Liquid-Liquid Extraction (Separatory Funnel) **EPA EET HOU**

Protocol References:

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

Ana-Lab Co = Ana-Lab Corporation, 2600 Dudley Rd, Kilgore, TX 75662

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Job ID: 860-63765-1

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Sample Summary

Client: Bio Chem Lab, Inc

Project/Site: Central Plant 24HR Comps

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-63765-1	Central Plant Influent 24HR Comp	Water	12/13/23 12:00	12/18/23 13:54
860-63765-2	Central Plant Effluent 24HR Comp	Water	12/13/23 23:59	12/18/23 13:54
860-63765-3	Central Plant Influent LLHg FB	Water	12/13/23 12:00	12/18/23 13:54
860-63765-4	Central Plant Effluent LLHg FB	Water	12/13/23 23:59	12/18/23 13:54

Job ID: 860-63765-1

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1084891_r99_09_CoC1_of_1	SPL Kilgore CoC TABM 1084891_1_of_1	6
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Email: Kilgore.projectmanager@spl-inc.com



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SAMPLE CROSS REFERENCE

Project 1084891

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Eurofins Test America Houston Bethany A McDaniel 4145 Greenbriar Drive Stafford, TX 77477

Sample	Sample ID	Taken	Time	Received
2257739	860-63765-1	12/13/2023	12:00:00	12/19/2023

Bottle 01 Client Supplied Amber Glass

Bottle 02 Client Supplied Amber Glass

Bottle 03 Prepared Bottle: 2 mL Autosampler Vial (Batch 1095776) Volume: 5.00000 mL <== Derived from 01 (1032 ml)

Bottle 04 Prepared Bottle: OPXL/OPXS 2 mL Autosampler Vial (Batch 1096188) Volume: 1.00000 mL <== Derived from 02 (1014 ml)

	Method EPA 604.1 EPA 614	Bottle 03 04	PrepSet 1095776 1096188	Preparation 12/18/2023 12/20/2023	QcGroup 1096655 1097721	Analytical 12/20/2023 12/27/2023
	EPA 622	04	1096188	12/20/2023	1097719	12/27/2023
Sample	Sample ID	Taken	Time		Received	
2257740	860-63765-2	12/13/2023	23:59:00	<u> </u>	12/19/2023	

Bottle 01 Client Supplied Amber Glass

Bottle 02 Client Supplied Amber Glass

Bottle 03 Prepared Bottle: 2 mL Autosampler Vial (Batch 1095776) Volume: 5.00000 mL <== Derived from 01 (1031 ml)

Bottle 04 Prepared Bottle: OPXL/OPXS 2 mL Autosampler Vial (Batch 1096188) Volume: 1.00000 mL <== Derived from 02 (1025 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 604.1	03	1095776	12/18/2023	1096655	12/20/2023
EPA 614	04	1096188	12/20/2023	1097721	12/27/2023
EPA 622	04	1096188	12/20/2023	1097719	12/27/2023

Email: Kilgore.projectmanager@spl-inc.com



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Eurofins Test America Houston

Project

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RESULTS

				RESU	JL12					
				Sample	Results					
	2257739	860-63765-1	CEI	NTRAL P	LANT INI	FLUENT		Received:	12/19	0/2023
N	ion-Potable Wate	r	Collected by: Client Taken: 12/13/2023		Test Americ 2:00:00		PO:		US13130	21524
E	EPA 604.1		Prepared:	1095776	12/20/2023	07:00:00	Analyzed 1096655	12/20/2023	22:16:00	BRU
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
Z	Hexachloropho	ene	16.0	ug/	L 0.02	242	E	70-30-4		03
Е	EPA 614		Prepared:	1096188	12/20/2023	14:00:00	Analyzed 1097721	12/27/2023	19:41:00	KLB
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Azinphos-met	hyl (Guthion)	<0.0493	ug/	L 0.04	193	X	86-50-0		04
NELAC	Demeton		<0.0493	ug/				8065-48-3		04
NELAC	Diazinon		<0.0493	ug/				333-41-5		04
NELAC	Malathion		<0.0493	ug/				121-75-5		04
NELAC NELAC	Parathion, ethy Parathion, met		<0.0493 <0.0493	ug/ ug/				56-38-2 298-00-0		04 04
E	EPA 622		Prepared:	1096188	12/20/2023	14:00:00	Analyzed 1097719	12/27/2023	19:41:00	KLB
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
NELAC	Chlorpyrifos		<0.0493	ug/	L 0.04	193		2921-88-2		04
	2257740	860-63765-2	CEI	NTRAL P	LANT INI	FLUENT		Received:	12/19	0/2023
N	on-Potable Wate	r	Collected by: Client Taken: 12/13/2023		Test Americ 3:59:00		PO:		US13130	21524
E	FPA 604.1		Prepared:	1095776	12/20/2023	07:00:00	Analyzed 1096655	12/20/2023	22:49:00	BRU
	Parameter		Results	Un	its RL		Flags	CAS		Bottle
Z	Hexachlorophe	ene	<0.0242	ug/	L 0.02	242		70-30-4		03



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Flags

CAS

2921-88-2

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01/08/2024

2257740 860-63765-2 CENTRAL PLANT INFLUENT 12/19/2023

Received: Eurofins Test Americ Non-Potable Water PO: Collected by: Client US1313021524

> Taken: 12/13/2023 23:59:00

EPA 6	514	Prepared:	1096188 1.	2/20/2023	14:00:00	Analyzed 1097721	12/27/2023	20:07:00	KLI
Pá	arameter	Results	Units	RL		Flags	CAS		Bottle
C A	zinphos-methyl (Guthion)	<0.0488	ug/L	0.0488		X	86-50-0		04
C D	emeton	<0.0488	ug/L	0.0488			8065-48-3		04
C Di	iazinon	<0.0488	ug/L	0.0488			333-41-5		04
C M	alathion	<0.0488	ug/L	0.0488			121-75-5		04
C Pa	arathion, ethyl	<0.0488	ug/L	0.0488			56-38-2		04
C Pa	arathion, methyl	<0.0488	ug/L	0.0488			298-00-0		04

ug/L Sample Preparation

Units

RL

0.0488

2257739 860-63765-1 CENTRAL PLANT INFLUENT 12/19/2023 Received:

US1313021524

Bottle

04

12/13/2023

Results

<0.0488

	Hexachlorophene Extraction	5/1032	ml					01
	EPA 604.1	Prepared: 10957	76 12/20/2023	07:00:00	Analyzed 1095776	12/20/2023	07:00:00	CRS
z	Return Cooler/No bottles Require	returned						
	Cooler Return	Prepared:	12/20/2023	16:00:00	Analyzed	12/20/2023	16:00:00	DRS
z	Environmental Fee (per Project)	Verified						
		Prepared:	12/20/2023	13:03:23	Calculated	12/20/2023	13:03:23	CAL



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Parameter

Chlorpyrifos

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Printed: 01/08/2024 2257739 CENTRAL PLANT INFLUENT 860-63765-1 12/19/2023 Received: US1313021524 12/13/2023 EPA 604.1 Prepared: 1095776 12/20/2023 07:00:00 Analyzed 1096655 12/20/2023 22:16:00 BRUHexachlorophene Expansion Entered 70-30-4 03 EPA 608.3 Prepared: 1096188 12/20/2023 14:00:00 14:00:00 Analyzed 1096188 12/20/2023 CRS 1/1014 Solvent Extraction 02 ml EPA 614 Prepared: 1096188 12/20/2023 14:00:00 Analyzed 1097721 12/27/2023 19:41:00 KLB Permit Organophos. Pesticides Entered 04 Analyzed 1097719 12/27/2023 EPA 622 Prepared: 1096188 14:00:00 19:41:00 12/20/2023 **KLB** NELAC For use with EXP !CPP only Entered 04 2257740 860-63765-2 CENTRAL PLANT INFLUENT Received: 12/19/2023 US1313021524 12/13/2023 CRSEPA 604.1 Prepared: 1095776 12/20/2023 07:00:00 Analyzed 1095776 12/20/2023 07:00:00 Hexachlorophene Extraction 5/1031 ml 01 EPA 604.1 Prepared: 1095776 12/20/2023 07:00:00 Analyzed 1096655 12/20/2023 22:49:00 BRUHexachlorophene Expansion Entered 70-30-4 03



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Printed: 01/08/2024

Received: 12/19/2023

US1313021524

12/13/2023

EPA 608.3	Prepared:	1096188	12/20/2023	14:00:00	Analyzed	1096188	12/20/2023	14:00:00	CRS
Solvent Extraction	1/1025	mi	I						02
EPA 614	Prepared:	1096188	12/20/2023	14:00:00	Analyzed	1097721	12/27/2023	20:07:00	KLB
Permit Organophos. Pesticides	Entered								04
EPA 622	Prepared:	1096188	12/20/2023	14:00:00	Analyzed	1097719	12/27/2023	20:07:00	KLB

CENTRAL PLANT INFLUENT

NELAC For use with EXP !CPP only Entered 04

Qualifiers:

2257740

 $\mbox{E - Estimated Value} \qquad \qquad \mbox{X - Standard reads higher than desired}.$

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



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The Science of Sure

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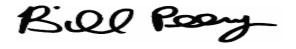
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Bill Peery, MS, VP Technical Services



QUALITY CONTROL



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Eurofins Test America Houston Bethany A McDaniel 4145 Greenbriar Drive Stafford, TX 77477

Analytical Set	1096655									E	PA 604.1
				В	lank						
Parameter_	PrepSet	Reading	MDL	MQL	Units			File			
Hexachlorophene	1095776	ND	0.0089	0.025	ug/L			125787152			
				(CCV						
Parameter Parame		Reading	Known	Units	Recover%	Limits%		File			
Hexachlorophene		4700	5000	ug/L	93.9	70.0 - 130		125787151			
Hexachlorophene		4670	5000	ug/L	93.4	70.0 - 130		125787158			
Hexachlorophene		4740	5000	ug/L	94.7	70.0 - 130		125787161			
Hexachlorophene		4690	5000	ug/L	93.8	70.0 - 130		125787162			
Hexachlorophene		4790	5000	ug/L	95.8	70.0 - 130		125787165			
				LC	S Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexachlorophene	1095776	32.3	39.4		50.0	25.5 - 145	64.6	78.8	ug/L	19.8	50.0
Analytical Set	1097719										EPA 622
				В	lank						
Parameter	PrepSet	Reading	MDL	MQL	Units			File			
Chlorpyrifos	1096188	ND	0.0904	50.0	ug/L			125816697			
				(ccv						
Parameter		Reading	Known	Units	Recover%	Limits%		File			
Chlorpyrifos		998	1000	ug/L	99.8	48.0 - 150		125816696			
Chlorpyrifos		1230	1000	ug/L	123	48.0 - 150		125816704			
				LC	S Dup						
Parameter Parameter Parameter	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chlorpyrifos	1096188	509	547		1000	0.100 - 128	50.9	54.7	ug/L	7.20	30.0
				Sur	rogate						
Parameter Parame	Sample	Туре	Reading	Known	Units	Recover%	Limits%	File			
Tributylphosphate		CCV	1000	1000	ug/L	100	0.100 - 115	125816696			
Tributylphosphate		CCV	1120	1000	ug/L	112	0.100 - 115	125816704			
Triphenylphosphate		CCV	999	1000	ug/L	99.9	0.100 - 115	125816696			
Triphenylphosphate		CCV	1130	1000	ug/L	113	0.100 - 115	125816704			
Tributylphosphate	1096188	Blank	288	1000	ug/L	28.8	0.100 - 115	125816697			
Tributylphosphate	1096188	LCS	475	1000	ug/L	47.5	0.100 - 115	125816698			
Tributylphosphate	1096188	LCS Dup	535	1000	ug/L	53.5	0.100 - 115	125816699			
Triphenylphosphate	1096188	Blank	301	1000	ug/L	30.1	0.100 - 115	125816697			
Triphenylphosphate	1096188	LCS	475	1000	ug/L	47.5	0.100 - 115	125816698			
Triphenylphosphate	1096188	LCS Dup	539	1000	ug/L	53.9	0.100 - 115	125816699			
Analytical Set	1097721										EPA 614
				В	lank						
Parameter Parame	PrepSet	Reading	MDL	MQL	Units			File			

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125816725

Azinphos-methyl (Guthion)

50.0

41.4

1096188 ND

QUALITY CONTROL

SPL The Science of Sure

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Eurofins Test America Houston Bethany A McDaniel 4145 Greenbriar Drive Stafford, TX 77477

				ВІ	ank						
<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File			
Demeton	1096188	ND	31.9	50.0	ug/L			125816725			
Diazinon	1096188	ND	19.7	50.0	ug/L			125816725			
Malathion	1096188	ND	24.8	50.0	ug/L			125816725			
Parathion, ethyl	1096188	ND	23.9	50.0	ug/L			125816725			
Parathion, methyl	1096188	ND	27.4	50.0	ug/L			125816725			
				c	cv						
<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File			
Azinphos-methyl (Guthion)		1020	1000	ug/L	102	37.5 - 164		125816724			
Azinphos-methyl (Guthion)		1850	1000	ug/L	185	37.5 - 164	*	125816732			
Azinphos-methyl (Guthion)		1570	1000	ug/L	157	37.5 - 164		125816739			
Demeton		935	1000	ug/L	93.5	58.6 - 150		125816724			
Demeton		1300	1000	ug/L	130	58.6 - 150		125816732			
Demeton		1150	1000	ug/L	115	58.6 - 150		125816739			
Diazinon		931	1000	ug/L	93.1	65.4 - 138		125816724			
Diazinon		1120	1000	ug/L	112	65.4 - 138		125816732			
Diazinon		1010	1000	ug/L	101	65.4 - 138		125816739			
Malathion		1010	1000	ug/L	101	49.5 - 160		125816724			
Malathion		1220	1000	ug/L	122	49.5 - 160		125816732			
Malathion		1060	1000	ug/L	106	49.5 - 160		125816739			
Parathion, ethyl		1000	1000	ug/L	100	56.0 - 142		125816724			
Parathion, ethyl		1250	1000	ug/L	125	56.0 - 142		125816732			
Parathion, ethyl		1000	1000	ug/L	100	56.0 - 142		125816739			
Parathion, methyl		1000	1000	ug/L	100	12.6 - 194		125816724			
Parathion, methyl		1350	1000	ug/L	135	12.6 - 194		125816732			
Parathion, methyl		1010	1000	ug/L	101	12.6 - 194		125816739			
				LCS	5 Dup						
<u>Parameter</u>	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Azinphos-methyl (Guthion)	1096188	587	677		1000	0.100 - 155	58.7	67.7	ug/L	14.2	30.0
Demeton	1096188	261	349		1000	0.100 - 109	26.1	34.9	ug/L	28.9	30.0
Diazinon	1096188	424	470		1000	0.100 - 125	42.4	47.0	ug/L	10.3	30.0
Malathion	1096188	496	558		1000	0.100 - 130	49.6	55.8	ug/L	11.8	30.0
Parathion, ethyl	1096188 1096188	491 514	561 598		1000 1000	0.100 - 122 0.100 - 131	49.1	56.1 59.8	ug/L	13.3	30.0
Parathion, methyl	1090188	314	398	Curr		0.100 - 131	31.4	39.8	ug/L	15.1	30.0
P	<i>a t</i>	T.	D 1'		ogate	D 0/	T 1 1 0/	F.7			
<u>Parameter</u>	Sample	Type	Reading	Known	Units	Recover%	Limits%	File			
Tributylphosphate		CCV	1000	2000	ug/L	50.0	0.100 - 106	125816724			
Tributylphosphate		CCV	1120	2000	ug/L	56.0 52.0	0.100 - 106	125816732 125816739			
Triphenylphosphate		CCV	1040 999	2000	ug/L	52.0 50.0	0.100 - 106 0.100 - 172				
Triphenylphosphate Triphenylphosphate		CCV	1130	2000 2000	ug/L ug/L	50.0 56.5	0.100 - 172 0.100 - 172	125816724 125816732			
Triphenylphosphate Triphenylphosphate		CCV	1220	2000	ug/L ug/L	61.0	0.100 - 172	125816732			
Tributylphosphate Tributylphosphate	1096188	Blank	288	2000	ug/L ug/L	14.4	0.100 - 172	125816725			
Tributylphosphate Tributylphosphate	1096188	LCS	475	2000	ug/L ug/L	23.8	0.100 - 106	125816726			
1110 at J ipiloopilate	1070100	203	710	2000	 .	23.0	J.100 - 100	12010120			



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QUALITY CONTROL



Page 3 of 3

Project 1084891

Printed 01/08/2024

TABM-G

Eurofins Test America Houston Bethany A McDaniel 4145 Greenbriar Drive Stafford, TX 77477

Surrogate

<u>Parameter</u>	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Tributylphosphate	1096188	LCS Dup	535	2000	ug/L	26.8	0.100 - 106	125816727
Triphenylphosphate	1096188	Blank	301	2000	ug/L	15.0	0.100 - 172	125816725
Triphenylphosphate	1096188	LCS	475	2000	ug/L	23.8	0.100 - 172	125816726
Triphenylphosphate	1096188	LCS Dup	539	2000	ug/L	27.0	0.100 - 172	125816727
Tributylphosphate	2257739	Unknown	0.204	1.97	ug/L	10.4	0.100 - 106	125816728
Triphenylphosphate	2257739	Unknown	0.217	1.97	ug/L	11.0	0.100 - 172	125816728
Tributylphosphate	2257740	Unknown	0.528	1.95	ug/L	27.1	0.100 - 106	125816729
Triphenylphosphate	2257740	Unknown	0.521	1.95	ug/L	26.7	0.100 - 172	125816729

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.)



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Ver: 06/08/2021

Custody Seals Intact: Custody Seal No.:
Δ Yes Δ No

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Eurofins Houston	* 15																	Ď
4145 Greenbriar Dr	. (Chain d	of Custoo	ly Re	eco	rd					\mathbb{N}^2	7				Á	🤔 eurofins	Environment Tool 6
Stafford, TX 77477 Phone: 281-240-4200				•							25.5							Environment lesting
Client Information (Sub Contract Lab)	Sampler:		-=	Lab PM Richte	i: er, Tra	vis W	,				Carr	rier Tra	icking N	lo(s):			COC No: 860-82010.1	Environment Testing
Client Contact: Shipping/Receiving	Phone:			E-Mail:	.Richt		t euro	fineus	com			e of Or xas	rigin:				Page: Page 1 of 1	
Company:				14	ccredita	ations I	Require				167	403					Job #:	
Ana-Lab Corporation					NELAF	2 - Te	xas										860-63765-1	
Address: 2600 Dudley Rd,	Due Date Request 12/22/2023	9 a :							Analy	sis R	eque	sted	l				Preservation Cod	M - Hexane
City:	TAT Requested (d	ıys):		\neg	4 3	П									Т	- 2	B - NaOH	N - None O - AsNaO2
Kilgore State, Zip:				ľ						1					1		C - Zn Acetate D - Nitric Acid	P - Na2O4S Q - Na2SO3
TX, 75662						li	•						lΙ	1			E - NaHSO4 F - MeOH	R - Na2S2O3
Phone:	PO #:			Ŀ	ું ેકુ	ايج	ğ	ļ								Ŀ	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email:	WO #:			-	iple (Yes or No (Yes or No)	Cides	SUB (Hexachlorophene)/ Hexachlorophene						1 1				I - Ice	U - Acetone V - MCAA
Project Name:	Project#:				or No)	des	ex ac		1							2	J - DI Water K - EDTA	W - pH 4-5 Y - Trizma
General Project	86003682					es té	*				-	1				containers	L - EDA	Z - other (specify)
Site:	ssow#:					us, P	툂	-			1	1	1			-8.	Other:	
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Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab) вт-ты			8 €	8	_			4	_	Н	\perp	_	Ě	Special In	structions/Note:
		12:00	Preservation (¥Χ	-	-	-	╁	Н.		1	₩	+	4	X	See Attached Instr	nuctions
Central Plant Influent 24HR Comp (860-63765-1)	12/13/23	Central 23:59	W	ater	\perp	×	×	Щ.	1)3	90		3 C	1			.2		
Central Plant Effluent 24HR Comp (860-63765-2)	12/13/23	23:59 Central	W	ater		X	×	⊥`	1		72	46	\mathbb{P}			2	See Attached Instr	uctions
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Note: Since laboratory accreditations are subject to change, Eurofins Enviro laboratory does not currently maintain accreditation in the State of Origin lis accreditation status should be brought to Eurofins Environment Testing Sor	ted above for analysis/tests	/matrix being a	nalyzed, the samples	must be s	shipped	back to	o the Er	urofins	Environ	ment Tes	sting So	uth Ce	ntral, Li	LC labor	atory or	rother	r instructions will be pr	rovided. Any changes to
Possible Hazard Identification			***************************************														ed longer than 1	
Unconfirmed					[\Box_{R}	eturn	To Cli	ent		Disp	osal i	By Lai	b	_		hive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliver	able Rank:	2		Spe	ecial 1	Instruc	ctions	/QC R	equiren	nents:							
Empty Kit Relinquisfied by:		Date:			Time:		\mathcal{T}					Meti	hod of S	Shipmen	t:			
Relinquished by:	Date/Time:	775	Comp	any		Recei	ed by	d	le			•		Date/Tir	ne:			Company
Relinquished by:	Daglery in the 1	1731	130 Comp	any		Recei	iver by:	7	J	Jenn	ifer G	arrest	i CDI	Date/Tir	77/	1/0	111311	Sompany
Dallas sistes de la serie de l	Hotortina (را س	Comp	300		Para.	inad bur	_		2 21111	U	ari Of	VEL	Date/fir	ne:	·	41-16	Company

Cooler Temperature(s) °C and Other Remarks:

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2 of 6

ICOC No: 860-82010

Containers

Count 4

<u>Container Type</u> Amber Glass 1 liter - unpreserved

<u>Preservative</u> None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1, 2	SUBCONTRACT	SUB (Hexachlorophene)/	Hexachlorophene
		Hexachlorophene	
1, 2	SUBCONTRACT	SUB (Organophosphorus, Pesticides)/	Guthion, Diazinon, Malathion, Chlorpyrifos, Parathion, Total Demeton
		Organophosphorus, Pesticides	

1084891 CoC Print Group 001 of 001

3 of 6





















Report Page 13 of 16

Shipping Order Form

eurofins

Environment Testing



Eurofins Houston 4145 Greenbriar Dr Stafford, TX 77477 Phone (281) 240-4200

Shipping Order ID: 24849

Ship Via: FedEx Priority Overnight

Due On: 12/18/2023 11:59:00PM

1084891 CoC Print Group 001 of 001

Ship To Information Project Manager: Company Name: Ana-Lab Corporation Attention: Shipping/Receiving Address 1: 2600 Dudley Rd Address 2: Address 3: City: Kilgore State: TΧ Zip: 75662 Phone #: Project Ref:

Notes to Bottle/Shipping Department

Shipping Method: Standard packing ☑ Ready to Fill □ Preprinted COC Number of COC Copies Seals on Bottle

☐ Seals on Coolers □ Priority

Return Shipment Labels □ Prepaid Return **Eurofins Houston** ☐ Short Hold Times ☑ Temperature Control

□Rush

Min Due Date: 12/22/2023 11:59:00PM

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

1/16/2024

1084891 CoC Print Group 001 of 001

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

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Bottle Order Information













Order Completion Information

Creator: Nicanor Jimenez Filled by:

Sent Date: Sent Via: Tracking #:

Bottle Order #: Request From Client: 12/18/2023

Date Order Posted:

Order Status: Ready To Process

Prepared By:

Bottle Order:

Deliver By Date: 12/18/2023 11:59:00PM

Lab Project Number:

PWSID:

Sets Bottles/Set Oty. Bottle Type Description	*Preservative	Method ≱****	Matrix Sample	Type V 👡 3 Comm	ents : Lotte and the second
Notes to Field Staff:	Health and Safety Not	es: >	AMAS.	7.37.51 × 3	
	Preservative	Comment			

Relinguished By	Company	Date	Time	Received By	Company	Seal #:
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Relinquished By	Company	Date	Time	Received By	Company	Seal#:
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						Seal#:

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

1084891 CoC Print Group 001 of 001

12/18/23, 4:10 PM

FedEx Ship Manager - Print Your Label(s)



After printing this label:

Use the 'Print' button on this page to print your label to your laser or inkjet printer.
 Fold the printed page along the horizontal line.
 Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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481 Newburyport Avenue Altamonte Springs, FL 32701 Phone: 407-339-5984 Fax: 407-260-6110

Chain of Custody Record



💸 eurofins

1 Hollo: 101 000 0004 1 dx. 401 200-0110																			
Client Information (Sub Contract Lab)	Sampler:			Ric		r, Tra	Travis W				Ca	Carrier Tracking No(s):					COC No: 670-21063.1		
Client Contact: Shipping/Receiving	Phone:				lail: avis.l	Richt	ter@	et.euro	finsus	.com			ite of Oi	igin:				Page: Page 1 of 1	
Company: Eurofins Environment Testing Southeast,							tations P - Te	Require exas	d (See	note):								Job #: 860-63765-1	
Address: 3355 McLemore Drive,	Due Date Request 12/27/2023	ed:			Ť	Analysis Requested								Preservation Cod	des: M - Hexane				
City: Pensacola		NT Requested (days):				The state of the s					3.3 .	s Requested						A - HCL B - NaOH C - Zn Acetate	м - нехапе N - None O - AsNaO2
State, Zip: FL, 32514																		D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3 R - Na2S2O3
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:				┨		2											F - MeOH G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email:	WO #:				- 	<u>(</u>	Low Level Mercury									İ		l - Ice J - Di Water	U - Acetone V - MCAA W - pH 4-5
Project Name: Central Plant 24HR Comps	Project #: 86003682				<u>ر</u> ه:	٥	[[[]]	eve						ļ		ainers	K - EDTA Y	Y - Trizma Z - other (specify)	
Site:	SSOW#:				ample	Š	p Low								of cont	Other:	2 - Other (Specify)		
		Sample	Sample Type (C=comp,	Matrix (w=water, S=solid, O=waste/oil.	Id Filtered S	Perform MS/MSD (Yes or No)	1631E/1631E_Prep										Number		
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab)	BT=Tissue, A=A		اقا	<u>5</u>	<u> </u>	_	1						_	Total	Special In	structions/Note:
		12:00	Preserva	tion Code:	<u> </u>	\forall	-		\bot	-			_			-	X		
Central Plant Influent 24HR Comp (860-63765-1)	12/13/23	Central		Water	┸		X		\perp					Ш			2		
Central Plant Effluent 24HR Comp (860-63765-2)	12/13/23	23:59 Central		Water			х										2		
Central Plant Influent LLHg FB (860-63765-3)	12/13/23	12:00 Central		Water			x										2		
Central Plant Effluent LLHg FB (860-63765-4)	12/13/23	23:59 Central		Water		Ш	x										2		
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Note: Since laboratory accreditations are subject to change, Eurofins Environment does not currently maintain accreditation in the State of Origin listed above for ana status should be brought to Eurofins Environment Testing Southeast, LLC attention	lysis/tests/matrix bei	ng analvzed, th	e samples mus	st be shipped	back	to the	• Eurof	fins Envir	ronmen	t Testin	a Sout	heast I I	C labor	atory o	or other in	nstructio	nns wi	ill be provided. Any ch	hanges to accreditation
Possible Hazard Identification						San	_				nay b	e asse	essed	if sar	mples			ed longer than 1	month)
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliver	able Rank: 2	<u> </u>		-	Spe		<i>eturn T</i> Instruct			quire	Disp	osal E	ly Ļal	<u> </u>		Arch	nive For	Months
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Custody Seals Intact: Custody Seal No.: Δ Yes Δ No							Coole	r Tempe	rature(s	s) °C an	d Othe	Remar	ks:	0	OJ				













Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Bio Chem Lab, Inc Job Number: 860-63765-1

Login Number: 63765 List Source: Eurofins Houston

List Number: 1

Creator: Jimenez, Nicanor

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Login Sample Receipt Checklist

Client: Bio Chem Lab, Inc Job Number: 860-63765-1

List Source: Eurofins Pensacola
List Number: 2
List Creation: 12/28/23 04:13 PM

Creator: Roberts. Alexis J

Creator: Roberts, Alexis J		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

N/A

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Residual Chlorine Checked.

12

14

ANALYTICAL REPORT

PREPARED FOR

Attn: Andy Janek Bio Chem Lab, Inc 4751 Tokio Rd West, Texas 76691

Generated 1/17/2024 10:55:43 PM

JOB DESCRIPTION

Central Plant

JOB NUMBER

860-63767-1

Eurofins Houston 4145 Greenbriar Dr Stafford TX 77477

Eurofins Houston

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated 1/17/2024 10:55:43 PM

Authorized for release by Travis Richter, Project Manager Travis.Richter@et.eurofinsus.com (281)794-7216

Client: Bio Chem Lab, Inc Project/Site: Central Plant Laboratory Job ID: 860-63767-1

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Definitions/Glossary

Client: Bio Chem Lab, Inc

Job ID: 860-63767-1

Project/Site: Central Plant

Qualifiers

GC/MS VOA

 Qualifier
 Qualifier Description

 H
 Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 Sample was received and analyzed past holding time. This does not meet regulatory requirements.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U Indicates the analyte was analyzed for but not detected.

General Chemistry

 Qualifier
 Qualifier Description

 F1
 MS and/or MSD recovery exceeds control limits.

H Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Eisted under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Houston

Page 4 of 31 1/17/2024

Case Narrative

Client: Bio Chem Lab, Inc Project: Central Plant

Job ID: 860-63767-1 Eurofins Houston

Job Narrative 860-63767-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/18/2023 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

GC/MS VOA

Method 624.1: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Central Plant Influent Composite (860-63767-5) and Central Plant Effluent Composite (860-63767-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 335.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-137038 and analytical batch 860-138197 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 4500_CN_G_NonAm: The following samples were analyzed outside of analytical holding time due to analyst error: Central Plant Influent Composite (860-63767-5) and Central Plant Effluent Composite (860-63767-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 860-63767-1

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Detection Summary

Client: Bio Chem Lab, Inc Job ID: 860-63767-1

Project/Site: Central Plant

Client Sample ID: Central Plant Influent Composite

Lab Sample ID: 860-63767-5

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chloroform	0.00351	0.00100	0.000464	mg/L		624.1	Total/NA
Ethylbenzene	0.00262	0.00100	0.000385	mg/L	1	624.1	Total/NA
Toluene	0.0185	0.00100	0.000475	mg/L	1	624.1	Total/NA
Phenols, Total	0.0513	0.0100	0.00580	mg/L	1	420.4	Total/NA
Cyanide, Non-amenable	0.0116 H	0.00500	0.00233	mg/L	1	4500 CN G NonAm	Total/NA

Client Sample ID: Central Plant Effluent Composite

Lab Sample ID: 860-63767-10

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Bromodichloromethane	0.0108	0.00100	0.000552	mg/L	1	624.1	Total/NA
Chloroform	0.0272	0.00100	0.000464	mg/L	1	624.1	Total/NA
Dibromochloromethane	0.00472 J	0.00500	0.000547	mg/L	1	624.1	Total/NA
Cyanide, Total	0.00595	0.00500	0.00200	mg/L	1	335.4	Total/NA
Cyanide, Amenable	0.00595	0.00500	0.00233	mg/L	1	SM 4500 CN G	Total/NA

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14

15

Client Sample Results

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Client Sample ID: Central Plant Influent Composite

Lab Sample ID: 860-63767-5

Date Collected: 12/13/23 00:00 **Matrix: Water** Date Received: 12/18/23 13:27

Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			12/18/23 17:24	1
1,1,2,2-Tetrachloroethane	< 0.000470	U	0.00100	0.000470	mg/L			12/18/23 17:24	1
1,1,2-Trichloroethane	< 0.000411	U	0.00100	0.000411	mg/L			12/18/23 17:24	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			12/18/23 17:24	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			12/18/23 17:24	1
1,2-Dichloroethane	< 0.000372	U	0.00100	0.000372	mg/L			12/18/23 17:24	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			12/18/23 17:24	1
2-Chloroethyl vinyl ether	< 0.000753	U	0.00500	0.000753	mg/L			12/18/23 17:24	1
Acrolein	<0.0111	U H H3	0.0500	0.0111	mg/L			12/18/23 17:24	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			12/18/23 17:24	1
Benzene	< 0.000460	U	0.00100	0.000460	mg/L			12/18/23 17:24	1
Bromodichloromethane	< 0.000552	U	0.00100	0.000552	mg/L			12/18/23 17:24	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			12/18/23 17:24	1
Bromomethane	< 0.00142	U	0.00500	0.00142	mg/L			12/18/23 17:24	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			12/18/23 17:24	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			12/18/23 17:24	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			12/18/23 17:24	1
Chloroform	0.00351		0.00100	0.000464	mg/L			12/18/23 17:24	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			12/18/23 17:24	1
cis-1,3-Dichloropropene	< 0.00107	U	0.00500	0.00107	mg/L			12/18/23 17:24	1
Dibromochloromethane	< 0.000547	U	0.00500	0.000547	mg/L			12/18/23 17:24	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			12/18/23 17:24	1
Ethylbenzene	0.00262		0.00100	0.000385	mg/L			12/18/23 17:24	1
Methylene Chloride	< 0.00173	U	0.00500	0.00173	mg/L			12/18/23 17:24	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			12/18/23 17:24	1
1,2-Dichlorobenzene	< 0.000429	U	0.00100	0.000429	mg/L			12/18/23 17:24	1
Toluene	0.0185		0.00100	0.000475	mg/L			12/18/23 17:24	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			12/18/23 17:24	1
trans-1,3-Dichloropropene	< 0.00127	U	0.00500	0.00127	mg/L			12/18/23 17:24	1
Trichloroethene	< 0.00150	U	0.00500	0.00150	mg/L			12/18/23 17:24	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			12/18/23 17:24	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			12/18/23 17:24	1
1,3-Dichlorobenzene	< 0.000413	U	0.00100	0.000413	mg/L			12/18/23 17:24	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			12/18/23 17:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		63 - 144			-		12/18/23 17:24	1
4-Bromofluorobenzene (Surr)	101		74 - 124					12/18/23 17:24	1
Dibromofluoromethane (Surr)	101		75 - 131					12/18/23 17:24	1
Toluene-d8 (Surr)	101		80 - 120					12/18/23 17:24	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (EPA 335.4)	<0.00200	U F1	0.00500	0.00200	mg/L		12/27/23 14:54	12/27/23 18:15	1
Phenols, Total (EPA 420.4)	0.0513		0.0100	0.00580	mg/L			12/20/23 18:08	1
Cyanide, Non-amenable (SM 4500 CN G NonAm)	0.0116	Н	0.00500	0.00233	mg/L		12/28/23 12:33	12/28/23 18:01	1
Cyanide, Amenable (SM 4500 CN G)	< 0.00233	U	0.00500	0.00233	mg/L			12/29/23 21:34	1

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Client Sample Results

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Client Sample ID: Central Plant Effluent Composite

Lab Sample ID: 860-63767-10

Date Collected: 12/13/23 00:00 **Matrix: Water** Date Received: 12/18/23 13:27

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			12/18/23 17:03	
1,1,2,2-Tetrachloroethane	< 0.000470	U	0.00100	0.000470	mg/L			12/18/23 17:03	
1,1,2-Trichloroethane	< 0.000411	U	0.00100	0.000411	mg/L			12/18/23 17:03	
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			12/18/23 17:03	
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			12/18/23 17:03	
1,2-Dichloroethane	< 0.000372	U	0.00100	0.000372	mg/L			12/18/23 17:03	
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			12/18/23 17:03	
2-Chloroethyl vinyl ether	< 0.000753	U	0.00500	0.000753	mg/L			12/18/23 17:03	
Acrolein	<0.0111	U H H3	0.0500	0.0111	mg/L			12/18/23 17:03	
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			12/18/23 17:03	
Benzene	< 0.000460	U	0.00100	0.000460	mg/L			12/18/23 17:03	
Bromodichloromethane	0.0108		0.00100	0.000552	mg/L			12/18/23 17:03	
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			12/18/23 17:03	
Bromomethane	< 0.00142	U	0.00500	0.00142	mg/L			12/18/23 17:03	
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			12/18/23 17:03	
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			12/18/23 17:03	
Chloroethane	<0.00198	U	0.0100	0.00198	•			12/18/23 17:03	
Chloroform	0.0272		0.00100	0.000464	mg/L			12/18/23 17:03	
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			12/18/23 17:03	
cis-1,3-Dichloropropene	< 0.00107	U	0.00500	0.00107	_			12/18/23 17:03	
Dibromochloromethane	0.00472	J	0.00500	0.000547	mg/L			12/18/23 17:03	
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			12/18/23 17:03	
Ethylbenzene	< 0.000385	U	0.00100	0.000385	-			12/18/23 17:03	
Methylene Chloride	< 0.00173	U	0.00500	0.00173	mg/L			12/18/23 17:03	
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			12/18/23 17:03	
1,2-Dichlorobenzene	< 0.000429	U	0.00100	0.000429	mg/L			12/18/23 17:03	
Toluene	< 0.000475	U	0.00100	0.000475	mg/L			12/18/23 17:03	
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368				12/18/23 17:03	
trans-1,3-Dichloropropene	< 0.00127	U	0.00500	0.00127	Ü			12/18/23 17:03	
Trichloroethene	< 0.00150	U	0.00500	0.00150	_			12/18/23 17:03	
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560				12/18/23 17:03	
Vinyl chloride	<0.000428	U	0.00200	0.000428	-			12/18/23 17:03	
1,3-Dichlorobenzene	< 0.000413	U	0.00100	0.000413	ŭ			12/18/23 17:03	
1,4-Dichlorobenzene	<0.000449		0.00100	0.000449				12/18/23 17:03	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	101		63 - 144			•		12/18/23 17:03	
4-Bromofluorobenzene (Surr)	103		74 - 124					12/18/23 17:03	
Dibromofluoromethane (Surr)	101		75 - 131					12/18/23 17:03	
Toluene-d8 (Surr)	102		80 - 120					12/18/23 17:03	

ı	General Chemistry									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Cyanide, Total (EPA 335.4)	0.00595		0.00500	0.00200	mg/L		12/27/23 14:54	12/27/23 18:18	1
	Phenols, Total (EPA 420.4)	<0.00580	U	0.0100	0.00580	mg/L			12/20/23 18:11	1
	Cyanide, Non-amenable (SM 4500 CN G NonAm)	<0.00233	UH	0.00500	0.00233	mg/L		12/28/23 12:33	12/28/23 18:02	1
	Cyanide, Amenable (SM 4500 CN G)	0.00595		0.00500	0.00233	mg/L			12/29/23 21:34	1

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Surrogate Summary

Client: Bio Chem Lab, Inc
Project/Site: Central Plant

Job ID: 860-63767-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

		Percent Surrogate Recov				
		DCA	BFB	DBFM	TOL	
Lab Sample ID	Client Sample ID	(63-144)	(74-124)	(75-131)	(80-120)	
860-63767-5	Central Plant Influent Composite	101	101	101	101	
860-63767-10	Central Plant Effluent	101	103	101	102	
	Composite					
LCS 860-135580/15	Lab Control Sample	98	99	102	101	
LCSD 860-135580/16	Lab Control Sample Dup	93	99	100	100	
MB 860-135580/22	Method Blank	101	100	103	101	

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

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QC Sample Results

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Method: 624.1 - Volatile Organic Compounds (GC/MS)

MB MB

Lab Sample ID: MB 860-135580/22

Matrix: Water

Analysis Batch: 135580

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			12/18/23 13:38	1
1,1,2,2-Tetrachloroethane	< 0.000470	U	0.00100	0.000470	mg/L			12/18/23 13:38	1
1,1,2-Trichloroethane	< 0.000411	U	0.00100	0.000411	mg/L			12/18/23 13:38	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			12/18/23 13:38	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			12/18/23 13:38	1
1,2-Dichloroethane	< 0.000372	U	0.00100	0.000372	mg/L			12/18/23 13:38	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			12/18/23 13:38	1
2-Chloroethyl vinyl ether	< 0.000753	U	0.00500	0.000753	mg/L			12/18/23 13:38	1
Acrolein	<0.0111	U	0.0500	0.0111	mg/L			12/18/23 13:38	1
Acrylonitrile	<0.0143	U	0.0500	0.0143	mg/L			12/18/23 13:38	1
Benzene	< 0.000460	U	0.00100	0.000460	mg/L			12/18/23 13:38	1
Bromodichloromethane	< 0.000552	U	0.00100	0.000552	mg/L			12/18/23 13:38	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			12/18/23 13:38	1
Bromomethane	< 0.00142	U	0.00500	0.00142	mg/L			12/18/23 13:38	1
Carbon tetrachloride	< 0.000896	U	0.00500	0.000896	mg/L			12/18/23 13:38	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			12/18/23 13:38	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			12/18/23 13:38	1
Chloroform	< 0.000464	U	0.00100	0.000464	mg/L			12/18/23 13:38	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			12/18/23 13:38	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			12/18/23 13:38	1
Dibromochloromethane	< 0.000547	U	0.00500	0.000547	mg/L			12/18/23 13:38	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			12/18/23 13:38	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			12/18/23 13:38	1
Methylene Chloride	< 0.00173	U	0.00500	0.00173	mg/L			12/18/23 13:38	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			12/18/23 13:38	1
1,2-Dichlorobenzene	< 0.000429	U	0.00100	0.000429	mg/L			12/18/23 13:38	1
Toluene	< 0.000475	U	0.00100	0.000475	mg/L			12/18/23 13:38	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			12/18/23 13:38	1
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			12/18/23 13:38	1
Trichloroethene	< 0.00150	U	0.00500	0.00150	mg/L			12/18/23 13:38	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			12/18/23 13:38	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			12/18/23 13:38	1
1,3-Dichlorobenzene	< 0.000413	U	0.00100	0.000413	mg/L			12/18/23 13:38	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			12/18/23 13:38	1

	IVIB IVIB				
Surrogate	%Recovery Qual	lifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101	63 - 144		12/18/23 13:38	1
4-Bromofluorobenzene (Surr)	100	74 - 124	1	12/18/23 13:38	1
Dibromofluoromethane (Surr)	103	75 - 131	1	12/18/23 13:38	1

80 - 120

101

Lab Sample ID: LCS 860-135580/15

Matrix: Water

Toluene-d8 (Surr)

Analysis Batch: 135580

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1-Trichloroethane	0.0500	0.05149		mg/L		103	70 - 130	
1,1,2,2-Tetrachloroethane	0.0500	0.05022		mg/L		100	74 - 125	

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Prep Type: Total/NA

12/18/23 13:38

Client Sample ID: Lab Control Sample

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QC Sample Results

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-135580/15

Matrix: Water

Analysis Batch: 135580

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

•	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,2-Trichloroethane	0.0500	0.05355		mg/L		107	70 - 130	-
1,1-Dichloroethane	0.0500	0.05347		mg/L		107	70 - 130	
1,1-Dichloroethene	0.0500	0.05385		mg/L		108	50 - 150	
1,2-Dichloroethane	0.0500	0.05158		mg/L		103	72 - 130	
1,2-Dichloropropane	0.0500	0.05278		mg/L		106	74 - 125	

2-Chloroethyl vinyl ether 0.0500 0.05250 mg/L 105 50 - 150 Acrolein 0.250 0.2604 mg/L 104 60 - 140Acrylonitrile 0.500 0.5084 mg/L 102 60 - 1400.0500 Benzene 0.05088 mg/L 102 75 - 125 104 Bromodichloromethane 0.0500 0.05213 mg/L 75 - 125

108 Bromoform 0.0500 0.05406 mg/L 70 - 130 Bromomethane 0.0500 0.05106 102 60 - 140 mg/L Carbon tetrachloride 0.0500 0.04827 97 70 - 130 mg/L 104 Chlorobenzene 0.0500 0.05176 mg/L 65 - 135 Chloroethane 0.0500 0.04803 96 60 - 140 mg/L Chloroform 0.0500 0.05107 mg/L 102 70 - 121

Chloromethane 0.0500 0.05022 100 60 - 140 mg/L cis-1,3-Dichloropropene 0.0500 104 74 - 125 0.05203 mg/L Dibromochloromethane 0.0500 0.05406 mg/L 108 73 - 125 Dichlorodifluoromethane 0.0500 0.04825 96 50 - 150 mg/L Ethylbenzene 0.0500 0.05154 mg/L 103 75 - 125 Methylene Chloride 0.0500 0.04737 mg/L 95 71 - 125

Tetrachloroethene 0.0500 0.05109 mg/L 102 71 - 125 1,2-Dichlorobenzene 0.0500 75 - 125 0.05272 mg/L 105 103 Toluene 0.0500 0.05152 70 - 130 mg/L trans-1,2-Dichloroethene 0.0500 0.05363 107 75 - 125 mg/L 106 trans-1,3-Dichloropropene 0.0500 0.05318 mg/L 66 - 125

Trichloroethene 0.0500 0.05373 mg/L 107 75 - 135 Trichlorofluoromethane 0.0500 0.04491 mg/L 90 60 - 1400.04909 Vinyl chloride 0.0500 mg/L 98 60 - 1400.0500 0.05294 mg/L 106 75 - 125 1,3-Dichlorobenzene

0.0500

75 - 131

0.0500

0.05214

mg/L

mg/L

104

Client Sample ID: Lab Control Sample Dup

106

70 - 130

75 - 125

LCS LCS %Recovery Qualifier Limits Surrogate 1,2-Dichloroethane-d4 (Surr) 98 63 - 144 4-Bromofluorobenzene (Surr) 99 74 - 124

102

Toluene-d8 (Surr) 101 80 - 120

Analysis Batch: 135580

1.1-Dichloroethane

Dibromofluoromethane (Surr)

1,4-Dichlorobenzene

Lab Sample ID: LCSD 860-135580/16 **Matrix: Water**

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1-Trichloroethane	0.0500	0.05233		mg/L		105	70 - 130	NaN	25
1,1,2,2-Tetrachloroethane	0.0500	0.04871		mg/L		97	74 - 125	NaN	25
1,1,2-Trichloroethane	0.0500	0.05300		mg/L		106	70 - 130	NaN	25

0.05305

Prep Type: Total/NA

NaN

25

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-135580/16

Matrix: Water

Analysis Batch: 135580

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Allalysis Datell. 100000	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	0.0500	0.05388		mg/L		108	50 - 150	NaN	25
1,2-Dichloroethane	0.0500	0.05165		mg/L		103	72 - 130	NaN	25
1,2-Dichloropropane	0.0500	0.05210		mg/L		104	74 - 125	NaN	25
2-Chloroethyl vinyl ether	0.0500	0.05196		mg/L		104	50 - 150	NaN	25
Acrolein	0.250	0.2661		mg/L		106	60 - 140	NaN	25
Acrylonitrile	0.500	0.5054		mg/L		101	60 - 140	NaN	25
Benzene	0.0500	0.05020		mg/L		100	75 - 125	NaN	25
Bromodichloromethane	0.0500	0.05148		mg/L		103	75 - 125	NaN	25
Bromoform	0.0500	0.05337		mg/L		107	70 - 130	NaN	25
Bromomethane	0.0500	0.05008		mg/L		100	60 - 140	NaN	25
Carbon tetrachloride	0.0500	0.04995		mg/L		100	70 - 130	NaN	25
Chlorobenzene	0.0500	0.05054		mg/L		101	65 - 135	NaN	25
Chloroethane	0.0500	0.04741		mg/L		95	60 - 140	NaN	25
Chloroform	0.0500	0.05119		mg/L		102	70 - 121	NaN	25
Chloromethane	0.0500	0.04884		mg/L		98	60 - 140	NaN	25
cis-1,3-Dichloropropene	0.0500	0.05222		mg/L		104	74 - 125	NaN	25
Dibromochloromethane	0.0500	0.05304		mg/L		106	73 - 125	NaN	25
Dichlorodifluoromethane	0.0500	0.04819		mg/L		96	50 - 150	NaN	25
Ethylbenzene	0.0500	0.05074		mg/L		101	75 - 125	NaN	25
Methylene Chloride	0.0500	0.04665		mg/L		93	71 - 125	NaN	25
Tetrachloroethene	0.0500	0.05119		mg/L		102	71 - 125	NaN	25
1,2-Dichlorobenzene	0.0500	0.05059		mg/L		101	75 - 125	NaN	25
Toluene	0.0500	0.05121		mg/L		102	70 - 130	NaN	25
trans-1,2-Dichloroethene	0.0500	0.05223		mg/L		104	75 - 125	NaN	25
trans-1,3-Dichloropropene	0.0500	0.05278		mg/L		106	66 - 125	NaN	25
Trichloroethene	0.0500	0.05290		mg/L		106	75 - 135	NaN	25
Trichlorofluoromethane	0.0500	0.04706		mg/L		94	60 - 140	NaN	25
Vinyl chloride	0.0500	0.04904		mg/L		98	60 - 140	NaN	25
1,3-Dichlorobenzene	0.0500	0.05101		mg/L		102	75 - 125	NaN	25
1,4-Dichlorobenzene	0.0500	0.05066		mg/L		101	75 - 125	NaN	25

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		63 - 144
4-Bromofluorobenzene (Surr)	99		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 860-137038/31-A

Matrix: Water

Analysis Batch: 138197

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00200	U	0.00500	0.00200	mg/L		12/27/23 14:54	12/27/23 18:26	1

Prep Type: Total/NA

Client Sample ID: Method Blank

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: MB 860-137038/4-A

Matrix: Water

Analysis Batch: 138197

MB MB

Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte Prepared 0.00500 12/27/23 14:54 12/27/23 18:01 Cyanide, Total <0.00200 U 0.00200 mg/L

LCS LCS

LCSD LCSD

LLCS LLCS

MS MS

MSD MSD

0.06698 F1

Result Qualifier

0.06165 F1

Result Qualifier

Result Qualifier

Result Qualifier

0.09874

0.1008

0.003400 J

Result Qualifier

Unit

mg/L

Unit

mg/L

Unit

mg/L

Unit

mg/L

Unit

mg/L

Spike

Added

0.100

Spike

Added

0.100

Spike

Added

0.00500

Spike

Added

0.100

Spike

Added

0.100

Lab Sample ID: LCS 860-137038/5-A

Matrix: Water

Analyte

Cyanide, Total

Analysis Batch: 138197

Lab Sample ID: LCSD 860-137038/33-A

Matrix: Water Analysis Batch: 138197

Analyte

Cyanide, Total

Lab Sample ID: LLCS 860-137038/6-A

Matrix: Water

Analysis Batch: 138197

Analyte

Cyanide, Total

Lab Sample ID: 860-63767-5 MS **Matrix: Water**

Analysis Batch: 138197

Analyte Cyanide, Total

Lab Sample ID: 860-63767-5 MSD **Matrix: Water**

Analysis Batch: 138197

Analyte

Cyanide, Total

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 860-136256/15

Matrix: Water

Analysis Batch: 136256

MR MR

Analyte Phenols, Total Result Qualifier

<0.00580 U

Sample Sample

Sample Sample

<0.00200 U F1

Result Qualifier

<0.00200 U F1

Result Qualifier

RL 0.0100

MDL Unit 0.00580 mg/L

Prepared

Analyzed

12/20/23 17:15

Prep Type: Total/NA

Eurofins Houston

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Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

D %Rec

%Rec

%Rec

Client Sample ID: Central Plant Influent Composite

%Rec

Client Sample ID: Central Plant Influent Composite

%Rec D

67

62

99

Client Sample ID: Lab Control Sample Dup

%Rec

Limits

90 - 110

%Rec

Limits

Client Sample ID: Lab Control Sample

90 - 110

%Rec

Limits

%Rec

Limits

%Rec

Limits

90 - 110

Client Sample ID: Method Blank

90 - 110

50 - 150

Prep Type: Total/NA

Prep Batch: 137038

Prep Type: Total/NA

Prep Batch: 137038

Prep Type: Total/NA

Prep Batch: 137038

Prep Type: Total/NA

Prep Batch: 137038

Prep Type: Total/NA

Prep Batch: 137038

Prep Type: Total/NA

Prep Batch: 137038

RPD

RPD

Limit

Dil Fac

20

RPD

RPD

Limit

1/17/2024

QC Sample Results

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 860-136256/16	Client Sample ID: Lab Control Sample
245 Campio 151 200 000 100200/10	Chone Campio ID: Eas Control Campio

Matrix: Water

Analysis Batch: 136256								
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Phenols, Total	 0.100	0.09300		mg/L		93	90 - 110	

Lab Sample ID: LCSD 860-136256/17 **Client Sample ID: Lab Control Sample Dup Matrix: Water** Prep Type: Total/NA

Analysis Batch: 136256

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phenols, Total	0.100	0.1082		mg/L		108	90 - 110	15	20

Method: 4500 CN G NonAm - Cyanide, Non-amenable

Lab Sample ID: MB 860-138464/55-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 138605

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Non-amenable	<0.00233	U	0.00500	0.00233	mg/L		12/28/23 12:33	12/28/23 17:56	1

Lab Sample ID: LCS 860-138464/56-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 138605 Prep Batch: 138464 LCS LCS Spike %Rec

Analyte Added Result Qualifier Unit D %Rec Limits Cyanide, Non-amenable 0.100 0.09775 mg/L 98 90 - 110

Lab Sample ID: LCSD 860-138464/57-A **Client Sample ID: Lab Control Sample Dup Matrix: Water** Prep Type: Total/NA **Analysis Batch: 138605** Prep Batch: 138464

LCSD LCSD %Rec **RPD** Spike Analyte Added Result Qualifier Unit Limits RPD Limit 90 - 110 Cyanide, Non-amenable 0.100 0.1019 mg/L 102

Prep Type: Total/NA

Prep Batch: 138464

QC Association Summary

Client: Bio Chem Lab, Inc
Project/Site: Central Plant

Job ID: 860-63767-1

GC/MS VOA

Analysis Batch: 135580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
860-63767-5	Central Plant Influent Composite	Total/NA	Water	624.1	
860-63767-10	Central Plant Effluent Composite	Total/NA	Water	624.1	
MB 860-135580/22	Method Blank	Total/NA	Water	624.1	
LCS 860-135580/15	Lab Control Sample	Total/NA	Water	624.1	
LCSD 860-135580/16	Lab Control Sample Dup	Total/NA	Water	624.1	

General Chemistry

Analysis Batch: 135975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63767-5	Central Plant Influent Composite	Total/NA	Water	SM 4500 CN G	
860-63767-10	Central Plant Effluent Composite	Total/NA	Water	SM 4500 CN G	

Analysis Batch: 136256

Lab Sample ID 860-63767-5	Client Sample ID Central Plant Influent Composite	Prep Type Total/NA	Matrix Water	Method 420.4	Prep Batch
860-63767-10	Central Plant Effluent Composite	Total/NA	Water	420.4	
MB 860-136256/15	Method Blank	Total/NA	Water	420.4	
LCS 860-136256/16	Lab Control Sample	Total/NA	Water	420.4	
LCSD 860-136256/17	Lab Control Sample Dup	Total/NA	Water	420.4	

Prep Batch: 137038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63767-5	Central Plant Influent Composite	Total/NA	Water	Distill/CN	
860-63767-10	Central Plant Effluent Composite	Total/NA	Water	Distill/CN	
MB 860-137038/31-A	Method Blank	Total/NA	Water	Distill/CN	
MB 860-137038/4-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 860-137038/5-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 860-137038/33-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
LLCS 860-137038/6-A	Lab Control Sample	Total/NA	Water	Distill/CN	
860-63767-5 MS	Central Plant Influent Composite	Total/NA	Water	Distill/CN	
860-63767-5 MSD	Central Plant Influent Composite	Total/NA	Water	Distill/CN	

Analysis Batch: 138197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63767-5	Central Plant Influent Composite	Total/NA	Water	335.4	137038
860-63767-10	3767-10 Central Plant Effluent Composite		Water	335.4	137038
MB 860-137038/31-A	Method Blank	Total/NA	Water	335.4	137038
MB 860-137038/4-A	Method Blank	Total/NA	Water	335.4	137038
LCS 860-137038/5-A	Lab Control Sample	Total/NA	Water	335.4	137038
LCSD 860-137038/33-A	Lab Control Sample Dup	Total/NA	Water	335.4	137038
LLCS 860-137038/6-A	Lab Control Sample	Total/NA	Water	335.4	137038
860-63767-5 MS	Central Plant Influent Composite	Total/NA	Water	335.4	137038
860-63767-5 MSD	Central Plant Influent Composite	Total/NA	Water	335.4	137038

Prep Batch: 138464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63767-5	Central Plant Influent Composite	Total/NA	Water	Distill/CN	
860-63767-10	Central Plant Effluent Composite	Total/NA	Water	Distill/CN	
MB 860-138464/55-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 860-138464/56-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Eurofins Houston

1/17/2024

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QC Association Summary

Client: Bio Chem Lab, Inc
Project/Site: Central Plant

Job ID: 860-63767-1

General Chemistry (Continued)

Prep Batch: 138464 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-138464/57-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	

Analysis Batch: 138605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-63767-5	Central Plant Influent Composite	Total/NA	Water	4500 CN G	138464
				NonAm	
860-63767-10	Central Plant Effluent Composite	Total/NA	Water	4500 CN G	138464
				NonAm	
MB 860-138464/55-A	Method Blank	Total/NA	Water	4500 CN G	138464
				NonAm	
LCS 860-138464/56-A	Lab Control Sample	Total/NA	Water	4500 CN G	138464
				NonAm	
LCSD 860-138464/57-A	Lab Control Sample Dup	Total/NA	Water	4500 CN G	138464
				NonAm	

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Lab Chronicle

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Client Sample ID: Central Plant Influent Composite

Lab Sample ID: 860-63767-5 Date Collected: 12/13/23 00:00 **Matrix: Water**

Date Received: 12/18/23 13:27

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	135580	12/18/23 17:24	TTD	EET HOU
Total/NA	Prep	Distill/CN			6 mL	6 mL	137038	12/27/23 14:54	LD	EET HOU
Total/NA	Analysis	335.4		1			138197	12/27/23 18:15	AA	EET HOU
Total/NA	Analysis	420.4		1	10 mL	10 mL	136256	12/20/23 18:08	ADL	EET HOU
Total/NA	Prep	Distill/CN			6 mL	6 mL	138464	12/28/23 12:33	LD	EET HOU
Total/NA	Analysis	4500 CN G NonAm		1			138605	12/28/23 18:01	AA	EET HOU
Total/NA	Analysis	SM 4500 CN G		1			135975	12/29/23 21:34	MC	EET HOU

Client Sample ID: Central Plant Effluent Composite

Lab Sample ID: 860-63767-10

Date Collected: 12/13/23 00:00 **Matrix: Water**

Date Received: 12/18/23 13:27

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1	_	1	5 mL	5 mL	135580	12/18/23 17:03	TTD	EET HOU
Total/NA	Prep	Distill/CN			6 mL	6 mL	137038	12/27/23 14:54	LD	EET HOU
Total/NA	Analysis	335.4		1			138197	12/27/23 18:18	AA	EET HOU
Total/NA	Analysis	420.4		1	10 mL	10 mL	136256	12/20/23 18:11	ADL	EET HOU
Total/NA	Prep	Distill/CN			6 mL	6 mL	138464	12/28/23 12:33	LD	EET HOU
Total/NA	Analysis	4500 CN G NonAm		1			138605	12/28/23 18:02	AA	EET HOU
Total/NA	Analysis	SM 4500 CN G		1			135975	12/29/23 21:34	MC	EET HOU

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Eurofins Houston

Accreditation/Certification Summary

Client: Bio Chem Lab, Inc Job ID: 860-63767-1 Project/Site: Central Plant

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Progra	am	Identification Number	Expiration Date
Texas	NELAF)	T104704215-23-53	06-30-24
	•	•	not certified by the governing author	ity. This list may include anal
0 ,	pes not offer certification Prep Method		Analyte	
for which the agency do Analysis Method 4500 CN G NonAm	pes not offer certification Prep Method Distill/CN	Matrix Water	Analyte Cyanide, Non-amenable	
Analysis Method	Prep Method	Matrix		

Method Summary

Client: Bio Chem Lab, Inc Project/Site: Central Plant Job ID: 860-63767-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET HOU
335.4	Cyanide, Total	EPA	EET HOU
420.4	Phenolics, Total Recoverable	EPA	EET HOU
4500 CN G NonAm	Cyanide, Non-amenable	SM	EET HOU
SM 4500 CN G	Cyanide, Amenable	SM	EET HOU
Distill/CN	Distillation, Cyanide	None	EET HOU

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Sample Summary

Client: Bio Chem Lab, Inc
Project/Site: Central Plant

Job ID: 860-63767-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-63767-5	Central Plant Influent Composite	Water	12/13/23 00:00	12/18/23 13:27
860-63767-10	Central Plant Effluent Composite	Water	12/13/23 00:00	12/18/23 13:27

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

lient/Project:			·		Dabbs Michael								TX0026506
odress: 114			K KOSO		54-299-2444 / 25	4-299-2439 / 25	4-299-2448						WQ0011071-001
Maco	Texas 7	706		FAX No. 254	-299-2453						Collec	ted by	: Joseph Owen
Sample ID		Obs.	Sample Name, Site	Т	Colle	ction		Matrix	Container	G/	Preser-	Verified	
	L	Temp *C Te	Description of Gase	Start Date	Start Time	End Date	End Time		Number/ Volume / Type	1/6	vation		Analysis Requested
Labo	ratory Usa Or	, 	Number	CEIT Date	Otan Time	Life Date	Cita tillie	 - -	Number volume 7 Type	<u>۲</u> -	Validi	(FZ-F8)	
			Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ.	2-40mL VOA	<u>c</u>		F	Mercury
										l			
		1	Central Plant Influent	12/13/2023	12 <u>:</u> 00	_12/13/2023	12:00	AQ	1-40mL VOA	ء ا			Mercury Blank
				12 12222	12,00	12 10/2020	1200	7104		1	-	1	INFECUITY DIATIK
		1 1	C	40						_			
 -		 	Central Plant Influent	12/12/2023	12:00	12/13/2023	12:00	AQ	2-60mL VOA	 c		F1	Heribicides (2,4-D & 2,4,5-TP Silvex)
			Central Plant Influent	12/12/2023	60-63767 (ustody	Ą	7-Liters AG	C		FI	(SVOC-Table 307 Additionals, Pesticides, PCBs & Herbicides) 2-Chiorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 4,5-Dinitro-o-Cresol (4,6 Dimitro-2-methylphenols, 2,4-Dimethylphenol 4,5-Dinitro-o-Cresol (4,6 Dimitro-2-methylphenols, 2-Politrophenol 4) Nitrophenol P-Chiono-m-Cresol (4-Chioro-3-methylphenol), Pentachiorophenol Pentol, 24,6-Trichlorophenol Admin, alpha-Hexachiorocyclohexane (BHC), beta-Hexachiorocyclohexane (BHC), gamma-Hexachiorocyclohexane (BHC), beta-Hexachiorocyclohexane (BHC), gamma-Hexachiorocyclohexane (BHC), delta-Hexachiorocyclohexane (BHC), delta-Hexachiorocyclohexane (BHC), delta-Hexachiorocyclohexane (BHC), Chiordane, 4,4-DDT 4,4-DDE, 4-DDD, Dieletrin, alpha-Endosulfan, beta-Endosulfan, Endosulfan, Sulfate, Endrin, Endrin, Endrin, Adehysie, Heptachior Hetachior Epoxide, PCB-1021, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016, Toxaphene, Aeenaphthene, Aeenaphthene, Aernaphthylene, Arthractene, Bertz/Glapriene, Glapriene, Bertz/Glapriene, Bertz/Glapriene, Bertz/Glapriene, Hexachiorocytalne, Hexachiorocytalne, Networkiene, Metachiorocytalne, Networkiene, Metachiorocytalne, Networkiene, Networkiene, Metachiorocytriene, Networkiene, Metachiorocytriene, Networkiene, Metachiorocytriene, Networkiene, Metachiorocytriene, Networkiene, Metachiorocytriene, Networkiene, Metachiorocytriene, Malathion, Methoxychior Mitrosodiphenylamine, Nitrosodiene, Networkiene, Malathion, Methoxychior Mitrosodiphenolytamine, Nitrosodiene, Networkiene, Malathion, Methoxychior Mitrosodiorene, Malathion, Methoxychiorene, Malathion, Methoxychiorene, Malathion
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sample is received	red outside	holdtime/	s or preservation requirements, in	itial to authorize a	 		,			Į.			
Date:	Time	Relin	iquished by:		Placed in Refrigator / Initials	Date	Time	Rac	eived by				
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111/23		^ ኅ	naxa Wink	\	A or P) o	19/14/02	7.30		grafilolotor	1			
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	<u> </u>	L			Act C	Dec " =	Final Cont		No. of the contract of the con		ometer ID	:	
		_	mwater S-Sludge/Soll/Sedlm		Water				i)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 OH to pH>12 (7)None (8)Other, as noted			1 to 12 5	
ontainer P. P	Inntin C	Class Cla	es AG Ambor Close IND	Whiel Date 300	A 40-1 C	DD Other Die	le Dann	, 27, 461		,0,1401	1911 145,1	- 14.3	,

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CITY OF WACO

TELEPHONE: (254) 299-2450

Waco, Texas 7	76707				CIXXO	F WAC	•					FAX: (254) 299-245
Client/Projec	t: Centra	l Plant		Contact: Tina	Dahbs Micha	ael Garcia	a / Scott Espen		_	TX Permit	No T	V0026508
Address: 114			ad				-2439 / 254-299-2448					NQ0011071-001
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										- Olicoto	 	7.47.42) OF 11/10 J
Sample ID	Τ-	Obs Corr Temp *C Temp *C	Sample Name, Site Description	Coll	ection	Matrix	Container	-	G/	Preser-	Verifie	
			or Case Number	Start Date	Start Time		ł		/。	l	l .	Analysis Requested
	naretory Use C	Inly	 	Start Date	Start Time	-	Number/ Volume / Ty	ype	٠,	vation	(F2-F8)	
		i 1	Central Plant Influent	12/13/2023	0:00	ΑQ		-250 mL AG	G	H2004		Dranala CD
 	T	 	OSING! I IGHT HITGER	12 13/2023		\^	 	-230 ITL AG	<u> </u>	H2S04	FZ_	Phenols (T)
			Central Plant Influent	12/13/2023	0:00	AQ		1-250 mL. P	G	NAOH	F9	(T) Cyanide
					11 11 1					Ascrbic		1
	-	 	Central Plant Influent	12/13/2023	0,00	ΑQ		1-500 mL P		Acid/NaOH	F8	(A) Cyanide
			Central Plant influent	12/13/2023	0:00	AQ	а	3-40 mL vial	G		F1	Volatiles- Table (I- Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachloride, Chlorobenzene, Chlorocethane, 2-Chloroethylinyl ether Chloroform, Chlorodibromomethane, 1 1-Dichloroethane, 1,2-Dichloroethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichloroproppiene (Total, 1,3 cichloropropene). Ethylbenzene, Methyl Bromide (bromomethane), Methylene Chloride, 1,2,2-Tetrachloroethane, Tetrachloroethane, Tetrachloroethane, Tetrachloroethane, Tetrachloroethane, Tetrachloroethane, Tichloroethane, 1,2-Trichloroethane, Tichloroethene, 1,2-Irichloroethane, Tichloroethylene (Trichloroethane, Tichloroethylene (Trichloroethane, Tichloroethylene (Tichloroethane, Tichloroethylene (Tichloroethane, Tichloroethylene), Virchloroethylene, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, TIMM (Total Trihalomethanes, 1,2-Dibromoethane and Methyl ethyl ketone
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Customer	Comme	nts							Addit	ional Comme	ents:	
* Use 40 CFR * Contract Lab	136 Appr Must be coratory w	oved Methods NELAP Accre vill composite			ım, Hex			1		Incol vor Z	 ∤	nave collect Toplated
If sample is rece	ived outside	e holdtime/s or p	reservation requirements, initial to au	thorize analysis:						1		
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I				Refrigator/		\				1	۱	in nollector sig'.
Date [.]	Time	Relinqui	shed by	initials	Date:	Time	Received by:		Į	\mathcal{O}^{III}	700	No Comment
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	<u> </u>	5114 St		Aor C	<u> </u>	Preservet	ion: F -Field, L -Lab Plus: (1)c			ometer ID:	2)LIMO2	10 -U-2
				Potable Water		(4)HCI to	pH<2 (5)Na2S2O3 (6)NaOH					
Container: P-	Plastic G	-Clear Glass	AG -Amber Glass WP -Whirl Pal	VOA -40ml vi	al SBB-Steri	ie Black Ba	gs					

^{*} Fill out all highlighted sections on Chain of Custody

^{*} Refrigerator A must have a custody seal.

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.

Page 23 of 31

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project	Central	Plant			Contact: Tina	Dabbs/Micha	el Garo	ia / Scott Espen		TV Darmie b	in TV	MARCENC	
Address. 114			nt Ro	ad	Phone No. 2	54-299-2444 /	254-29	9-2439 / 254-299-2448		TX Permit No. TX0026506 WQ Permit No. WQ0011071-001			
Waco	Texas 7	6706			FAX No. 254	299-2453				Collected		Mittel close chair	
Camala ID		Obs	Соп						- /		1	free f	
Sample ID		Temp °C	Temp °C	Sample Name, Site Description or Case Number	Colle		Matrix	Container	G/	Preser-	Verified	Analysis Requested	
Labo	ratory Use On	<u>''</u>		G Gase (Milliber	Start Date	Start Time		Number/ Volume / Type	/ c	vation	(F2-F8)		
			L	Central Plant Influent	12/13/2023	COCIAM	AQ	1-250 mL_AG	G	H2S04	F2_	Phenols (T)	
				Central Plant Influent	12/13/2023	<u>QOOAM</u>	AQ	1-250 mL P	G	NAOH _	F9	(T) Cyanide	
<u> </u>]	L :		Central Plant Influent	12/13/2023	CONAM	AQ	1-500 mL P	G	Ascrbic Acid/NaOH	F8	(A) Cyanide	
				Central Plant Influent	12/13/2023	GODAM	AQ	3-40 mL vial	G		F1	Volatiles- Table II- Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachloride, Chlorobetnzene, Chlorobetnane, 2-Chlorobetnylvinyl ether Chloroform, Chlorodibromomethane, 1-1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethylene (1 1 Dichloroethene) 1,2-Dichloropropare, 1,3-Dichloropropylene (Total 1,3 dichloropropene), Ethylbenzene, Methyl Bromide (bromomethane), Methyl Chloride (chloromethane), Methylene Chloride, 1-1,2-Z-trachloroethylene, Tetrachloroethylene (Tretrachloroethylene, 1-1-1 Trichloroethane, 1-1,2-Trichloroethylene, 1-1 Trichloroethane, 1-1,2-Trichloroethylene, 1-1 Trichloroethane, 1-1,2-Trichloroethylene, 1-1 Trichloroethane, 1-1,2-Trichloroethylene, 1-1 Trichloroethane, 1-1,2-Trichloroethane, 1-1,2-Trichloroethylene, 1-1 Trichloroethane, 1-1,2-Trichloroethane, 1-1,3-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichloroethane, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichloroethane, 1-1-Dichlorobenzene, 1-1-Dichlorobenzene, 1-1-Dichloroethane, 1-1-Dichlorobenzene, 1-1-Dic	
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* Use 40 CFR 1 * Contract Lab * Contract Labo * Make sure to	36 Appro Must be N cratory wil report Chi	ved Me ELAP A Il comp romium	thods. Accred osite P Tri.	the MAL. See MAL list attached. ited. rhenols, Cyanide, Sulfide, Volati		, Hex				Fit	tere Him	of for thromium Hex 15 mins tive for HZS needed on this report To 214/23	
ii sainpie is receiv	Jed Obliside	Holdanie	s/s_O_DI	eservation requirements, initial to au	Placed in				1			1: 0 A c 479	
Date:	Time	Bali	inauta	shed by	Refrigator/ Initials	Data	T:	Bassing the		N	ega	tive tor 11 cs	
11 /2 /20	10054	Ma -		To all was a	M. IV	Date:	<u>Time</u> 7:30	Received by:	1		•	this report	
12/14/23	1030		n	and the	A or C	17.14.23	1030	Marian	*	/ > r	704	needed on	
12.14.23	1350	/		2	A OLC	141125	3.50	lude		,		12/14/100	
					A or C								
					Aor C				Therm	ometer ID:			
Matrix AQ -At	jueous S	W -Stor	mwate	s-Sludge/Soil/Sediment P-Po	otable Water			ntion: F -Field, L -Lab Plus: (1)cool to pH<2 (5)Na2S2O3 (6)NaOH to p					
Container P-P	lastic G	Clear G	lass	AG -Amber Glass WP -Whirl Pa	k VOA -40ml v	ial SBB-Steri	ile Black	Bags	, ,- 12	Vitrone (O)O	, , , , , , , , , , , , , , , , , , , 	000 (5) 1100 (1) 12.0 (0 12.0 5.0.	

^{*} Fill out all highlighted sections on Chain of Custody
*Refrigerator A must have a custody seal.
* Refrigerator C is lo

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.

Page 24 of 31

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project							cia / Scott Espen		TX Permit I		
Address: 1147 Treatment Plant Road Phone No. 254-299/2444 / 254-299-2439 / 254-29 Waco Texas 76706 FAX No. 254-299-2453									WQ Permit Collected		90011071-001 1529th 2 Hould
44200	TOXAS I			FAX NO. 294	-255-2453				Collected	Dy	DISTING
Sample ID		Obs Con Temp *C Temp *C	Sample Name, Site Description or Case Number	Collex Start Date	stion Start Time	Metrix	Container Number/ Volume / Type	G/c	Preser- vation	Verified	Analysis Requested
Labo	oretory Use O	- Jy			17 MA			Ť-		 	
		-	Central Plant Influent	2/12/2023	1200PM	AQ	1-250 mL AG		H2S04		Phenols (1)
	┼		Central Plant Influent	12/12/2023		AQ		G	NAOH Ascrbic	F9_	(T) Cyanide
	<u> </u>	 	Central Plant Influent	12/12/2023	ft.ouph	AQ	1-\$00 mL P	G	Acid/NaOH	F6	(A) Cyanide
			Central Plant Influent	12/12/2023	FORM	ĄQ	3-40 mL via	9		F1_	Volatiles-Table II- Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachloride, Chlorobenzene, Chloroethane, 2-Chloroethylvinyl ether Chloroform, Chlorodibromomethane, 1,1-Dichloroethylene (1 1 Dichloroethene), 1 Dichloroptopane, 1,3-Dichloroptoplene (Total 1,3 dichloroptopane, 1,3-Dichloroptoplene (Total 1,3 dichloroptopane), Ethylbenzene, Methyl Bromide (bromomethane), Methylen Chloride (chloromethane), Methylen Chloride, 1 1,2,2-Tetrachloroethane, Tetrachloroethylene (Tetrachloroethene), 1-Trichloroethane, 1,1-2-Trichloroethene), 1-Trichloroethane, 1,1-2-Trichloroethene, 1-1,2-Trichloroethene, 1-1,2-Trichloroethene, 1-1,2-Trichloroethene, 1-1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Thichloroethylene (Trichloroethane, 1,2-Dibbromethane, and Methyl ethyl ketone
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Customer (Commer	nts	<u> </u>	·				Addi	tional Comme	nts:	
* Use 40 CFR * Contract Lab * Contract Lab * Make sure to	136 Appro	oved Methods NELAP Accre ill composite nromium Tri.	dited. Phenois, Cyanide, Sulfide, Vola preservation requirements, initial to aut	tiles & Chromiu horize analysis: Placed in Refrigator/			Paratical law				
Date:	Time		ished by	Initials	Date:		Received by	-			
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	1			A or C	 			Therm	nometer ID;	٠	
Matrix AQ -A	queous	SW -Stormwa	ter S-Sludge/Soil/Sediment P-				stion: F - Field, L - Lab Plus: (1)cool to 4c	C (2)F	12SO4 to pH<2		
_			AG -Amber Glass WP -Whirl Pa		rial SBB- Ste	I(4)HCi to eri∣e Blaci	o pH<2 (5)Na2S2O3 (6)NaOH to pH> k Bags	(7)1	NOTE (8)Other,	as noted	(9) NaOH pH 12.0 to 12.5 s.u.

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TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Page 1012

Client/Project							rcia / Scott Espen		TX Permit N	o. TXI	0026506
Address: 114			load			/ 254-2	99-2439 / 254-299-2448		WQ Permit I	No. W	Q0011071-001 Z-D
Waco	Texas 76	706		FAX No. 254	-299-2453				Collected	by.	HARRY OWER
Sample ID	$\overline{}$	Obs Cor Temp C Temp	/ la	Collec		Matrix	Container	10/	1	N. 15	
- -	<u> </u>		 Sample Name, Site Description or Case Number 	├ ──-		Matrix		G/	Preser-	Vertfied (Analysis Requested
Labo	oratory Use Or	nty	UI GERRI IVALIA	Start Date	Start Time	├	Number/ Volume / Type	/ c	vation	(F2-F8)	
)		Central Plant Influent	12/12/2023	1800	AQ	1-250 mL AG	G	H2S04	F2	Phenols (T)
				12 12 12	_)-236 IIIE AG	<u> </u>	112304		Prieriois (I)
	 		Central Plant Influent	12/12/2023	1800	AQ	1-250 mL P	G	NAOH	F9_	(T) Cyanide
	1	}	Central Plant Influent	12/12/2023	1800	١		1 _	Ascrbic		
			Central Plant Influent		1800	AQ	1-500 mL P		Acid/NaOH	F1_	(A) Cyanide Volatiles-Table II-Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachloride, Chlorobenzene, Chloroethane, 2-Chloroethylvinyl ether, Chlorobenzene, Chloroethane, 2-Chloroethylvinyl ether, Chloroform, Chlorodibromomethane, 11-Dichloroethane, 12-Dichloroethane, 11-Dichloroethylene (1 1 Dichloroethane, 1,2-Dichloroperpane, 1:3-Dichloroperpylene (Total 1,3 dichloropropene), Ethylbergane, Methyl Bromide (bromomethane), Methyl Chloride (chloromethane), Methylene Chloride, 11,2-Tetrachloroethane, Tetrachloroethylene (Tetrachlorothene) Toluene, 2-trans-Dichloroethylene (trans 1,2-Dichloroethane, 1,1-1-Trichloroethane, 1,1-2- Trichloroethane, Trichloroethylene (Tichloroethene), Vinyl Chloride, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4- Dichlorobenzene, TTHM (Total Trihalomethanes, 1,2- Dibromoethane and Methyl ethyl ketone
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Custome (<u></u>	<u> </u>				Addi	tional Commen	ts:	<u> </u>
 Use 40 CFR Contract Lab Contract Lab Make sure to 	136 Appro Must be N oratory wi report Ch	ved Method IELAP Accr ill composit romium Tri.	edited. e Phenols, Cyanide, Sulfide, Vola	tiles & Chromius thorize analysis: Placed in	m, Hex	<u> </u>		 			
Date:	Time	Relings	ished by	Refrigator/ Initials	Date:	Time	Received by:				
12-12-23		1	Delle	Porc L.O.	BINB			†			
12-14-23	1024			T	12.14.23			1			
12.14.23			The state of the s	A or C	11/1/23	<u>3</u> 5	ylva				
 	+	<u> </u>		Aorc	 -	 		1			
 -	+			A or C	,	 		├			
 _	⊥	L		A or C		<u> </u>	<u> </u>	Thern	nometer ID:		
Matrix AQ -A	queous \$	SW -Stormw	ater S-Sludge/Soil/Sediment P-	Polable Water		Preserva	ation: F-Field, L-Lab Plus; (1)cool to 40	C (2)F	12SO4 to pH<2 ((3)HN03	to pH<2
Container: P. F	Plastic G	Clear Glass	AG -Amber Glass IMP -Whirt Pa	k 1/04 40mlu	in SDB 64	ı(~)ri∪iti	o pH<2 (5)Na2S2O3 (6)NaOH to pH>1	4 (/)	yone (b)Criner, a	s noted	(9) NaOH pH 12.0 to 12.5 s.u.

Page 25 of 31

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CITY OF WACO P.O. BOX 2570

Waco, Texas 76707









Page 2 of 多

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project: Central Plant Contact: Tina Dabbs Michael Garcia / Scott Espen TX Permit No. TX0026506 Address: 1147 Treatment Plant Road Phone No. 254-299-2444 / 254-299-2439 / 254-299-2448 WQ Permit No. WQ0011071-001 Waco Texas 76706 FAX No. 254-299-2453 Collected by LANNY ONDACT Cbs Carr Temp °C Temp °C Sample ID Collection Matrix Container Sample Name, Site Description G Preser-Verified Analysis Requested or Case Number Start Date Start Time Number/ Volume / Type c vation (F2-F8) 0:00 Central Plant Effluent 12/13/2023 AQ 1-250 mL AG H2S04 F2 Phenois (T) 0100 Central Plant Effluent 12/13/2023 AQ 1-250 mL P NAOH (T) Cyanide Ascrbic 9 49 Central Plant Effluent 12/13/2023 AQ_ 1-500 mL P G Acid/NaOH (A) Cyanide Volatiles- Table II- Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachlonde, Chlorobenzene, Chloroethane, 2-Chloroethylvinyl ether Chloroform, Chlorodibromomethane, 1 1-Dichloroethane, 1,2-Dichloroethane, 1 1-Dichloroethylene (1 1 Dichloroethene), 1,2-Dichloropropane, 1,3-Dichloropropylene (Total 1,3 dichloropropene) Ethylbenzene, Methyl Bromide (bromomethane), Methyl Chloride (chloromethane), Methylene Chloride, 1 1,2,2-Tetrachioroethane, Tetrachioroethylene (Tetrachiorothene), Toluene, 1,2-trans-Dichloroethylene (trans 1,2 Dichloroethene), 1 1 1-Trichloroethane, 1 1,2-Trichloroethane, Trichloroethylene (Trichloroethene) Vinvi Chloride, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, TTHM (Total Trihajomethanes, 1,2-Central <u>Plant</u> Effluent 12/13/2023 0.00 3-40 mL vial Dibromoethane and Methyl ethyl ketone Customer Comments Additional Comments: *Contract Lab must measure down to the MAL. See MAL list attached. Use 40 CFR 136 Approved Methods. Contract Lab Must be NELAP Accredited. Contract Laboratory will composite Phenols, Cyanide, Sulfide, Volatiles & Chromium, Hex Make sure to report Chromium Tri. If sample is received outside holdtime/s or preservation requirements, initial to authorize analysis: Placed in Refrigator/ Initials Relinquished by .Z3 1030 A or C 12.14.23 A or C A or C A or C A or C Thermometer ID: Preservation: F - Field, L - Lab Plus: (1) cool to 4oC (2) H2SO4 to pH<2 (3) HNO3 to pH<2 Matrix AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water (4)HCl to pH<2 (5)Na2S2O3 (6)NaOH to pH>12 (7)None (8)Other, as noted (9) NaOH pH 12.0 to 12.5 s.u. Container: P- Plastic G-Clear Glass AG-Amber Glass WP-Whirl Pak VOA-40ml vial SBB-Sterile Black Bags

Page 26 of 31

1/17/2024

^{*} Fill out all highlighted sections on Chain of Custody

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Page of _

TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Client/Project: Central Plant Contact: Tina Dabbs Michael Garcia / Scott Espen TX Permit No. TX0026506 Address: 1147 Treatment Plant Road Phone No. 254-299-2444 / 254-299-2439 / 254-299-2448 WQ Permit No. WQ0011071-001 clibroid 1 msh Waco Texas 76706 FAX No. 254-299-2453 Collected by: Obs Cor Temp °C Temp °C Sample ID Collection Matrix Container Sample Name, Site Preser-Verifie Analysis Requested Description or Case Number Start Date Start Time Number/ Volume / Type vation (F2-F8) Laboratory Use Only 06.60 Central Plant Effluent 12/13/2023 1-250 mL AG H2S04 Phenols (T) 06:00 Central Plant Effluent 12/13/2023 1-250 mL P NAOH (T) Cyanide Ascrbic 0600 Central Plant Effluent 12/13/2023 1-\$00 mL P G Acid/NaOH F8 (A) Cyanide Volatiles- Table II- Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachloride, Chlorobenzene, Chloroethane, 2-Chloroethylvinyl ether Chloroform, Chlorodibromomethane, 1-Dichloroelhane, 1,2-Dichloroethane, 1 1-Dichloroethylene (1 1 Dichloroethene), 1.2-Dichloropropane, 1.3-Dichloropropylene (Total 1,3 dichloropropene), Ethylbenzene, Methyl Bromide (bromomethane), Methyl Chloride (chloromethane), Methylene Chloride, 1 1,2,2-Tetrachioroethane, Tetrachioroethylene (Tetrachlorothene), Toluene, 1,2-trans-Dichloroethylene (trans 1,2 Dichloroethene), 1 1-Trichloroethane, 1 1,2-Trichloroethane, Trichloroethylene (Trichloroethene), Virtyl Chloride, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, TTHM (Total Trihalomethanes, 1,2-Dibromoethane and Methyl ethyl 12/13/2023 66 00 Central Plant Effluent 3-40 mL via(Customer Comments Additional Comments: *Contract Lab must measure down to the MAL. See MAL list attached. Use 40 CFR 136 Approved Methods. Contract Lab Must be NELAP Accredited. Contract Laboratory will composite Phenols, Cyanide, Sulfide, Volatiles & Chromium, Hex Make sure to report Chromium Tri. If sample is received outside holdtime/s or preservation requirements, initial to authorize analysis; Placed in Refrigator/ Initials Date: Time Relinquished by Time Received by 12-13-23 06:10 12/14/23/030 12.14.23 1030 A or C 12.14.23 |1350 A or C A or C A or C Aor C Thermometer ID: Preservation: F -Field, L -Lab Plus: (1)cool to 4oC (2)H2SQ4 to pH<2 (3)HNO3 to pH<2 Matrix AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water (4)HCl to pH<2 (5)Na2S2O3 (6)NaOH to pH>12 (7)None (8)Other, as noted (9) NaOH pH 12.0 to 12.5 s.u. Container: P- Plastic G-Clear Glass AG -Amber Glass WP -Whirl Pak VOA -40ml vial SBB- Sterile Black Bags

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1/17/2024

Fill out all highlighted sections on Chain of Custody

^{*} Refrigerator A must have a custody seal.

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CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project: Central Plant	Contact: Tina	Dabbs Mic	hael Ga	rcia / Scott Espen		TX Permit N	0. TX	0026506
Address, 1147 Treatment Plant Road	Phone No. 28	54-299-244		99-2439 / 254-299-2448				Q0011071-001
Waco Texas 76706	FAX No. 254-	299-2453				Collected		beleting tand
Ohe Com								
Sample ID Cbs Corr Temp "C Temp "C Sample Name, Site Description	Coffecti	on	Matrix	Container	9/1	Preser-	Verified	Analysis Requested
Laboratory Use Only or Case Number	Start Date	Start Time	ļ	Number/ Volume / Type	<u>/ c </u>	vation	(F2-F8)	
Control Plant Efficant	40/40/0000	12.00PM			_ 1			
Central Plant Effluent			_ PA	1-250 mL AG	<u>-</u> G	H2S04	<u> F2</u>	Phenois (T)
Central Plant Effluent	 	COOP	AQ_	1-250 mL P	G	NAOH	F9_	(T) Cyanide
Central Plant Effluent	12/13/2023	12:00Pm	ΑQ	1-500 mL P	G	Ascrbic Aci <u>d/N</u> aOH	F8	(A) Cyanide
Central Plant Efficient	12/13/2023	12.008m	AQ	3-40 mL vial	G			Volatiles-Table II- Acrolein, Acrylonitrile, Benzene, Dichlorobromemethane, Bromoform, Carbon Tetrachloride Chlorobrozene, Chloroethane, 2-Chloroethylvinyl ether Chloroform, Chlorodibromomethane, 1 1-Dichloroethane, 1 1-Dichloroethane, 1 1-Dichloroethane, 1 1-Dichloroethylene (1 1 Dichloroethane, 1,2-Dichloropropane, 1,3-Dichloropropylene (Total 1,3 dichloropropene), Ethylbenzene, Methyl Bromide (bromomethane), Methyl Chloride (chloromethane), Methylene Chloride, 1 1,2,2-Tetrachloroethane, Tetrachloroethylene Chloride, 1 1,2-Z-Tetrachloroethane, Tetrachloroethylene (trans 1,2 Dichloroethene), 1 1,1-Trichloroethane, 1 1,2-Trichloroethane, Trichloroethylene (Trichloroethane, 1 1,2-Trichloroethane, Trichloroethylene (Trichloroethane, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, 1,4 Dichlorobenzene, 1,4 Dichlorobenzene, 1 1,2-Dibromoethane and Methyl ethyl ketone
	† -				+		<u> </u>	
Customer Comments	٠				A all list	onal Commen	Ĺ	<u></u>
*Contract Lab must measure down to the MAL. See MAL list attache * Use 40 CFR 136 Approved Methods. * Contract Lab Must be NELAP Accredited. * Contract Laboratory will composite Phenols, Cyanide, Sulfide, Voi * Make sure to report Chromium Tri. If sample is received outside holdtime/s or preservation requirements, initial to a	atiles & Chromiur	n, Hex			ragin			k for hudrogen Sulfide
y process sales requiremental milital to a	Placed in		$\overline{}$					
	Refrigator/		}	{ 1				
Date: Time Relinquished by	1	Date:	Time	Received by				
			_	S () ()				
12-13-23 1245 PM Brothictiques		21412		lorginal -				
12/14/23 1030 Jua () July	AorC	12.143	1030	1950 H				
12.14.23 1350	A or C	1/14/20		lida				
	AorC	1.11						
	A or C		_					
	A or C			₋	lierm-	ometer ID:	_	
Matrix AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment I			Preserva	tion: F -Field, L -Lab Plus: (1)cool to 4d	oC (2)	H2SO4 to pH<	2 (3)HN	103 to pH<2
Container: P- Plastic G -Clear Glass AG -Amber Glass WP -Whirl Pa		SBB-St	(4)HC to erile Black	pH<2 (5)Na2S2O3 (6)NaOH to pH>	<u>12 (7</u>)None (8)Othe	r as no	ted (9) NaOH pH 12.0 to 12.5 s.u.

^{*} Fill out all highlighted sections on Chain of Custody

^{*} Refrigerator A must have a custody seal.

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.

1/17/2024

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707



TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project:								rcia / Scott Espen		TX Permit N		
Address: 1147			ant Ro	<u>ad</u>			<u> 4 </u>	299-2439 / 254-299-2448				Q0011071-001
Waco	Texas 70	670 <u>6</u>			FAX No. 2	54-299-2453				Collected	by l	LARRY ONORES
		- Dog	oon									
Sample ID	_	Temp	Temp	Sample Name, Site Description	Coll	ection	Matrix	Container	G/	Preser-	Verified	Analysis Requested
Labor	ratory Use Or	nly		or Case Number	Start Date	Start Time		Number/ Volume / Type	/c	vation	(F2-F8)	Alleysis Requested
			{						1			
				Central Plant Effluent	12/13/2023	18:00	_AQ	1-250 mL AG	G	H2S04	F2	Phenois (T)
						18:00	l .		1		ļ	
	 	├—		Central Plant Effluent	12/13/2023		AQ.	1-250 mL F	G_	NAOH	F9	(T) Cyanide
				Central Plant Effluent	12/13/2023	18.01	AQ	1 500 ml B	G	Ascrbic	[(4) 0:
				Central Plant Effluent	12/13/2023	18.00	QA	1-500 mL P		Acid/NaOH		(A) Cyanide Volatiles- Table II- Acrolein, Acrylonitrile, Benzene, Dichlorobromomethane, Bromoform, Carbon Tetrachloride, Chlorobenzena, Chloroethane, 2-Chloroethylwinyl ether Chicoroform, Chicrodibromomethane, 1-Dichloroethane, 1,2-Dichloroethane, 1-Dichloroethylene (1 1 Dichloroethane, 1,2-Dichloropropane, 1,3- Dichloropropylene (Total 1,3 dichloropropene), Ethylbenzene, Methyl Bromide (bromomethane), Methyl Chioride (chloromethane), Methylene Chloride, 1 1,2,2- Tetrachloroethane, Tetrachloroethylene (Tetrachlorothene), Toluene, 1,2-trans-Dichloroethylene (trans 1,2- Dichloroethene), 1 1 1-Trichloroethane, 1 1,2- Trichloroethane, Trichloroethylene (Trichloroethene), Vinyl Chloride, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene, TTHM (Total Trihelomethanes, 1,2- Dibromoethane and Methyl athyl ketone
<u>_</u>	[├ —	├─	 -		<u> </u>	 		ļ	<u></u>	↓—	<u> </u>
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		<u> </u>				<u> </u>	<u> </u>	<u> </u>			Ĺ	
				 		———	╁			 -	_	
	L	<u>L</u>			'				ĺ	ĺ	1	
* Use 40 CFR 1 * Contract Lab I * Contract Labo * Make sure to r	nust mea 36 Appro Must be N ratory wi report Ch	sure do ved Me IELAP , II comp romium	thods, Accred losite F r Tri.	lited. Phenols, Cyanide, Sulfide, Volati		•			Addit	ional Commen	ts:	
If sample is receive	<u>ed outside</u>	<u>holdtim</u>	e/s or p	reservation requirements, initial to au	_				l			
	J]			Placed in]	}					
		\ \			Refrigato	ſ	[[ĺ			
Date:	Time	Rel	inguis	shed by [.]	r/ Initials	Date:	Time	Received by	1			
12-13-23	17.20	">	7. (Y	2 Ai	ABC Fro.	121423	7%0		1			
12-13-23	1	1				1214.23		Jan Gara	ĺ			
	1630		عج	_ ~Jake	A or C	1613.00			ļ			
12.14.23	1350			27	A or C	1414125	133	1 VNRZ				
	*	[_			777			1			
		_			A or C		 	 	1			
	 	 			A or C			ļ <u>-</u>				·
	<u> </u>				A or C					ometer ID:		
Matrix AQ -Aq	peous S	SW -Sto	rmwate	er S-Sludge/Soil/Sediment P-P	otable Water		Preserva	tion: F -Field, L -Lab Plus: (1)cool to 4oC (2)H2S0	04 to pH<2 (3)	INO3 to	pH<2
Container: P-P	lastic G	Clear G	lass	AG -Amber Glass WP -Whirl Pak	VOA -40ml	vial SBB-St	<u>rile Black</u>	pH<2 (5)Na2S2O3 (6)NaOH to pH>12 Bags	(/)NON	= (8)Other, as	noted (9)	NaUH pri 12 0 to 12.5 s.y.
. —									_			

Page 29 of 31

^{*} Fill out all highlighted sections on Chain of Custody

^{*} Refrigerator A must have a custody seal.

^{*} Refrigerator C is located in WMARSS Lab and locked at all times.



TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Client/Project:				<u> </u>		Dabbs Michael						TX Perr	nit No.	TX0026506
Address: 114			int Ro	ad		254-299- 2 444 / 25	4-299-2439 / 2	5 <u>4-299</u> -2448				WQ Per	mit No	. WQ0011071-601
Waco	Texas 7	3706			FAX No. 254	-299-2453		_				Collec	ted by	in bully hart for
			-	Carrie Name 201	`				=					The state of the s
Sample ID		Obs. Temp *C	Corr Temp *C	Sample Name, Site Description or Case		Collecti	ion		Matrix	Container	G/	Preser-	Verified	
Labo	retory Use O	vir		Number	Start Date	Start Time	End Date	End Time		Number/ Volume / Type	/c	vation	(F2-F6)	Analysis Requested
		, 		- 1,====-	 	-			 		-		1	
ĺ	i	Í	ì	 Central Plant Effluent	12/13/2023	0.01	4014010000		l	1		l	1 _	}
<u> </u>		-		Cendal Plant Enidem	12/13/2023	0:01	12/13/2023	23:59	AQ_	2-40mL VO	A C		F	Mercury
			1	Central Plant Effluent	12/13/2023	23:59	12/13/2023	23:59	AQ.	1-40mL VQ	A C		F1	Mercury Blank
	<u> </u>	 	f				12 14 233	1 20.91	7.3	1-40IIIE VO	~		— <i>F</i> —	INCICUTY BIATIK
l				Central Plant Effluent	12/13/2023	0:01	12/13/2023	23:59	AQ.	2-60mL VQ	A C	ĺ	F1	Heribicides (2.4-D & 2.4.5-TP Silver)
				Central Plant Effluent	2113/23	<i>0</i> :01	12/13/23			7-Liters A				Herbicides (2.4-D. 8.2.4.5-TP Silvex) (SVOCT abolt II, 307 Additionals, Pesticides & PCBs.) 2-Chlorophet 2.4-Dichlorophenol. 2,4-Dimethylphenol. 4,6-Dinitro-Cresol (4,6 Dinitro-2-methylphenols, 2,4-Dinitrophenol. 2-Nitrophenol. 4- Nitrophenol. 7-Chloro-m-Cresol (4-Chloro-3-methylphenol), Pentachlorophenol, Phenol., 2.4,6-Trichlorophenol, Aldrin, alpha- Hexachlorocyclohexane (BHC), beta-Hexachlorocyclohexane (BHC), gamma-Hexachlorocyclohexane (BHC), delta-Hexachlorocyclohexane (BHC), gamma-Hexachlorocyclohexane (BHC), delta-Hexachlorocyclohexane (BHC), gamma-Hexachlorocyclohexane (BHC), delta-Hexachlorocyclohexane (BHC), gamma-Hexachlorocyclohexane (BHC), delta-Hexachlorocyclohexane (BHC), Chlordane, 4,4-DDT 4.4-DDE, 4,4-DDD, Dieldrin, alpha- Endosulfan, beta-Endosulfan, Endosulfan Sulfate, Endrin, Endrin Aldehyde, Heptachlor Hetachlor Epoxide, PCB-1242, PCB-1254, PC 1221 PCB-1232, PCB-1248, PCB-1260, PCB-1016, Toxaphene, Acenaphthene, Acenaphthylene, Anthracene, Benzidine, Benzo(a)janthracene, Benzo(a)pyrene, 3,4-Benzofluoranthene, Benzo(a)janthracene, Benzo(a)pyrene, 3,4-Benzofluoranthene, Benzo(a)janthracene, Bis(2-Chlorocethyl)jether Bis(2-Chlorocethoxy)methane, Bis(2-Chlorocethoxy)methane, Bis(2-Chlorocethoxy)methane, Bis(2-Chlorocethoxy)methane, Alexachlorocethoxy)methane, Bis(2-Chlorocethoxy)methane, Alexachlorocethoxy)methane, Bis(2-Chlorocethoxy)methalene, Alexachlorocethoxy)methalene, Alexachlorocethoxy phenyl ether Butylbenzyi Phthalate, 2-Chloronaphthalene, Alexachlorocethoxy phenyl ether Butylbenzyi Phthalate, 2-Chloronaphthalene, Alexachlorocethoxy phenyl ether Butylbenzyi Phthalate, 2-Chlorophenol, Nitrobenzyene, Nitrobenzyene, Nitrobenzyene, Nitrobenzyene, Nitrobenzyene, Nitrobenzyene, Nitrobenzyene,
									\vdash	<u> </u>	+			
<u> </u>	<u> </u>				<u> </u>	<u> </u>	L_							
Custome (Comme	nts									Addi	ional Com	ments.	
Use 40 CFR 13 Contract Lab N Make sure to n Andy please re	36 Approve flust be NE eport Chro ecord the 7	ed Metho LAP Ac mium T otal Nit	ods. credite ri. rogen a	MAL See MAL list attach d. In the Bio-Chem Report. Interpretation requirements, i				,	7	-			J	Negative HZS Negative C12
I		1				Placed in			1		1			/ * <i>J</i>
L .						Refrigator/	\	<u>_</u> _			1			
Date:	Time	Rel	<u>inquí</u>	shed by:		Initials	Date	Time	Rec	eived by	_			
12/14/12	12:00	AM	_	Kidsul	100 - 1	D KL	18/14/23	7.30	1_2	006 () 01-	1			
16 1. 110			7 1	now for		** ***				2 AD JOURN	1			
12114162	1000			and the second		AOC	12.14.23	1030	1	277 4				
12.14.72	130)		//	2		4 0.0	10/14/25	12:54]	ViaNa				
, - , , , , , , , , , , , , , , , , , ,	UC.					Aorc	1 44 • 1	13257	 	TWW -	-			
L	L					ADEC	L . (7***			and the Tatal Million and the state of the s
1	1												ase re	ecord the Total Nitrogen result on the analytical
 	 	 				A or C	 	 	-		repo	рπ		_
<u> </u>				<u> </u>		Aor C						om <u>eter ID</u>	<u>:</u>	
Matrix AQ -A	queous :	SW -Sto	omwate	er S-Sludge/Soil/Sedime	ent P-Potable V	Vater	Preservation: F -	Field, L -Lab	Plus: (1)	cool to 4oC (2)H2SO4 to pH<2 (3)H	NO3 to	pH<2		
				AG -Amber Glass WP			(4)HCl to pH<2 B- Sterile Black B	(5)Na2S2 <u>O3</u>	(6)NaO	H to pH>12 (7)None (8)Other, as n	oted (9)	NaOH pH	12.0 to 1	2.5 s.u.
	4		1010/07	cumor Glass 19F	THE PART VL	ומבל מאויוועד ביי	- CLOTTE DIACK D	<u>reys</u>	_					

^{*} Fill out all highlighted sections on Chain of Custody

^{*} Refrigerator A must have a custody seal.

^{*}Refrigerator C is located in WMARSS Lab and locked at all times.

Login Sample Receipt Checklist

Client: Bio Chem Lab, Inc Job Number: 860-63767-1

Login Number: 63767 List Source: Eurofins Houston

List Number: 1

Creator: Jimenez, Nicanor

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
he cooler or samples do not appear to have been compromised or ampered with.	True	
amples were received on ice.	True	
ooler Temperature is acceptable.	True	
ooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
amples are received within Holding Time (excluding tests with immediate ITs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
sample collection date/times are provided.	True	
ppropriate sample containers are used.	True	
sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	

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 Page 1 of 11
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Dilution Factor

Analyst Initials

Date / Time Analyzed

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-010224
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.2.24
EFFLUENT

					EFFL	JENT
FIELD DATA / SAMPLE DESCRIP	TION					
Collection Point		EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
Date/ Time Collected		12.15.23-12.16.23 / 12:00- 12:00	12.16.23-12.17.23 / 12:00- 12:00	12.17.23-12.18.23 / 12:00-12:00	12.18.23-12.19.23 / 12:00- 12:00	12.19.23-12.20.23 / 12:00-12:00
Date/ Time Received by Lab		12.18.23 / 11:45	12.18.23 / 11:45	12.19.23 / 11:13	12.20.23 / 11:39	12.21.23 / 11:53
·		29741-23, 29742-23, 29743-23	29736-23, 29737-23,	29896-23, 29897-23, 29898-23	30003-23, 30004-23,	30135-23, 30136-23 30137-23
Parent Laboratory Sample ID						
Sampling Description/Procedure		Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type		Composite	Composite	Composite	Composite	Composite
Sample Matrix		Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector		R. Woods	R. Melton	B. Hand	B. Hand	B. Hand
		1				
PARAMETER / UNIT / METHOD						
CBOD _{5,} mg/L	SM 5210 B	HT B1 < 2	B1 < 2	Q B1 < 2	B1 < 2	Q < 2
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.18.23 / 13:55	12.18.23 / 13:55	12.19.23 / 17:00	12.21.23 / 09:30	12.21.23 / 18:15
Analyst Initials		LD / ARJ	LD / ARJ	ARJ	LD / ARJ	ARJ
TSS, mg/L	SM 2540 D	< 2	< 2	< 2	< 2	< 2
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.19.23 / 09:20	12.19.23 / 09:20	12.20.23 / 09:30	12.21.23 / 09:30	12.27.23 / 09:50
Analyst Initials		MH	MH	МН	MH	MH
NH ₃ N, mg/L	SM 4500 NH ₃ B, D	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Reporting Limit, mg/L		0.10		0.10		
nceporally Little, my/L		0.10	0.10	0.10	0.10	0.10

12.19.23 / 19:30

SV

12.19.23 / 19:30

sv

12.20.23 / 22:30

SV

12.21.23 / 19:20

sv

12.26.23 / 21:10

SV

Page 2 of 11 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING REPORT ID: WACOWMARSS-010224

LAB CONTACT: SHAY OCHOA REPORT DATE: 1.2.24 INFLUENT

CICI D	DATA	/ CAAADIE	DESCRIPTION

FIELD DATA / SAMPLE DESCRIPTION					
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	12.15.23-12.16.23 / 12:00- 12:00	12.16.23-12.17.23 / 12:00- 12:00	12.17.23-12.18.23 / 12:00-12:00	12.18.23-12.19.23 / 12:00- 12:00	12.19.23-12.20.23 / 12:00-12:00
Date/ Time Received by Lab	12.18.23 / 11:45	12.18.23 / 11:45	12.19.23 / 11:13	12.20.23 / 11:39	12.21.23 / 11:53
Parent Laboratory Sample ID	29744-23, 29745-23	29739-23, 29740-23	29899-23, 29900-23	30006-23, 30007-23	30138-23, 30139-23
Sampling Description/Procedure	Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type	Composite	Composite	Composite	Composite	Composite
Sample Matrix	Aqueous-NPW	·	Aqueous-NPW		·
Запре манх	Aqueous-INF VV	Aqueous-IVF VV	Aqueous-INF VV	Aqueous-INF VV	Aqueous-NF VV
Collector	R. Woods	R. Melton	B. Hand	B. Hand	B. Hand

PARAMETER / UNIT / METHOD						
BOD _{5,} mg/L	SM 5210 B	HT 242.	122.	Q 163.	163.	176.
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.18.23 / 13:55	12.18.23 / 13:55	12.19.23 / 17:00	12.21.23 / 09:30	12.21.23 / 18:15
Analyst Initials		LD / ARJ	LD / ARJ	ARJ	LD / ARJ	ARJ

NH ₃ N, mg/L	SM 4500 NH ₃ B, D	39.2	36.2	28.8	28.0	24.7
Reporting Limit, mg/L		0.50	0.50	0.50	0.50	0.50
Dilution Factor		5	5	5	5	5
Date / Time Analyzed		12.19.23 / 19:30	12.19.23 / 19:30	12.20.23 / 22:30	12.21.23 / 19:20	12.26.23 / 21:10
Analyst Initials		SV	sv	SV	sv	SV

${\bf ANALYTICAL\ NOTES,\ INTERPRETATIONS,\ METHOD\ DEVIATIONS\ OR\ ENVIRONMENTAL\ CONDITIONS:}$

NONE TO REPORT.

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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO				
WMARSS				
DISCHARGE MONITORING				
REPORT ID:	WACOWMARSS-010224			
LAB CONTACT: SHAY OCHOA				
REPORT DATE: 1.2.24				

SUMMARY OF ANALYTICAL BATCH QC

BOD

DOD				
SETUP DATE	SETUP ID	BATCH ID		
12.18.23	B-121823-13	B-121823-13-01		
DUPLICATE	RESULT 1	RESULT 2	% DEV	
29744-23	248	236		2.5
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA	
0.08	0.01	169	200	

SETUP DATE	SETUP ID	BATCH ID	
12.19.23	B-121923-14	B-121923-14-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29856-23	134	148	5.0
29870-23	176	152	7.3
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
Q1 0.31	Q1 0.24	172	169

SETUP DATE	SETUP ID	BATCH ID		
12.21.23	B-122123-16	B-122123-16-03		
DUPLICATE	RESULT 1	RESULT 2	% DEV	
30015-23	174	188		3.9
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA	
0.08	0.10	189	182	

SETUP DATE	SETUP ID	BATCH ID	
12.21.23	B-122123-17	B-122123-17-01	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30042-23	447	474	2.9
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.17	0.20	180	Q2 160

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.19.23	T-121923-10	T-121923-10-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29710-23	34	33.3	1.0
29721-23	3530	3510	0.3
BLANK, mg/L	<2	LCS % REC	96.0

SETUP DATE	SETUP ID	BATCH ID	
12.20.23	T-122023-11	T-122023-11-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29856-23	104.2	100.8	1.7
29860-23	302	302	0.0
BLANK, mg/L	<2	LCS % REC	101.6

SETUP DATE	SETUP ID	BATCH ID	
12.21.23	T-122123-12	T-122123-12-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30023-23	462	424	4.3
BLANK, mg/L	<2	LCS % REC	97.0

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING REPORT ID: WACOWMARSS-010224 LAB CONTACT: SHAY OCHOA REPORT DATE: 1.2.24

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.27.23	T-122723-13	T-122723-13-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30119-23	42.5	39	4.3
30123-23	2610	2630	0.4
BLANK, mg/L	<2	LCS % REC	93.4

NH3N

SETUP DATE:	SETUP ID:	BATCH ID:			
12.20.23	N-122023-15	N-122023-15-01			
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:		
29900-23	28.8	28.9	0.2		
29928-23	27.0	27.1	0.2		
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:		
29837-23	0.64	2.61	98.8		
29837-23	0.64	2.57	96.8		
BLANK, mg/L:	LCS % REC:	LCSD % REC:			
< 0.05	101.2	101.8			

SETUP DATE:	SETUP ID:	BATCH ID:	
12.21.23	N-122123-16	N-122123-16-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
29950-23	35.4	35.5	0.2
29961-23	27.1	27.4	0.6
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
29965-23	0.05	1.86	90.6
29965-23	0.05	1.82	88.6
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	101.8	102.6	

SETUP DATE:	SETUP ID:	BATCH ID:			
12.26.23	N-122623-18	N-122623-18-01			
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:		
30139-23	24.7	24.8	0.2		
30176-23	32.5	33.6	1.6		
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:		
30185-23	0.07	1.92	92.3		
30185-23	0.07	1.94	93.3		
BLANK, mg/L:	LCS % REC:	LCSD % REC:			
< 0.05	101.6	102.4			

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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 202	23 - CITY OF WACO							
W	MARSS							
DISCHARGE MONITORING								
REPORT ID:	WACOWMARSS-010224							
LAB CONTACT:	SHAY OCHOA							
REPORT DATE:	1.2.24							

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TSS

% DEV: PRECISION ACCEPTABLE RANGE 0-5% LCS % REC: ACCEPTABLE RECOVERY 80-120% TSS BLANK: ≤2.0 mg/L

NH₃N

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-010224
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.2.24

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.
Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
Q3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
QS3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be
	statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
Q4	Sample specific duplicate precision outside desired range.
QM1	Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
QM2	Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
QM3	Microbiology precision outside desired range.
B1	Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
B2	Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
В3	Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
W1	Result is an average of multiple weighing / drying cycles.
С	Reported result over the laboratory's calibration range
C1	Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
J5	Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
ND	Not detected
٧	Additional sample volume would have been required to meet analytical method specifications.
HT	Sample analysis performed outside method / regulatory prescribed holding time.
T	Sample received outside method / regulatory prescribed requirements for thermal preservation.
P	Sample received outside method / regulatory prescribed requirements for pH preservation.
Α	Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
N	The associated analysis was performed by a network / sub-contract laboratory.
L	Laboratory Error
PW	Potable Water
NPW	Non-Potable Water

ADDITIONAL NOTES:

Refer to additional notes / supplemental narrative

Z

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707

CITY OF WACO

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 Collected by: Richard Wetton FAX No.: 254-299-2453

Sample ID	Obs Corr Temp Temp °C °C	Sample Name, Site	C	Collection			Container		Preser-	Verified	
Laborator	y Use Only	Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
2973623	40 45	WMARSS EFFLUENT	12/16/23-12/17	7/23 1	2:00 - 12:00	AQ	P-2000	Composite	1		TSS
9737:23		WMARSS EFFLUENT	12/16/23-12/17	7/23 1	2:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
973823		WMARSS EFFLUENT	12/16/23-12/17	7/23 1	2:00 - 12:00	AQ	P-1000	Composite	1		CBOD
9739-23	VW	WMARSS INFLUENT	12/16/23-12/17	7/23 1	2:00 - 12:00	AQ	P-125	Composite	1	/	BOD
9740-23	V	WMARSS INFLUENT	12/16/23-12/17	7/23 1	2:00 - 12:00	AQ	P-250	Composite	1,2	10	NH3
											*
Commen		requirements, initial to authorize analysis;							PH	Str. p	nents: 5: 7255-1-1570
Date	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time	Val.	Received	by:			
		1. l. Collette	A or B PLM 12	-18-2	8:58	W	illi Sn	ith			
417/23	12:00 714	percent quent		10							
4/17/23 2-19-23	11:45 AM	Malas Gletter Willis Spirth	A or B	18.23		4.14	son Ja	aulk	If sample rece	ived in lab within	2 hours no presevation needed

REPORT ID:
LAB CONTACT:
REPORT DATE:



TELEPHONE: (254) 299-2450

Page 1 of 1

FAX: (254) 299-2453

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: ROBERT WOODS

	np°C °C	Sample Name, Site		Collection			Container	Cook as	Preser-	Verified	
Laboratory Use	se Only	Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
174123 40	0 45	WMARSS EFFLUENT	12/15/23-12/1	16/23	12:00 - 12:00	AQ	P-2000	Composite	1		TSS
174223		WMARSS EFFLUENT	12/15/23-12/1	16/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3
1743.23		WMARSS EFFLUENT	12/15/23-12/1	16/23	12:00 - 12:00	AQ	P-1000	Composite	1	/	CBOD
174123 V	1	WMARSS INFLUENT	12/15/23-12/1	16/23	12:00 - 12:00	AQ	P-125	Composite	1	_	BOD
74523 V	V	WMARSS INFLUENT	12/15/23-12/1	16/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
1											
Comments:		n requirements, initial to authorize analysis:							Labora	Strips	nents: 7255-1-157(c
Date	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	by:			
	2:00 PM	Aval.		2-18-2	13 8:58	1	Tillio	Smith			
2-16-23/	I I III DA	Willing Cotte	A or B	18:23	11:45	All	SOUT	MON	If sample rece	ived in lab within	2 hours no presevation needed
2-16-23/	11:45m	MUNION SHINA	A or B	1000	11 12	1 111		W. W. Lu			INDICATED AND DESCRIPTION OF THE PROPERTY OF T

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING
PORT ID:

WACOWMARSS-010224
BECONTACT:
SHAY OCHOA

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Sample ID



Collection

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS

Contact: Scott Espen/Michael Garcia

TX Permit No.: TX0026506

Address: 1147 Treatment Plant Road

Phone No.: 254-299-2450

Waco, Texas 76707

FAX No.: 254-299-2453

Collected by: Branch

Container

Preser- Verified

Date Time Marrix Number Numbe	Sample ID	Temp °C	°C	Sample Name, Site		Collection	1		Container	Cb	Preser-	Verified	
WMARSS EFFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-1000 Composite 1,2 1,0 NH3	Laborator	y Use Only			D	ate	Time	Matrix	Volume /	Grab or Composite	vation		Analysis Requested
29898.23 WMARSS EFFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-1000 Composite 1 C80D	9896.23	5,2 5	.1	WMARSS EFFLUENT	12/17/2023	-12/18/2023	12:00 - 12:00	AQ	P-2000	Composite	1		TSS
WMARSS INFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-125 Composite 1 BOD WMARSS INFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-250 Composite 1,2 I-O NH3 Comments: Laboratory Comments: PA SHr; PS 7 2551 - 157 Sample in received additination or preservation requirements. Initial to authorize analysis. Date Time Relinquished by: Refrigatory Initials B A or B H2-/9-23 8:57 A or B H2-/9-23 William Smith 12-/9-23 8:57 Laboratory Comments: PA Shr; PS 7 2551 - 157 A or B H2-/9-23 8:57 WMARSS INFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-125 Composite 1 BOD Received by: Initials Smith Smith 12-/9-23 8:57 WMARSS INFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-125 Composite 1 BOD Received by: Initials Smith Smith 12-/9-23 8:57 WMARSS INFLUENT 12/17/2023-12/18/2023 12:00 - 12:00 AQ P-125 Composite 1 BOD NH3 Laboratory Comments: PA Shr; PS 7 2551 - 157 A or B H2-/9-23 8:57 William Smith Smith 12-/9-23 8:57	19897 -23	1	1	WMARSS EFFLUENT	12/17/2023	-12/18/2023	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
Comments: Laboratory Comments: PH Str:PS 7 2551-157 A or B 12-19-33 Willi Smith Langle is actived outside holdiness or preservation requirements, initial to authorize analysis: PH Str:PS 7 2551-157 A or B 12-19-33 Willi Smith Langle is received in 180 within 2 hours no preservation needed Tample received in 180 within 2 hours no preservation needed			1	WMARSS EFFLUENT	12/17/2023	-12/18/2023	12:00 - 12:00	AQ	P-1000	Composite	1	_	CBOD
Comments: Laboratory Comments: PH Str: PS 7 2551-157 Date Time Relinquished by: Refrigator/ Initials A or B 12-19-23 William State 12-19-23 William State It sample received in lab within 2 hours no preservation needed	29899-23			WMARSS INFLUENT	12/17/2023	-12/18/2023	12:00 - 12:00	AQ	P-125	Composite	1		BOD
Sample is received outside holdtimers or preservation requirements, initial to authorize analysis: Date Time Relinquished by: Placed in Refrigator/ Initials A or B 12-19-23 Willis Smith 13-19-23 Willis	19900-23	1	+	WMARSS INFLUENT	12/17/2023	-12/18/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
PA Strips 72551-157 Date Time Relinquished by: Placed in Refrigator/ Initials A or B 12-19-33 Willis Suffy A or B 12-19-33 Willis Suffy A or B 12-19-33 Willis Suffy A or B 12-19-23 Willis Suffy A or B 13-19-23 Willis Suffy A or B 14-19-23 Willis Suffy A or B 15-19-24 Willis Suffy A or B 16-19-19-19-19-19-19-19-19-19-19-19-19-19-													
Date Time Relinquished by: Placed in Refrigator/ Initials A or B 12-19-23 Willis Smith 12-19-23 Willis Smith 12-19-23 Willis Smith 13.19.23 Willis Smith 13.19.23 Willis Smith 14.19.23 Willis Smith 15.19.23 Willis Smith 18.19.23 Willis Smith 18.19.23 Willis Smith 19.19.23	Common										Labor	atony Comm	nosto
2-19-23 High Beatretana A or B 12-19-23 8:57 Willis Smith 12-19-23 11:13 Link Land 1 sample received in lab within 2 hours no preservation needed	nample is received outsic	de holdtimers or			Refrigator/	Date	Time		Received	i by:			
	2/18/23	1 2 4		Beatnetana	A or B	1		ĺ.	Mis S	mtt not	If sample	about in lab with	
IR - (Thermometer ID: 3785	, - 0 10	W	5	An serve a Ohmon	A or B			Ju	J. J.			794	

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID:
WACOWMARSS-010224
LAB CONTACT:
SHAY OCHOA
REPORT DATE:
1.2.24

Bio Chem Lab, Inc. Form.28.Rev.3-2016



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS

Contact: Scott Espen/Michael Garcia

TX Permit No.: TX0026506

Address: 1147 Treatment Plant Road

Phone No.: 254-299-2450

WQ Permit No.: WQ0011071-001

Waco, Texas 76707

FAX No.: 254-299-2453

Collected by:

	Obs Corr Temp	Sample Name, Site Description or Case Number	Date	Collection	Time	Matrix	Container Number/ Volume /	Grab or Composite	Preser- vation	Verified	Analysis Requested
Laboratory							Туре				
0003.23	8.0 7.9	WMARSS EFFLUENT	12/18/2023-12/	19/2023 1	2:00 - 12:00	AQ	P-2000	Composite	1		TSS
000H-23		WMARSS EFFLUENT	12/18/2023-12/	19/2023 1	2:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
00523		WMARSS EFFLUENT	12/18/2023-12/	19/2023 1	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
0006:23	V	WMARSS INFLUENT	12/18/2023-12/	19/2023 1	12:00 - 12:00	AQ	P-125	Composite	1		BOD
00011-23	V	WMARSS INFLUENT	12/18/2023-12/	19/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
N THE											
Comment	s:								Labora	tory Comm	nents:
											: 7265-1-1576
										DIVITE	1.7200.1.1010
									L.	P	
ample is received outsid	e holdtime/s or preservation	n requirements, initial to authorize analysis:	Placed in						1	- P	
ample is received outsid	e holdtime/s or preservation	Relinquished by:	Placed in Refrigator/	Date	Time		Received	by:		- P	
1855 70	Time	Relinquished by:	Refrigator/ Initials			w.	Received	by:			
1855 70	2000	Relinquished by:	Refrigator/ Initials			sort (1)	Received	by:			
Date	Time	Relinquished by:	Refrigator/ Initials A or B	L-20-23	3 8:56 P	and fu	Received	by:			
188	Time	Relinquished by:	Refrigator/ Initials A or B A or B		3 8:56 P	an All:	Received	by: Lanel			2 hours no presevation needed
Date	Time	Relinquished by:	Refrigator/ Initials A or B	L-20-23	3 8:56 P	M All:	Received	by: The			

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID:
WACOWMARSS-010224
LAB CONTACT:
SHAY OCHOA
REPORT DATE:
1.2.24

Bio Chem Lab, Inc. Form.28.Rev.3-2016



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

Sample ID	Obs Corr Terr Temp °C °C	Sample Name, Site	EMM	Collection			Container	Grab or	Preser-	Verified	CHANGE OF SECTION
Laborator	y Use Only	Description or Case Number			Time	Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
0135-23	9.3 9.2	WMARSS EFFLUENT	12/19/2023	-12/20/2023	12:00 - 12:00	AQ	P-2000	Composite	1		TSS
10136-23		WMARSS EFFLUENT	12/19/2023	-12/20/2023	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.5	NH3
0137-23		WMARSS EFFLUENT	12/19/2023	-12/20/2023	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
0138-23		WMARSS INFLUENT	12/19/2023	-12/20/2023	12:00 - 12:00	AQ	P-125	Composite	1		BOD
10/39-23	10	WMARSS INFLUENT	12/19/2023	-12/20/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.5	NH3
			1122								
-											
Commen	ts:						arca-A		Labora	atory Comi	ments:
ample is received outsi	ide holdtime/s or preserva	tion requirements, initial to authorize analysis:							PH	strips	: 7255-1-1576
Date	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	l by:			
2-20-23	12:10 PM	BoothicHara	A or B	12-21-2	3 9:10	W	illis	It			
3 31 92	11:53	Walls Smith	A or B	12.21.2	3 11:53	Ch	nis Dic	tuy	If sample rece	rived in lab within	n 2 hours no presevation needed
Y-41-42			A or B								IR-1

Container: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak VOA -40ml vial C -Cubitainer

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

 Page 1 of 10
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Date / Time Analyzed

Analyst Initials

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-010824
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.8.24

					EFFL	UENT
FIELD DATA / SAMPLE DESCR	IPTION					
Collection Point		EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
Date/ Time Collected		12.20.23-12.21.23 / 12:00-12:00	12.21.23-12.22.23 / 12:00-12:00	12.22.23-12.23.23 / 12:00-12:00	12.23.23-12.24.23 / 12:00-12:00	12.24.23-12.25.23 / 12:00-12:00
Date/ Time Received by Lab		12.22.23 / 13:46	12.22.23 / 13:46	12.25.23 / 11:58	12.25.23 / 11:58	12.26.23 / 11:48
Parent Laboratory Sample ID		30163-23, 30164-23, 30165-23	30158-23, 30159-23, 30160-23	30177-23, 30178-23, 30179-23	30184-23, 30185-23, 30186-23	30285-23, 30286-23 30287-23
Sampling Description/Procedure		Client Collected				
Sample Type		Composite	Composite	Composite	Composite	Composite
Sample Matrix		Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPV
Collector		B. Hand	D. Barry	D. Barry	R. Brinkman	L. Huddlestor
PARAMETER / UNIT / METHOD)					
CBOD _{5,} mg/L	SM 5210 B	< 2	2.	Q < 2	Q B1 < 2	2
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	,
Date / Time Analyzed		12.22.23 / 14:00	12.22.23 / 14:00	12.25.23 / 13:00	12.25.23 / 13:00	12.27.23 / 10:00
Analyst Initials		ARJ	ARJ	AJ	AJ	LD / AR.
					Γ	Γ
TSS, mg/L	SM 2540 D	< 2	< 2	< 2	< 2	7
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	,
Date / Time Analyzed		12.27.23 / 09:50	12.27.23 / 09:50	12.27.23 / 09:50	12.27.23 / 09:50	12.27.23 / 09:50
Analyst Initials		МН	МН	МН	МН	MF
NH ₃ N, mg/L	SM 4500 $\mathrm{NH_3}$ B, D	< 0.10	< 0.10	0.13	< 0.10	2.30
Reporting Limit, mg/L		0.10	0.10	0.10	0.10	0.50
Dilution Factor		1	1	1	1	

12.26.23 / 21:10

SV

12.26.23 / 21:10

sv

12.26.23 / 21:10

SV

12.26.23 / 21:10

sv

12.27.23 / 21:20

SV

Bio Chem Lab, Inc. Page 2 of 10 Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING

REPORT ID: WACOWMARSS-010824 LAB CONTACT: SHAY OCHOA REPORT DATE: 1.8.24

INFLUENT

PO BOX 2570 WACO, TEXAS 76702-2570

FIELD DATA / SAMPLE DESCRIPTION					
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	12.20.23-12.21.23 / 12:00-12:00	12.21.23-12.22.23 / 12:00-12:00	12.22.23-12.23.23 / 12:00-12:00	12.23.23-12.24.23 / 12:00-12:00	12.24.23-12.25.23 / 12:00-12:00
Date/ Time Received by Lab	12.22.23 / 13:46	12.22.23 / 13:46	12.25.23 / 11:58	12.25.23 / 11:58	12.26.23 / 11:48
Parent Laboratory Sample ID	30166-23, 30167-23	30161-23, 30162-23	30180-23, 30181-23	30187-23, 30188-23	30288-23, 30289-23
Sampling Description/Procedure	Client Collected				
Sample Type	Composite	Composite	Composite	Composite	Composite
Sample Matrix	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector	B. Hand	D. Barry	D. Barry	R. Brinkman	L. Huddleston
		<u> </u>			

PARAMETER / UNIT / METHOD						
BOD _{5,} mg/L	SM 5210 B	210.	140.	159.	128.	296.
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.22.23 / 14:00	12.22.23 / 14:00	12.25.23 / 13:00	12.25.23 / 13:00	12.27.23 / 10:00
Analyst Initials		ARJ				

NH ₃ N, mg/L	SM 4500 NH ₃ B, D	26.3	21.3	22.2	20.0	13.9
Reporting Limit, mg/L		0.50	0.50	0.50	0.50	0.50
Dilution Factor		5	5	5	5	5
Date / Time Analyzed		12.26.23 / 21:10	12.26.23 / 21:10	12.26.23 / 21:10	12.26.23 / 21:10	12.27.23 / 21:20
Analyst Initials		SV	SV	SV	SV	SV

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:
NONE TO REPORT.

Page 3 of 10 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO				
WMARSS				
DISCHARGE MONITORING				
REPORT ID: WACOWMARSS-010824				
LAB CONTACT: SHAY OCHOA				
REPORT DATE: 1.8.24				

SUMMARY OF ANALYTICAL BATCH QC

BOD

SETUP DATE	SETUP ID	BATCH ID	
12.22.23	B-122223-18	B-122223-18-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30161-23	138	130	3.0
30166-23	220	227	1.6
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.17	0.12	182	171

SETUP DATE	SETUP ID	BATCH ID	
12.25.23	B-122523-19	B-122523-19-01	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30187-23	127	122	2.0
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.07	0.02	179	Q2 163

SETUP DATE	SETUP ID	BATCH ID	
12.27.23	B-122723-20	B-122723-20-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30299-23	197	202	1.3
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.02	0.14	170	217

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.27.23	T-122723-13	T-122723-13-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30119-23	42.5	39	4.3
30123-23	2610	2630	0.4
BLANK, mg/L	<2	LCS % REC	93.4

NH3N

SETUP DATE:	SETUP ID:	BATCH ID:	
12.26.23	N-122623-18	N-122623-18-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
30139-23	24.7	24.8	0.2
30176-23	32.5	33.6	1.6
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
30185-23	0.07	1.92	92.3
30185-23	0.07	1.94	93.3
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	101.6	102.4	

SETUP DATE:	SETUP ID:	BATCH ID:	
12.27.23	N-122723-20	N-122723-20-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
30316-23	28.0	28.5	0.9
30332-23	21.6	21.9	0.7
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
30327-23	0.04	1.93	94.8
30327-23	0.04	1.89	92.8
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	101.4	102.2	

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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO								
WMARSS								
DISCHARGE MONITORING								
REPORT ID:	WACOWMARSS-010824							
LAB CONTACT:	SHAY OCHOA							
REPORT DATE:	1.8.24							

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TSS

% DEV: PRECISION ACCEPTABLE RANGE 0-5% LCS % REC: ACCEPTABLE RECOVERY 80-120% TSS BLANK: ≤2.0 mg/L

NH₃N

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-010824
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.8.24

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.
Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
Q3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
QS3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be
	statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
Q4	Sample specific duplicate precision outside desired range.
QM1	Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
QM2	Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
QM3	Microbiology precision outside desired range.
B1	Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
B2	Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
В3	Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
W1	Result is an average of multiple weighing / drying cycles.
С	Reported result over the laboratory's calibration range
C1	Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
J5	Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
ND	Not detected
V	Additional sample volume would have been required to meet analytical method specifications.
HT	Sample analysis performed outside method / regulatory prescribed holding time.
T	Sample received outside method / regulatory prescribed requirements for thermal preservation.
P	Sample received outside method / regulatory prescribed requirements for pH preservation.
Α	Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
N	The associated analysis was performed by a network / sub-contract laboratory.
L	Laboratory Error
PW	Potable Water
NPW	Non-Potable Water

ADDITIONAL NOTES:

Z

Refer to additional notes / supplemental narrative

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by:

Sample ID Obs Temp *C Corr Temp		Sample Name, Site	THE SECTION	Collection			Container	Grab or	Preser-	Verified	
		Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
15823	0.6 65	WMARSS EFFLUENT	12/21/2023	12/22/2023	12:00 - 12:00	AQ	P-2000	Composite	1	/	TSS
25923		WMARSS EFFLUENT	12/21/2023	12/22/2023	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3
016023		WMARSS EFFLUENT	12/21/2023	12/22/2023	12:00 - 12:00	AQ	P-1000	Composite	1	_	CBOD
161.23	1/1/	WMARSS INFLUENT	12/21/2023	12/22/2023	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
0162-23	VV	WMARSS INFLUENT	12/21/2023	12/22/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
	THE SELLIN										
					THE P						
omment	s:								Labora	atory Comr	nents:
									M	154	nents: 05: 7255-1-11570
									Pr	1 011.9	D. 1-
ple is received outsid	e holdtime/s or preservation	requirements, initial to authorize analysis:	Placed in		_				1		
Date	Time	Relinquished by:	Refrigator/	Date	Time		Received	l by:			
1 1 4			A or B				. 1		16.11		
2/22/23	15:00 M	Doudborn RBrinkman	742	12/24	123 12:34,2 23 1341	m R	Brink	MAN	473		
. /	7. 11.1. 0.4	00.	A or B	17 77.	27 17/1	1/11).	T				
12/23	13:46 PM	12Drin Kundu	- ChesT	17.77.7	5 1590	HIL	50/1 U	avul	If sample rece	eived in lab within	2 hours no presevation needed
			A or B						104		Thermometer ID: 3785
			1	I					I Paul		Thermometer iD. 5705

REPORT DATE:	LAB CONTACT:	REPORT ID:	DISCHAR		DECEMBER 2
1.8.24	SHAY OCHOA	WACOWMARSS-010824	DISCHARGE MONITORING	WMARSS	DECEMBER 2023 - CITY OF WACO

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707

TELEPHONE: (254) 299-2450

Page 1 of 1

FAX: (254) 299-2453

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Bathiztano

	Description or Cose	Sample Name, Site Collection				Container	Crob or	Preser-	Verified	
Use Only	Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
0.6 6.5	WMARSS EFFLUENT	12/20/2023-	12/21/2023	12:00 - 12:00	AQ	P-2000	Composite	1	/	TSS
1 1	WMARSS EFFLUENT	12/20/2023-	12/21/2023	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
	WMARSS EFFLUENT	12/20/2023-	12/21/2023	12:00 - 12:00	AQ	P-1000	Composite	1	_	CBOD
111	WMARSS INFLUENT	12/20/2023-	12/21/2023	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
VV	WMARSS INFLUENT	12/20/2023-	12/21/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
s:								Labora	tory Comr	nents:
								10+1	Stri	05: 7255-1-1576
holdtime/s or preservation	requirements, initial to authorize analysis:							1		
Time	Relinquished by:	Refrigator/ Initials	Date	Time		Received	i by:			
12.12pm	Beatricters	BH	12/22/23	12.34pm	/	RBrinkmAN				
1341 pm	RBrinkum	chest	12:22-2	3 1346	All	son J	anek	If sample rece	ived in lab within	2 hours no presevation needed
17 16/1		A or B		3			2 1			
5	s : holdtime/s or preservation Time	WMARSS EFFLUENT WMARSS INFLUENT WMARSS INFLUENT WMARSS INFLUENT WMARSS INFLUENT WMARSS INFLUENT	WMARSS EFFLUENT 12/20/2023- WMARSS INFLUENT 12/20/2023- WMARSS INFLUENT 12/20/2023- WMARSS INFLUENT 12/20/2023- WMARSS INFLUENT 12/20/2023- WMARSS INFLUENT 12/20/2023- Time Relinquished by: Placed in Refrigator/ Initials	WMARSS EFFLUENT 12/20/2023-12/21/2023 WMARSS EFFLUENT 12/20/2023-12/21/2023 WMARSS INFLUENT 12/20/2023-12/21/2023 WMARSS INFLUENT 12/20/2023-12/21/2023 WMARSS INFLUENT 12/20/2023-12/21/2023 **Time Relinquished by: Placed in Refrigator/ Initials Date Ini	WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 WMARSS INFLUENT 12/20/2023-12/21/2023 Time Influent 12/20/2023-12/21/2023	WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ WMARSS INFLUENT 12/20/2023-12/21/2	WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-1000 WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-1000 WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-125 WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-250 WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-250 **Time Relinquished by: Placed in Refrigator/ Initials Received Initials Received Initials Placed In Refrigator/ Initials Received Initials Received Initials Received Initials I	WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-1000 Composite WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-1000 Composite WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-125 Composite WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-250 Composite WMARSS INFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-250 Composite AQ P-250 AQ P-250 AQ P-250 AQ AQ P-250 AQ AQ P-250 AQ AQ P-250 AQ AQ AQ AQ AQ AQ AQ A	WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-1000 Composite 1,2	WMARSS EFFLUENT 12/20/2023-12/21/2023 12:00 - 12:00 AQ P-1000 Composite 1,2 1,0

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

Page 1 of 1

FAX: (254) 299-2453

Container: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak VOA -40ml vial C -Cubitainer

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707

CITY OF WACO

TELEPHONE: (254) 299-2450

Client/Project:	VVIVIARSS			Contact: Scott Espen/Michael Garcia							TX Permit No.: TX0026506			
Address: 1147	Treatment l	Plant	Road	Phone No.: 254-299-2450						WQ Permit No.: WQ0011071-001				
Waco,	Texas 7670	7		FAX No.: 254-299-2453						Co	llected by:	D. Jan-		
Sample ID	ple ID Obs Corr Temp		Sample Name, Site	Collection				Container	Grab or	Preser-	Verified			
Laboratory Use Only			Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested		
3017-13	5.2 5.	1	WMARSS EFFLUENT	12/22/2023	-12/23/2023	12:00 - 12:00	AQ	P-2000	Composite	1	~	TSS		
30178-23			WMARSS EFFLUENT	12/22/2023	-12/23/2023	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3		
30179-23	1		WMARSS EFFLUENT	12/22/2023	-12/23/2023	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD		
30180-23			WMARSS INFLUENT	12/22/2023	-12/23/2023	12:00 - 12:00	AQ	P-125	Composite	1	-	BOD		
30181-23	VV		WMARSS INFLUENT	12/22/2023	-12/23/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3		
											LUME			
Comment	s:									Labora	atory Comi	ments:		
If sample is received outsid	le holdtime/s or pre	servation	requirements, initial to authorize analysis:							51	L.B.	7255-1-1576		
Date	Time		Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received by:						
12/28/23	12:00			A or B	12/25/2	-3 1000AN	RB	omkru	~					
12/25/23	11:58A	n	Brokman		12.25.2	-3 1000AN	1	36		If sample rece	eived in lab within	n 2 hours no presevation needed		
				A or B								Thermometer ID: 3785		

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING

PORT ID:

WACOWMARSS-010824

B CONTACT:

SHAY OCHOA

PORT DATE:

1.8.24

Bio Chem Lab, Inc. Form.28.Rev.3-2016

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450 FAX: (254) 299-2453

Page 1 of 1

Client/Project: WMARSS

Contact: Scott Espen/Michael Garcia

TX Permit No.: TX0026506

Address: 1147 Treatment Plant Road

Phone No.: 254-299-2450

WQ Permit No.: WQ0011071-001

Waco, Texas 76707

FAX No.: 254-299-2453

Collected by: RBrinkman

Sample ID	Obs Corr Temp	Sample Name, Site		Collection			Container		Preser-	Verified	
Laboratory	r Use Only	Description or Case Number	D	ate	Time	Matrix	Volume / Type	Grab or Composite	vation		Analysis Requested
	47 46	WMARSS EFFLUENT	12/23/2023	-12/24/2023	12:00 - 12:00	AQ	P-2000	Composite	1	1	TSS
30185-23		WMARSS EFFLUENT	12/23/2023	-12/24/2023	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
30186-23		WMARSS EFFLUENT	12/23/2023	-12/24/2023	12:00 - 12:00	AQ	P-1000	Composite	1	1	CBOD
30187-23	1//	WMARSS INFLUENT	12/23/2023	-12/24/2023	12:00 - 12:00	AQ	P-125	Composite	1	1	BOD
30188-23		WMARSS INFLUENT	12/23/2023	-12/24/2023	12:00 - 12:00	AQ	P-250	Composite	1,2	1.5	NH3
Comment									Labora	tory Comi	monto
Comment									CHILD SECTION		
									5	h. 85-	725511576
sample is received outsid	e holdlime/s or preservation	requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	i by:			
	1200 pm	RB1. NKman	A of B	12/25/2	3 1000A	m R	Bonnten	al			
2/24/23		1	A or B				1				
2/24/23	11:58 AM	RBANKMA	Chest	12.25.2	3 1158	1	28		If sample rece	ived in lab within	2 hours no presevation needed

Container: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak VOA -40ml vial C -Cubitainer

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID:
WACOWMARSS-010824
LAB CONTACT:
SHAY OCHOA
REPORT DATE:
1.8.24



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 Collected by: Lewis bfuddlestor FAX No.: 254-299-2453

	obs C	°C	Sample Name, Site	BILL	Collection			Container	Crob or	Preser-	Verified	
Laboratory Use	se Only		Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
1028523 7.1	0	6.9	WMARSS EFFLUENT	12/24/23	-12/25/23	12:00 - 12:00	AQ	P-2000	Composite	1	1	TSS
028623			WMARSS EFFLUENT	12/24/23	-12/25/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
0287-23			WMARSS EFFLUENT	12/24/23	-12/25/23	12:00 - 12:00	AQ	P-1000	Composite	1	1	CBOD
0288-23			WMARSS INFLUENT	12/24/23	-12/25/23	12:00 - 12:00	AQ	P-125	Composite	1	1	BOD
10289.23		1	WMARSS INFLUENT	12/24/23	-12/25/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Comments:										Labora	tory Com	nents:
				Placed in						Sh	ips-	7255 / 1576
Date	Tir	ne	, ,	Refrigator/ Initials	Date	Time		Received	by:			
12/25/23 /	12:0	pr-	Lux	A or B	12-26-	33 9:30	AM (i)	Illo Sn	utt			
	1:1	2 Km	Wallis South	7 01 5	12/26/2	3 1148	6	wo !		if sample recei	ved in lah within	2 hours no presevation needed
1-26-23	,			A or B	1 ,-		1			- ampir recei	The second section	a manual no preservon necocu

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING

PORT ID:

WACOWMARSS-010824
B CONTACT:

SHAY OCHOA
PORT DATE:

1.8.24

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 *ANALYTICAL REPORT*

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Analyst Initials

DECEMBER 2023 - CITY OF WACO WMARSS

DISCHARGE MONITORING
REPORT ID: WACOWMARSS-011624A

LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.16.24

EFFLUENT

					EFFL	UEINI
FIELD DATA / SAMPLE DESCRIP	TION					
Collection Point		EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
Date/ Time Collected		12.25.23-12.26.23 / 12:00-12:00	12.26.23-12.27.23 / 12:00-12:00	12.27.23-12.28.23 / 12:00- 12:00	12.28.23-12.29.23 / 12:00· 12:00	12.29.23-12.30.23 / 12:00 12:00
Date/ Time Received by Lab		12.27.23 / 11:15	12.28.23 / 11:23	12.29.23 / 11:27	12.29.23 / 13:27	1.1.24 / 11:4
Parent Laboratory Sample ID		30389-23, 30390-23, 30391-23	30523-23, 30524-23, 30525-23	30565-23, 30566-23, 30567-23	30590-23, 30591-23, 30592-23	100-24, 101-24, 102-2
Sampling Description/Procedure		Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type		Composite	Composite	Composite	Composite	Composit
Sample Matrix		Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector		B. Hand	B. Hand	B. Hand	B. Hand	R. Meltor
		_				
PARAMETER / UNIT / METHOD						
CBOD _{5,} mg/L	SM 5210 B	Q B1 < 2	B1 < 2	< 2	Q 2.	B1 <
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	
Date / Time Analyzed		12.28.23 / 10:30	12.29.23 / 12:00	12.29.23 / 12:00	12.29.23 / 14:00	1.1.24 / 11:5
Analyst Initials		LD / ARJ	LD / ARJ	LD / ARJ	LD / ARJ	A
				r		
TSS, mg/L	SM 2540 D	< 2	< 2	< 2	< 2	< 2
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	
Date / Time Analyzed		12.28.23 / 09:30	12.29.23 / 09:40	1.2.24 / 09:30	1.2.24 / 09:30	1.2.24 / 09:30
Analyst Initials		МН	МН	LD	LD	LC
				r		
NH₃N, mg/L	SM 4500 NH ₃ B, D	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Reporting Limit, mg/L		0.10	0.10	0.10	0.10	0.1
Dilution Factor		1	1	1	1	
Date / Time Analyzed		12.28.23 / 19:10	1.2.24 / 21:05	1.2.24 / 21:05	1.2.24 / 21:05	1.3.24 / 21:3

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-011624A
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.16.24

EFFLUENT

FIELD DATA / SAMPLE DESCRIPTION	
Collection Point	EFFLUENT
Date/ Time Collected	12.30.23-12.31.23 / 12:00- 12:00
Date/ Time Received by Lab	1.1.24 / 11:47
Parent Laboratory Sample ID	105-24, 106-24, 107-24
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	R. Melton

PARAMETER / UNIT / METHOD		
CBOD _{5,} mg/L	SM 5210 B	< 2
Reporting Limit, mg/L		2.
Dilution Factor		1
Date / Time Analyzed		1.1.24 / 11:55
Analyst Initials		AJ

TSS, mg/L	SM 2540 D	< 2
Reporting Limit, mg/L		2.
Dilution Factor		1
Date / Time Analyzed		1.2.24 / 09:30
Analyst Initials		LD

NH₃N, mg/L	SM 4500 NH ₃ B, D	< 0.10
Reporting Limit, mg/L		0.10
Dilution Factor		1
Date / Time Analyzed		1.3.24 / 21:30
Analyst Initials		SV

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 **DECEMBER 2023 - CITY OF WACO WMARSS** DISCHARGE MONITORING

REPORT ID: WACOWMARSS-011624A LAB CONTACT: SHAY OCHOA REPORT DATE: 1.16.24

INFLUENT

FIELD DATA / SAMPLE DESCRIPTION					
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	12.25.23-12.26.23 / 12:00-12:00	12.26.23-12.27.23 / 12:00-12:00	12.27.23-12.28.23 / 12:00- 12:00	12.28.23-12.29.23 / 12:00- 12:00	12.29.23-12.30.23 / 12:00- 12:00
Date/ Time Received by Lab	12.27.23 / 11:15	12.28.23 / 11:23	12.29.23 / 11:27	12.29.23 / 13:27	1.1.24 / 11:47
Parent Laboratory Sample ID	30392-23, 30393-23	30526-23, 30527-23	30568-23, 30569-23	30593-23, 30594-23	103-24, 104-24
Sampling Description/Procedure	Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type	Composite	Composite			
Sample Matrix	Aqueous-NPW	Aqueous-NPW		·	Aqueous-NPW
Sample Matrix	Aqueous-INF VV	Aqueous-INF W	Aqueous-INF VV	Aqueous-INF VV	Aqueous-INF VV
Collector	B. Hand	B. Hand	B. Hand	B. Hand	R. Melton

PARAMETER / UNIT / METHOD)					
BOD _{5,} mg/L	SM 5210 B	45.	183.	164.	Q 297.	209.
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.28.23 / 10:30	12.29.23 / 12:00	12.29.23 / 12:00	12.29.23 / 14:00	1.1.24 / 11:55
Analyst Initials		LD / ARJ	LD / ARJ	LD / ARJ	LD / ARJ	AJ

NH₃N, mg/L	SM 4500 NH ₃ B, D	23.6	16.0	18.3	20.1	25.1
Reporting Limit, mg/L		0.50	0.50	0.50	0.50	0.50
Dilution Factor		5	5	5	5	5
Date / Time Analyzed		12.28.23 / 19:10	1.2.24 / 21:05	1.2.24 / 21:05	1.2.24 / 21:05	1.3.24 / 21:30
Analyst Initials		SV	SV	SV	SV	sv

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-011624A
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.16.24
INFLUENT

FIELD DATA / SAMPLE DESCRIPTION	
Collection Point	INFLUENT
Date/ Time Collected	12.30.23-12.31.23 / 12:00- 12:00
Date/ Time Received by Lab	1.1.24 / 11:47
Parent Laboratory Sample ID	108-24, 109-24
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	R. Melton

PARAMETER / UNIT / METHOD		
BOD _{5,} mg/L	SM 5210 B	215.
Reporting Limit, mg/L		2.
Dilution Factor		1
Date / Time Analyzed		1.1.24 / 11:55
Analyst Initials		AJ

NH ₃ N, mg/L	SM 4500 NH ₃ B, D	25.7
Reporting Limit, mg/L		0.50
Dilution Factor		5
Date / Time Analyzed		1.3.24 / 21:30
Analyst Initials		sv

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS : NONE TO REPORT.

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REPORT DATE:

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO			
WMARSS			
DISCHARGE MONITORING			
REPORT ID: WACOWMARSS-011624A			
LAB CONTACT:	SHAY OCHOA		

1.16.24

SUMMARY OF ANALYTICAL BATCH QC

BOD

SETUP DATE	SETUP ID	BATCH ID	
12.28.23	B-122823-21	B-122823-21-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30401-23	114	124	4.2
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.14	0.12	Q2 164	Q2 165

SETUP DATE	SETUP ID	BATCH ID	
12.29.23	B-122923-23	B-122923-23-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30526-23	187	182	1.4
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.19	0.18	171	173

SETUP DATE	SETUP ID	BATCH ID	
12.29.23	B-122923-23	B-122923-23-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30577-23	148	170	6.9
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
Q1 0.31	Q1 0.28	171	182

SETUP DATE	SETUP ID	BATCH ID	
1.1.24	B-010124-01	B-010124-01-01	
DUPLICATE	RESULT 1	RESULT 2	% DEV
108-24	195	238	9.9
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.15	0.09	173	170

TSS

100			
SETUP DATE	SETUP ID	BATCH ID	
12.28.23	T-122823-14	T-122823-14-02	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30230-23	83	80	1.8
30247-23 Q4	33	41	10.8
BLANK, mg/L	<	LCS % REC	102.5

SETUP DATE	SETUP ID	BATCH ID	
12.29.23	T-122923-15	T-122923-15-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30509-23	100	108.6	4.1
30513-23	6340	5980	2.9
BLANK, mg/L	<2	LCS % REC	85.9

SETUP DATE	SETUP ID	BATCH ID	
1.2.24	T-010224-01	T-010224-02	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30486-23	4900	4900	0.0
30496-23	33	36	3.6
BLANK, mg/L	< 2	LCS % REC	97.3

SETUP DATE	SETUP ID	BATCH ID	
1.2.24	T-010224-01	T-010224-01-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
30622-23	120	116	1.7
BLANK, mg/L	< 2	LCS % REC	97.3

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 *ANALYTICAL REPORT*

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO					
WMARSS					
DISCHARGE MONITORING					
REPORT ID:	WACOWMARSS-011624A				
LAB CONTACT:	SHAY OCHOA				
REPORT DATE:	1.16.24				

NH3N

SETUP DATE:	SETUP ID:	BATCH ID:	
12.28.23	N-122823-21	N-122823-21-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
30361-23	30.4	30.6	0.2
30419-23	25.7	25.9	0.4
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
30390-23	0.02	1.92	95.0
30390-23	0.02	1.96	97.0
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	102.6	101.4	

SETUP DATE:	SETUP ID:	BATCH ID:	
01.02.24	N-010224-01	N-010224-01-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
30527-24	16.0	16.1	0.3
30582-24	27.6	27.9	0.5
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
30619-24	0.04	1.91	93.6
30619-24	0.04	1.87	91.6
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	101.4	101.8	

SETUP DATE:	SETUP ID:	BATCH ID:	
01.03.24	N-010324-03	N-010324-03-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
109-24	25.7	26.0	0.6
219-24	64.0	65.5	1.2
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
230-24	0.10	2.03	96.7
230-24	0.10	2.08	99.2
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	103.6	104.8	

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10%
BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L
CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L
LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L
LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TSS

% DEV: PRECISION ACCEPTABLE RANGE 0-5% LCS % REC: ACCEPTABLE RECOVERY 80-120% TSS BLANK: ≤2.0 mg/L

NH₃N

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.





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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-011624A
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.16.24

DECEMBER 2023 - CITY OF WACO

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data	. Refer to QA/QC Report of the affected data for specific details.

- Q1 Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
- Q2 LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
- Q3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
- QS3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be

statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.

- Q4 Sample specific duplicate precision outside desired range.
- QM1 Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
- QM2 Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
- QM3 Microbiology precision outside desired range.
- B1 Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
- B2 Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
- B3 Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
- W1 Result is an average of multiple weighing / drying cycles.
- C Reported result over the laboratory's calibration range
- C1 Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
- J5 Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
- ND Not detected
- V Additional sample volume would have been required to meet analytical method specifications.
- HT Sample analysis performed outside method / regulatory prescribed holding time.
- T Sample received outside method / regulatory prescribed requirements for thermal preservation.
- P Sample received outside method / regulatory prescribed requirements for pH preservation.
- A Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
- N The associated analysis was performed by a network / sub-contract laboratory.
- L Laboratory Error
- PW Potable Water
- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

Sample ID .	Obs Col	rr Temp *C	Sample Name, Site	Collectio	n		Container		Preser-	Verified	
Laborator	y Use Only		Description or Case Number	Date	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
30389.23	5.1 5	(A)	WMARSS EFFLUENT	12/25/23-12/26/23	12:00 - 12:00	AQ	P-2000	Composite	1	1	TSS
0390-23		,	WMARSS EFFLUENT	12/25/23-12/26/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	-	NH3
0391-23			WMARSS EFFLUENT	12/25/23-12/26/23	12:00 - 12:00	AQ	P-1000	Composite	1	/	CBOD
0392-23		/	WMARSS INFLUENT	12/25/23-12/26/23	12:00 - 12:00	AQ	P-125	Composite	1	1	BOD
0393.28	V .		WMARSS INFLUENT	12/25/23-12/26/23	12:00 - 12:00	AQ	P-250	Composite	1,2		NH3
Comment	ts:								Labora	tory Comm	ments:
	de holdtime/s or p	reservation	requirements, initial to authorize analysis:						Sil	195-	_ 7255-1-1576
semple is received outsit				Placed in							
Date	Time	е	Relinquished by:	Refrigator/ Date	Time	u	Received	by:			
	12:25	PM.	Relinquished by:	Refrigator/ Initials A or B /2-2-7-	23 9:08	m [Received	by:			
	0	PM.	Relinquished by: Satmulara Willis Sault	Refrigator/ Initials A or 8 A or 8 12-27- A or B	23 9:08	W/		by:	If sample rece	ived in lab within	2 hours no presevation needed
	12:25	PM.	Relinquished by: Satrulara Willis Suft	Refrigator/ Initials A or B /2-2-7-	23 9:08	1		by:	If sample rece	ived in lab within	2 hours no presevation needed Thermometer ID: 3785

REPORT ID:
LAB CONTACT:
REPORT DATE:

DISCHARGE MONITORING

WACOWMARSS-011624A SHAY OCHOA

	ole ID Obs Corr Temp Temp *C *C Sample Name, Site		Collection			Container	Grab or	Preser- Verified		
Laboratory Use	Only	Description or Case Number	Date	Time	Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
0523.23 6.2	2 6.1	WMARSS EFFLUENT	12/26/23-12/27/23	12:00 - 12:00	AQ	P-2000	Composite	1	/	TSS
0524.23	1	WMARSS EFFLUENT	12/26/23-12/27/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
052523		WMARSS EFFLUENT	12/26/23-12/27/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
-571 77	1	WMARSS INFLUENT	12/26/23-12/27/23	12:00 - 12:00	AQ	P-125	Composite	1	_	BOD
0521-23 V	A	WMARSS INFLUENT	12/26/23-12/27/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
	ime/s or preservation	requirements, initial to authorize analysis.						The second second	strip	nents:)6:7255-1-1576
	ime/s or preservation	Relinquished by:	Placed in Refrigator/ Date	Time		Received	by:	The second second		
sample is received outside holdtin	Time	Relinquished by:	Refrigator/ Initials A or B A or B 12-28-2	139:10+	1.1	Received	SH	PH	strip	
sample is received outside holdtin	Time	Relinquished by:	Refrigator/ Initials A or B A or B	139:10+	1.1	F + + A.	SH	PH	strip	16:7255-1-1576

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

REPORT ID:
LAB CONTACT:
REPORT DATE:

WACOWMARSS-011624A SHAY OCHOA

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



A or B

Matrix : AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water

Container: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak

TELEPHONE: (254) 299-2450

Thermometer ID: 3785

(1)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 to pH<2 (4)HCl to pH<2 (5)Na₂S₂O₃ (6)NaOH to pH>12 (7)None required (8)Other

Page 1 of 1

FAX: (254) 299-2453

Client/Project:	WMARSS		Contact: Scott Espen/Michael Garcia					TX Permit No.: TX0026506			
Address: 1147	Treatment Plant	t Road		Phone No.:	254-299-2450					WQ Permi	t No.: WQ0011071-001
Waco, Texas 76707			FAX No.: 254-299-2453					Collected by:		BeatricHang	
Sample ID	ID Obs Corr Temp	Sample Name, Site		Collection	1	H	Container	Grab or Composite	Preser-	Verified	
Laborator	ry Use Only	Description or Case Number	Date	ate	Time	Matrix	Number/ Volume / Type		vation		Analysis Requested
30565-23	4.8 4.7	WMARSS EFFLUENT	12/27/23	-12/28/23	12:00 - 12:00	AQ	P-2000	Composite	1	/	TSS
305lde:23	11	WMARSS EFFLUENT	12/27/23	-12/28/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3
30567-23		WMARSS EFFLUENT	12/27/23	-12/28/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
30508.25		WMARSS INFLUENT	12/27/23	-12/28/23	12:00 - 12:00	AQ	P-125	Composite	1		BOD
3051423	VV	WMARSS INFLUENT	12/27/23	-12/28/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Commen	ts:								Labora	atory Comr	nents:
If sample is received outsi	ide holdtime/s or preservatio	n requirements, initial to authorize analysis:								NEWSCHILL	6:7255-1-1576
Date	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	-			
12/28/23	12:224M	Beatric Hana	A or B	12-29-8	23 9:00 A	W.	llio Si ion Ja	att			
12-29-23	11:37 km	Reafix Hava	A or B	12:29:2	3 11:27	Allis	ion Ja	nel	If sample rece	eived in lab within	2 hours no presevation needed

VOA -40ml vial C -Cubitainer

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING

WACOWMARSS-011624A SHAY OCHOA

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

Page 1 of 1

FAX: (254) 299-2453

TELEPHONE: (254) 299-2450

CITY OF WACO

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

7.9 WN WN WN	Description or Case Number MARSS EFFLUENT MARSS EFFLUENT MARSS EFFLUENT MARSS INFLUENT MARSS INFLUENT	Date 12/28/23-12/29/23 12/28/23-12/29/23 12/28/23-12/29/23 12/28/23-12/29/23	Time 12:00 - 12:00 12:00 - 12:00 12:00 - 12:00 12:00 - 12:00 12:00 - 12:00	AQ AQ AQ AQ AQ	Number/ Volume / Type P-2000 P-1000 P-125	Composite Composite Composite Composite Composite	vation 1 1,2 1 1	1.0	Analysis Requested TSS NH3 CBOD
WI WI	MARSS EFFLUENT MARSS EFFLUENT /MARSS INFLUENT	12/28/23-12/29/23 12/28/23-12/29/23 12/28/23-12/29/23	12:00 - 12:00 12:00 - 12:00 12:00 - 12:00	AQ AQ AQ	P-1000 P-1000	Composite Composite		1.0	NH3 CBOD
WI WI	MARSS EFFLUENT MARSS INFLUENT	12/28/23-12/29/23 12/28/23-12/29/23	12:00 - 12:00 12:00 - 12:00	AQ AQ	P-1000	Composite	1,2 1	1.0	CBOD
VI WI	/MARSS INFLUENT	12/28/23-12/29/23	12:00 - 12:00	AQ			1		
N/					P-125	Composite	1		a manual control of the control of t
V	MARSS INFLUENT	12/28/23-12/29/23	12:00 - 12:00	AQ					BOD
				1	P-250	Composite	1,2	1.0	NH3
									ments: 06: 7255-1-1570
r preservation require	Relinquished by:	Refrigator/ D	ate Time		Received	by:			
MAZ MAZ	sodnistana	A or B		PM W	MóS	mit			
	N Mans Sharper	A or B	-23 1327	HIII	50/1 U	anll	If sample rece	ived in lab within	2 hours no presevation needed Thermometer ID: 3785
3	1 pm /	Relinquished by: PM Blatnitand PM Willis Smith	Relinquished by: Placed in Refrigator/ Initials PM Shathaftan A or B 1 PM Whis Smith A or B	Relinquished by: Placed in Refrigator/ Initials PM Blathin Land A or B A or B 12.15 A or B 12.29.23 1327	Placed in Refrigator/ Initials PM Blatnithus A or B A or B A or B A or B A or B	Placed in Refrigator/ Initials PM Blatnit and A or B A or B A or B A or B A or B A or B	Relinquished by: Placed in Refrigator/ Initials PM Blatnitand A or B A or B A or B A or B A or B A or B	preservation requirements, initial to authorize analysis: The Relinquished by: Placed in Refrigator/ Initials A or B Placed in Relinquished by: Refrigator/ Initials A or B 12-29-23 1327 Allison Tayall It sample received in lab within	

REPORT ID:
LAB CONTACT:
REPORT DATE:

CITY OF WACO

Waco, Texas 76707

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

CLIENT IDENTIFICATION INFORMATION: CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by: Richard Welton

Sample ID .	Obs Co	°C	Sample Name, Site		Collection			Container	0	Preser-	Verified	
Laboratory	y Use Only		Description or Case Number	Di	ate	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
100-24	50 €	19	WMARSS EFFLUENT	12/29/23	-12/30/23	12:00 - 12:00	AQ	P-2000	Composite	1	/	TSS
100-24	,	,	WMARSS EFFLUENT	12/29/23	-12/30/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
102-24			WMARSS EFFLUENT	12/29/23	-12/30/23	12:00 - 12:00	AQ	P-1000	Composite	1	/	CBOD
103-24	/	V	WMARSS INFLUENT	12/29/23	-12/30/23	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
104-24	V		WMARSS INFLUENT	12/29/23	-12/30/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
					112							
Comment	ts:						ш			Labora	tory Com	ments:
sample is received outsid	de holdtime/s or	preservation	requirements, initial to authorize analysis.							Sh	48	72559-1576
Date	Tim		Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	i by:		0	
1430/23	12:00		Nuhva Meter	A) or B	1/1/2	y 9:15 g.	. 60	Mynl &	un/	*	Nec	hoom Cooler by Clint
		-	2100/	A or B	1-1-2	4 1147	1	1000	2'E	ACCRECATION OF THE PARTY OF		
1/1/24	11:2	AM	Pufful Eur	A or B	1		1	700		If sample rece	ived in lab within	2 hours no presevation needed

DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING

REPORT ID:
WACOWMARSS-011624A

REPORT DATE:
1.16.24

Bio Chem Lab, Inc. Form.28.Rev.3-2016

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1 TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Collected by: Richard Welfon Waco, Texas 76707 FAX No.: 254-299-2453

	Obs Temp °C	Corr Temp	Sample Name, Site		Collection			Container	0	Preser-	Verified	
Laborato	ry Use Onl	y	Description or Case Number	Date	е	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
105-24	50	49	WMARSS EFFLUENT	12/30/23-1	2/31/23	12:00 - 12:00	AQ	P-2000	Composite	1	1	TSS
06-24			WMARSS EFFLUENT	12/30/23-1	2/31/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
07-24		1	WMARSS EFFLUENT	12/30/23-1	2/31/23	12:00 - 12:00	AQ	P-1000	Composite	1	1	CBOD
108-24			WMARSS INFLUENT	12/30/23-1	2/31/23	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
109-24		/	WMARSS INFLUENT	12/30/23-1	2/31/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
	_				-							
Commen	ts:									Labora	tory Comr	ments:
							H					
	side holdtime/s	or preservation	requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/	Date	Time		Received	by:			
sample is received outs	side holdtime/s				Date / /1/2	7	Chy.	Received	l by:	3×		72551-1576 inn cool del.
sample is received outs	Ti	ime	Relinquished by:	Refrigator/ Initials A or B	, ,	2000	Chy.	· h	by:	3H +R	ech	72551-1576 inn cool del.

DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING

REPORT ID:
WACOWMARSS-011624A

REPORT DATE:
1.16.24

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Page 1 of 4

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MS. TINA DABBS

JULY 2023 - CITY OF WACO						
WMARSS ANALYSIS						
REPORT ID:	WACOWMARSS-080223					
LAB CONTACT:	SHAY OCHOA					
REPORT DATE:	8.2.23					

FIELD DATA / SAMPLE DESCRIPTION

TIELD DATA / SAMILLE DESCRIPTION	
Collection Point	EFFLUENT
Date/ Time Collected	7.19.23-7.20.23 / 12:00-12:00
Date/ Time Received by Lab	7.21.23 / 11:50
Laboratory Sample ID	16909-23, 16910-23, 16911-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand

PARAMETER / UNIT / METHOD

Total Dissolved Solids, mg/L	SM 2540 C	658.
Reporting Limit, mg/L		20.
Dilution Factor		1
Date / Time Analyzed		7.24.23 / 09:00
Analyst Initials		ARJ

Chloride, mg/L	EPA 300.0	120.
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.21.23 / 17:23
Analyst Initials		AJ

Sulfate _, mg/L	EPA 300.0	80.3
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.21.23 / 17:23
Analyst Initials		AJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:

NONE TO REPORT.

JULY 2023 - CITY OF WACO

WMARSS ANALYSIS

8.2.23

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 **4751 TOKIO ROAD WEST, TX 76691** ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

REPORT ID: WACOWMARSS-080223 WACO, TEXAS 76702-2570 LAB CONTACT: SHAY OCHOA REPORT DATE: CLIENT CONTACT: MS. TINA DABBS

SUMMARY OF ANALYTICAL BATCH QC

TDS

DATE	SETUP ID	BATCH ID	
7.24.23	DS-072423-06	DS-072423-06-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
16872-23	208	206	0.5
SPIKE ID:	RESULT 1	RESULT 2	% REC
16887-23	450	900	90.0
		LOQ, %REC	87.0
BLANK, mg/L	<20	LCS, %REC	96.0

CHLORIDE

CHECKIDE			
SETUP DATE	SEQUENCE ID		
7.21.23	IC-072123-15		
SAMPLE ID	RESULT 1	RESULT 2	RPD
16902-23	84.0	83.7	0.3
SPIKE ID:	RESULT 1	RESULT 2	% REC
16902-23	84.0	179.6	95.6
IPCS-1 % REC:	99.5	IPCS-2 % REC:	101.4
LCS % REC:	109.7	LCSD % REC:	109.6
BLANK, mg/L:	<0.50	LOQ % REC:	110.3

SULFATE

SETUP DATE	SEQUENCE ID		
7.21.23	IC-072123-15		
SAMPLE ID	RESULT 1	RESULT 2	RPD
16902-23 Q3	58.8	59.1	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
16902-23	58.8	155.5	96.
IPCS-1 % REC:	100.2	IPCS-2 % REC:	103.5
LCS % REC:	106.8	LCSD % REC:	107.3
BLANK, mg/L:	<0.50	LOQ % REC:	128.9

TDS ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MS % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 20 mg/L

ANION ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BLANK: <RL mg/L OF TARGET ANION LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110%

MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory. Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.





Page 3 of 4

Bio Chem Lab, Inc.
Form. 28. Rev. 3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MS. TINA DABBS

JULY 2023 - CITY OF WACO				
WMARSS ANALYSIS				
REPORT ID:	WACOWMARSS-080223			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.2.23			

BCL PROJECT DATA QUALIFIERS:

Q Failed Quality Data. Refer to QA/QC Report of the affected data for	r specific details

- Q1 Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
- Q2 LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
- Q3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
- QS3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
- Q4 Sample specific duplicate precision outside desired range.
- QM1 Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
- QM2 Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
- QM3 Microbiology precision outside desired range.
- B1 Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
- B2 Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
- B3 Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
- W1 Result is an average of multiple weighing / drying cycles.
- **C** Reported result over the laboratory's calibration range
- C1 Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
- **J5** Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
- ND Not detected
- V Additional sample volume would have been required to meet analytical method specifications.
- HT Sample analysis performed outside method / regulatory prescribed holding time.
- T Sample received outside method / regulatory prescribed requirements for thermal preservation.
- P Sample received outside method / regulatory prescribed requirements for pH preservation.
- A Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
- N The associated analysis was performed by a network / sub-contract laboratory.
- L Laboratory Error
- PW Potable Water
- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

PO BOX 2570 WACO, TEXAS 76702-2570 CLIENT CONTACT: MS. TINA DABBS

CLIENT IDENTIFICATION INFORMATION:

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by: eatm Hand

	Obs Corr Temp Temp °C °C	Sample Name, Site	100	Collection			Container		Preser-	ser- Verified	
Laboratory Use Only		Description or Case Number	D	ate	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
0909-23	10.5 10.3	WMARSS EFFLUENT	7/19/23-	7/20/23	12:00 - 12:00	AQ	P-250	Composite	1		TDS
6910-23		WMARSS EFFLUENT	7/19/23-	7/20/23	12:00 - 12:00	AQ	P-250	Composite	1		CHLORIDE
6911-23	11	WMARSS EFFLUENT	7/19/23	7/20/23	12:00 - 12:00	AQ	P-250	Composite	1		SULFATE
	-										
The state of											
Commen		n requirements, initial to authorize analysis:							Labora	tory Comi	nents:
sample is received outs	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	l by:			
	Time 12/58M	Relinquished by:	Refrigator/ Initials (A) or B	Date 7-21-6		an h	Received	Toby:			
Date	Time	Relinquished by:	Refrigator/ Initials		23 9-18'	an h	Received fills S	rutt	If sample recei	ved in lab within	2 hours no presevation needed

FAX: 254.829.8013 TICAL REPORT REPORT ID:
LAB CONTACT:
REPORT DATE: JULY 2023 - CITY OF WACO
WMARSS ANALYSIS
WACOWMARSS-080223
SHAY OCHOA
8.2.23

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Page 1 of 4

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MS. TINA DABBS

JULY 2023 - CITY OF WACO				
WMARSS ANALYSIS				
REPORT ID:	WACOWMARSS-080223A			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.2.23			

FIELD DATA / SAMPLE DESCRIPTION

TIELD DATA / SAMILLE DESCRIPTION	
Collection Point	EFFLUENT
Date/Time Collected	7.10.23-7.11.23 / 12:00-12:00
Date/ Time Received by Lab	7.12.23 / 11:28
Laboratory Sample ID	15940-23, 15941-23, 15942-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand

PARAMETER / UNIT / METHOD

Total Dissolved Solids, mg/L	SM 2540 C	562.
Reporting Limit, mg/L		20.
Dilution Factor		1
Date / Time Analyzed		7.13.23 / 09:00
Analyst Initials		ARJ

Chloride, mg/L	EPA 300.0	108.
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.13.23 / 12:26
Analyst Initials		AJ

Sulfate, mg/L	EPA 300.0	69.2
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.13.23 / 12:26
Analyst Initials		AJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:

NONE TO REPORT.

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 CLIENT CONTACT: MS. TINA DABBS

	JULY 2023 - CITY OF WACO
	WMARSS ANALYSIS
REPORT ID:	WACOWMARSS-080223A
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	8.2.23

SUMMARY OF ANALYTICAL BATCH QC

TDS

DATE	SETUP ID	BATCH ID	
7.13.23	DS-071323-03	DS-071323-03-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
15783-23	4,938	5,184	2.4
SPIKE ID:	RESULT 1	RESULT 2	% REC
15816-23	1,444	2,038	118.8
BLANK, mg/L	<20	LCS, %REC	93.9

CHLORIDE

	··-··					
SETUP DATE	SEQUENCE ID					
7.12.23 - 7.13.23	IC-071223-08					
SAMPLE ID	RESULT 1	RESULT 2	RPD			
15798-23	108.4	108.3	0.1			
SPIKE ID:	RESULT 1	RESULT 2	% REC			
15798-23	108.4	208.2	99.8			
IPCS-1 % REC:	94.4	IPCS-2 % REC:	93.7			
LCS % REC:	98.0	LCSD % REC:	98.0			
BLANK, mg/L:	<0.50	LOQ % REC:	79.3			

SULFATE

OOLIAIL	OOLI AIL					
SETUP DATE	SEQUENCE ID					
7.12.23 - 7.13.23	IC-071223-08					
SAMPLE ID	RESULT 1	RESULT 2	RPD			
15798-23	50.3	50.6	0.5			
SPIKE ID:	RESULT 1	RESULT 2	% REC			
15798-23	50.3	149.4	99.1			
IPCS-1 % REC:	95.8	IPCS-2 % REC:	95.1			
LCS % REC:	99.0	LCSD % REC:	99.7			
BLANK, mg/L:	<0.50	LOQ % REC:	93.1			

TDS ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MS % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 20 mg/L

% DEV: PRECISION ACCEPTABLE RANGE 0-10%

ANION ANALYSIS

BLANK: <RL mg/L OF TARGET ANION LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110%

MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory. Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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Bio Chem Lab, Inc.
Form. 28. Rev. 3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MS. TINA DABBS

JULY 2023 - CITY OF WACO				
	WMARSS ANALYSIS			
REPORT ID:	WACOWMARSS-080223A			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.2.23			

BCL PROJECT DATA QUALIFIERS:

Q Failed Quality Data. Refer to QA/QC Report of the affected data for	r specific details

- Q1 Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
- Q2 LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
- Q3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
- QS3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
- Q4 Sample specific duplicate precision outside desired range.
- QM1 Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
- QM2 Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
- QM3 Microbiology precision outside desired range.
- B1 Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
- B2 Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
- B3 Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
- W1 Result is an average of multiple weighing / drying cycles.
- C Reported result over the laboratory's calibration range
- C1 Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
- **J5** Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
- ND Not detected
- V Additional sample volume would have been required to meet analytical method specifications.
- HT Sample analysis performed outside method / regulatory prescribed holding time.
- T Sample received outside method / regulatory prescribed requirements for thermal preservation.
- P Sample received outside method / regulatory prescribed requirements for pH preservation.
- A Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
- N The associated analysis was performed by a network / sub-contract laboratory.
- L Laboratory Error
- PW Potable Water
- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

PO BOX 2570 WACO, TEXAS 76702-2570 CLIENT CONTACT: MS. TINA DABBS

CLIENT IDENTIFICATION INFORMATION:

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

	Obs Temp °C	Corr Temp	Sample Name, Site	Collection	n		Container		Preser-	Verified	
	y Use Only	,	Description or Case Number	Date	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
5940-33	8.0	7.8	WMARSS EFFLUENT	7/10/23-7/11/23	12:00 - 12:00	AQ	P-250	Composite	1		TDS
5941.23	1	1	WMARSS EFFLUENT	7/10/23-7/11/23	12:00 - 12:00	AQ	P-250	Composite	1		CHLORIDE
15942.23	1	1	WMARSS EFFLUENT	7/10/23-7/11/23	12:00 - 12:00	AQ	P-250	Composite	1		SULFATE
					1 9						
Common											
Commen	de holdtime/s	or preservation	requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Date	Time		Received	l by:	Labora	tory Comi	nents:
sample is received outsi	de holdtime/s			Refrigator/ Initials A or B		AM L	Received	1 by:	Labora	tory Comi	nents:
ample is received outsi	de holdtime/s			Refrigator/ Date		AM V	111.	Smith			Dents:

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 TICAL REPORT JULY 2023 - CITY OF WACO

WMARSS ANALYSIS

WACOWMARSS-080223A

SHAY OCHOA

8.2.23

REPORT ID:
LAB CONTACT:
REPORT DATE:

Bio Chem Lab, Inc. Form.28.Rev.3-2016

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BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO			
WMARSS ANALYSIS			
REPORT ID:	WACOWMARSS-081023F		
LAB CONTACT:	SHAY OCHOA		
REPORT DATE:	8.10.23		

FIELD DATA / SAMPLE DESCRIPTION

Collection Point	EFFLUENT
Date/ Time Collected	7.17.23-7.18.23 / 12:00-12:00
Date/ Time Received by Lab	7.19.23 / 11:36
Laboratory Sample ID	16599-23, 16600-23, 16601-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand

PARAMETER / UNIT / METHOD

Total Dissolved Solids, mg/L	SM 2540 C	612.
Reporting Limit, mg/L		20.
Dilution Factor		1
Date / Time Analyzed		7.20.23 / 16:00
Analyst Initials		ARJ

Chloride _, mg/L	EPA 300.0	118.
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.19.23 / 20:53
Analyst Initials		AJ

Sulfate _, mg/L	EPA 300.0	74.4
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.19.23 / 20:53
Analyst Initials		AJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:

NONE TO REPORT.

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570 CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO				
WMARSS ANALYSIS				
REPORT ID:	WACOWMARSS-081023F			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.10.23			

SUMMARY OF ANALYTICAL BATCH QC

TDS

DATE	SETUP ID	BATCH ID	
7.20.23	DS-072023-05	DS-072023-05-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
16167-23	234	210	5.4
SPIKE ID:	RESULT 1	RESULT 2	% REC
16210-23	560	1,004	88.8
BLANK, mg/L	<20	LCS, %REC	95.2

CHLORIDE

0.11_0.1.D_					
SETUP DATE	SEQUENCE ID				
7.19.23-7.20.23	IC-071				
SAMPLE ID	RESULT 1	RPD			
16264-23	233.3	233.1	0.1		
SPIKE ID:	RESULT 1	RESULT 2	% REC		
16264-23	233.3	331.0	97.7		
IPCS-1 % REC:	96.1	IPCS-2 % REC:	93.5		
LCS % REC:	96.6	LCSD % REC:	96.7		
BLANK, mg/L:	<0.50	LOQ % REC:	76.8		

SULFATE

002.71.2				
SETUP DATE	SEQUENCE ID			
7.19.23-7.20.23	IC-071			
SAMPLE ID	RESULT 1	RESULT 2	RPD	
16264-23	59.5	59.2		0.5
SPIKE ID:	RESULT 1	RESULT 2	% REC	
16264-23	59.5	160.2		100.7
IPCS-1 % REC:	97.1	IPCS-2 % REC:	96.3	
LCS % REC:	98.7	LCSD % REC:	99.0	
BLANK, mg/L:	<0.50	LOQ % REC:	94.8	

TDS ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MS % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 20 mg/L

ANION ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BLANK: <RL mg/L OF TARGET ANION LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110%

MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory. Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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Bio Chem Lab, Inc.
Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO				
WMARSS ANALYSIS				
REPORT ID:	WACOWMARSS-081023F			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.10.23			

BCL PROJECT DATA QUALIFIERS:

Q Failed Quality Data. Refer to QA/QC Report of the affected data for	r specific details

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- N The associated analysis was performed by a network / sub-contract laboratory.
- L Laboratory Error
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- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT; MR. SCOTT ESPEN

REPORT ID:

LAB CONTACT:

REPORT DATE:

JULY 2023 - CITY OF WACO

WMARSS ANALYSIS

WACOWMARSS-081023F

SHAY OCHOA

8.10.23

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia		TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Beating Hand

Sample ID	Obs Corr Temp Temp °C °C	Sample Name, Site		Collection			Container		Preser-	Verified	
Laborato	ory Use Only	Description or Case Number	Dat	е	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
599-23	4.4 4.2	WMARSS EFFLUENT	1.17.23	-7.18.7	12:00 - 12:00	AQ	P-250	Composite	1		TDS
0600-23		WMARSS EFFLUENT	7.17.23 -	7.18.23	12:00 - 12:00	AQ	P-250	Composite	1		CHLORIDE
6601-23		WMARSS EFFLUENT	7.17.23-	7.18.23	12:00 - 12:00	AQ	P-250	Composite	1		SULFATE
Commen	its:	2 - 1 - 2011					n Villa		Labora	ory Comm	nents:
	eida haldtimale as peaceastics										
		requirements, initial to authorize analysis.	Placed in								
ample is received outs	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	by:			
Date			Refrigator/	Date	- 6	on h	Received	by:			
Date	Time		Refrigator/ Initials A or B		3 9:20	m h	Received	tt	If sample recei	red in lab within	2 hours no presevation needed
	Time		Refrigator/ Initials A or B	7-19-2	3 9:20	2 Lan	Received Whi Si	tt	if sample recei	1	2 hours no presevation needed Thermometer ID: 3785

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Page 1 of 4

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MR. SCOTT ESPEN

	JULY 2023 - CITY OF WACO			
WMARSS ANALYSIS				
REPORT ID:	WACOWMARSS-081423			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.14.23			

FIELD DATA / SAMPLE DESCRIPTION

TIELD DATA / SAMILLE DESCRIPTION	
Collection Point	EFFLUENT
Date/ Time Collected	7.12.23-7.13.23 / 12:00-12:00
Date/ Time Received by Lab	7.14.23 / 12:57
Laboratory Sample ID	16210-23, 16211-23, 16212-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand

PARAMETER / UNIT / METHOD

Total Dissolved Solids, mg/L	SM 2540 C	560.
Reporting Limit, mg/L		20.
Dilution Factor		1
Date / Time Analyzed		7.20.23 / 16:00
Analyst Initials		ARJ

Chloride, mg/L	EPA 300.0	121.
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.18.23 / 13:01
Analyst Initials		AJ

Sulfate _, mg/L	EPA 300.0	73.7
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.18.23 / 13:01
Analyst Initials		AJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS :

NONE TO REPORT.

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO				
WMARSS ANALYSIS				
REPORT ID:	WACOWMARSS-081423			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	8.14.23			

SUMMARY OF ANALYTICAL BATCH QC

TDS

DATE	SETUP ID	BATCH ID	
7.20.23	DS-072023-05	DS-072023-05-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
16167-23	234	210	5.4
SPIKE ID:	RESULT 1	RESULT 2	% REC
16210-23	560	1,004	88.8
BLANK, mg/L	<20	LCS, %REC	95.2

CHLORIDE

SETUP DATE	SEQUENCE ID			
7.17.23-7.18.23	IC-071723-11			
SAMPLE ID	RESULT 1	RESULT 2	RPD	
16267-23	78.8	78.8		0.0
SPIKE ID:		RESULT 2	% REC	
16267-23	78.8	194.6		115.8
IPCS-1 % REC:	95.1	IPCS-2 % REC:	93.8	
LCS % REC:	97.1	LCSD % REC:	97.0	
BLANK, mg/L:	<0.50	LOQ % REC:	72.1	

SULFATE

002.71.2				
SETUP DATE	SEQUENCE ID			
7.17.23-7.18.23	IC-071723-11			
SAMPLE ID	RESULT 1	RESULT 2	RPD	
16267-23	70.3	70.2		0.1
SPIKE ID:	RESULT 1	RESULT 2	% REC	
16267-23	70.3	182.5		112.2
IPCS-1 % REC:	96.5	IPCS-2 % REC:	94.6	
LCS % REC:	98.7	LCSD % REC:	98.7	
BLANK, mg/L:	<0.50	LOQ % REC:	88.7	

TDS ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MS % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 20 mg/L

ANION ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BLANK: <RL mg/L OF TARGET ANION

LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110% MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

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A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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Bio Chem Lab, Inc.
Form. 28. Rev. 3-2016

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4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

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CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO							
WMARSS ANALYSIS							
REPORT ID:	WACOWMARSS-081423						
LAB CONTACT:	SHAY OCHOA						
REPORT DATE:	8.14.23						

BCL PROJECT DATA QUALIFIERS:

0	Failed Quality Data	Refer to QA/QC Report	of the affected data	for enacific dataile

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- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 Collected by: FAX No.: 254-299-2453

Sample ID Obs Temp °C Corr Temp °C C °C		Sample Name, Site					Container	0.1	Preser-	Verified	
		Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
-210-23	6.4 6.2	WMARSS EFFLUENT	7/12/23	-7/13/23	12:00 - 12:00	AQ	P-250	Composite	1		TDS
211-23	11	WMARSS EFFLUENT	7/12/23.	-7/13/23	12:00 - 12:00	AQ	P-250	Composite	1		CHLORIDE
212-23	1 1	WMARSS EFFLUENT	7/12/23	7/13/23	12:00 - 12:00	AQ	P-250	Composite	1		SULFATE
A											
	2										
										-	
						×					
Commen	its:							The part	Labora	tory Comi	ments: PS 7(66 1-1527
									PH	str.	100 1.1271
imple is received outs	side holdtime/s or preserva	tion requirements, initial to authorize analysis:									
Date	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	l by:			
1/3/23	12:15PM	Beatrethre	A or B	7/14/13	12:DUAN	1 Ba	atmitar	VI			
	12:57 PM	Beathaltage	A or B	7.14.23	12:57	Lec	with	and	If sample rece	ived in lab within	n 2 hours no presevation needed
114/13	10.0	1,000	A or B								

PO BOX 2570 WACO, TEXAS 76702-2570 CLIENT CONTACT; MR. SCOTT ESPEN CLIENT IDENTIFICATION INFORMATION: BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013 TICAL REPORT REPORT ID:
LAB CONTACT:
REPORT DATE:

JULY 2023 - CITY OF WACO
WMARSS ANALYSIS
WACOWMARSS-081423
SHAY OCHOA
8.14.23

Bio Chem Lab, Inc. Form.28.Rev.3-2016

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Page 1 of 4

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

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WMARSS ANALYSIS					
REPORT ID:	WACOWMARSS-081423A				
LAB CONTACT:	SHAY OCHOA				
REPORT DATE:	8.14.23				

FIELD DATA / SAMPLE DESCRIPTION

FIELD DATA / SAMPLE DESCRIPTION	
Collection Point	EFFLUENT
Date/ Time Collected	7.24.23-7.25.23 / 12:00-12:00
Date/ Time Received by Lab	7.26.23 / 11:25
Laboratory Sample ID	17291-23, 17292-23, 17293-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand

PARAMETER / UNIT / METHOD

Total Dissolved Solids, mg/L	SM 2540 C	600.
Reporting Limit, mg/L		20.
Dilution Factor		1
Date / Time Analyzed		7.28.23 / 12:00
Analyst Initials		ARJ

Chloride, mg/L	EPA 300.0	130.
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.26.23 / 18:35
Analyst Initials		AJ

Sulfate _, mg/L	EPA 300.0	73.4
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.26.23 / 18:35
Analyst Initials		AJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS : NONE TO REPORT.

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO					
WMARSS ANALYSIS					
REPORT ID:	WACOWMARSS-081423A				
LAB CONTACT:	SHAY OCHOA				
REPORT DATE:	8.14.23				

SUMMARY OF ANALYTICAL BATCH QC

TDS

DATE	SETUP ID	BATCH ID	
7.28.23	.28.23 DS-072823-07 DS-072823-07-01		
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
17165-23	170	148	6.9
SPIKE ID:	RESULT 1	RESULT 2	% REC
17379-23 Q3	680	1,066	77.2
BLANK, mg/L	<20	LCS, %REC	96.1

CHLORIDE

SETUP DATE	SEQUENCE ID		
7.26.23	IC-072		
SAMPLE ID	RESULT 1	RESULT 1 RESULT 2	
17303-23	82.4	82.3	0.
SPIKE ID:	RESULT 1	RESULT 2	% REC
17303-23	82.4	181.5	99.
IPCS-1 % REC:	99.6	IPCS-2 % REC:	99.5
LCS % REC:	95.7	LCSD % REC:	96.0
BLANK, mg/L:	<0.50		

SULFATE

SETUP DATE	SEQUENCE ID			
7.26.23	IC-072			
SAMPLE ID	RESULT 1	RESULT 1 RESULT 2		
17303-23	58.8	58.2		1.0
SPIKE ID:	RESULT 1	RESULT 2	% REC	
17303-23	58.8	158.8		100.0
IPCS-1 % REC:	100.9	IPCS-2 % REC:	101.5	
LCS % REC:	98.1	LCSD % REC:	98.8	
BLANK, mg/L:	<0.50			

TDS ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MS % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 20 mg/L

ANION ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10%
BLANK: <RL mg/L OF TARGET ANION

LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110% MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



Page 3 of 4

Bio Chem Lab, Inc.
Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MR. SCOTT ESPEN

JULY 2023 - CITY OF WACO					
WMARSS ANALYSIS					
REPORT ID:	WACOWMARSS-081423A				
LAB CONTACT:	SHAY OCHOA				
REPORT DATE:	8.14.23				

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data, Refer	to QA/QC Report of the affected	data for specific details.

- Q1 Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
- Q2 LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
- Q3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
- QS3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
- Q4 Sample specific duplicate precision outside desired range.
- QM1 Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
- QM2 Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
- QM3 Microbiology precision outside desired range.
- B1 Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
- B2 Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
- B3 Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
- W1 Result is an average of multiple weighing / drying cycles.
- **C** Reported result over the laboratory's calibration range
- C1 Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
- **J5** Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
- ND Not detected
- V Additional sample volume would have been required to meet analytical method specifications.
- HT Sample analysis performed outside method / regulatory prescribed holding time.
- T Sample received outside method / regulatory prescribed requirements for thermal preservation.
- P Sample received outside method / regulatory prescribed requirements for pH preservation.
- A Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
- N The associated analysis was performed by a network / sub-contract laboratory.
- L Laboratory Error
- PW Potable Water
- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

PO BOX 2570 WACO, TEXAS 76702-2570 CLIENT CONTACT; MR. SCOTT ESPEN

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

Sample ID	Obs Corr Temp Temp °C °C	Sample Name, Site	Sample Name, Site	Collection Container		0.1	Preser-	Verified			
Laborato	ory Use Only	Description or Case Number	Dat	e	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
7291-3	9.6 9.4	WMARSS EFFLUENT	7-24-23-	7-25-23	12:00 - 12:00	AQ	P-250	Composite	1		TDS
1292-23	1 1	WMARSS EFFLUENT	7/24-7	125	12:00 - 12:00	AQ	P-250	Composite	1		CHLORIDE
129323	11	WMARSS EFFLUENT	7/24	7/25	12:00 - 12:00	AQ	P-250	Composite	1		SULFATE
Commen	nts:						FL ES		Labora	tory Com	ments:
mple is received out	tside holdtime/s or preservatio	requirements, initial to authorize analysis:	Placed in Refrigator/	Date	Time	149	Received	l bur			
	Time	Reilliquistied by.		Date	Time		Received	by.			
lo 1	101100	0 . 1	Initials A or B		1	Am)	+111	M			
125/12	12:10PM	Beatmitan	A or B	7-26-8		amh	tillis.	Sulto			
12512	12:10PM 11:25 mm	Brotmitano Willis Sult	A or B	7-26-3 7.26:2		am h	tillis 2	Sult	If sample rece	ived in lab within	n 2 hours no presevation needed Thermometer ID: 3785

PHONE: 254.829.8001 FAX: 254.829.8013 TICAL REPORT JULY 2023 - CITY OF WACO

WMARSS ANALYSIS

WACOWMARSS-081423A

SHAY OCHOA

8.14.23

REPORT ID:
LAB CONTACT:
REPORT DATE:

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Page 1 of 4

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MR. SCOTT ESPEN

	JULY 2023 - CITY OF WACO	
	WMARSS ANALYSIS	
REPORT ID:	WACOWMARSS-081523B	
LAB CONTACT:	SHAY OCHOA	
REPORT DATE:	8.15.23	

FIELD DATA / SAMPLE DESCRIPTION

TIELD DATA / SAMILLE DESCRIPTION	
Collection Point	EFFLUENT
Date/Time Collected	7.26.23-7.27.23 / 12:00-12:00
Date/ Time Received by Lab	7.28.23 / 12:00
Laboratory Sample ID	17593-23, 17594-23, 17595-23
Sampling Description/Procedure	Client Collected
Sample Type	Composite
Sample Matrix	Aqueous-NPW
Collector	B. Hand

PARAMETER / UNIT / METHOD

Total Dissolved Solids, mg/L	SM 2540 C	544.
Reporting Limit, mg/L		20.
Dilution Factor		1
Date / Time Analyzed		8.4.23 / 09:00
Analyst Initials		ARJ

Chloride _, mg/L	EPA 300.0	120.
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.28.23 / 19:31
Analyst Initials		AJ

Sulfate mg/L	EPA 300.0	92.3
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		7.28.23 / 19:31
Analyst Initials		AJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:

NONE TO REPORT.

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 **4751 TOKIO ROAD WEST, TX 76691** ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

CLIENT CONTACT: MR. SCOTT ESPEN

	JULY 2023 - CITY OF WACO
	WMARSS ANALYSIS
REPORT ID:	WACOWMARSS-081523B
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	8.15.23

SUMMARY OF ANALYTICAL BATCH QC

TDS

DATE	SETUP ID	BATCH ID	
8.4.23	DS-080423-01	DS-080423-01-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
17851-23	1,602	1,618	0.5
SPIKE ID:	RESULT 1	RESULT 2	% REC
18014-23	180	662	96.4
BLANK, mg/L	< 20	LCS, %REC	100.9

CHLORIDE

SETUP DATE	SEQUENCE ID			
7.28.23	IC-072	823-19		
SAMPLE ID	RESULT 1	RESULT 2	RPD	
17586-23	81.3	81.3	0	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC	
17586-23	81.3	179.4	98	.1
IPCS-1 % REC:	95.1	IPCS-2 % REC:	96.7	
LCS % REC:	97.1	LCSD % REC:	97.1	
BLANK, mg/L:	<0.50			

SULFATE

SETUP DATE	SEQUENCE ID		
7.28.23	IC-072	823-19	
SAMPLE ID	RESULT 1	RESULT 2	RPD
17586-23	65.8	66.0	0.3
SPIKE ID:	RESULT 1	RESULT 2	% REC
17586-23	65.8	164.0	98.2
IPCS-1 % REC:	96.7	IPCS-2 % REC:	98.1
LCS % REC:	99.2	LCSD % REC:	99.4
BLANK, mg/L:	<0.50		

TDS ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MS % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 20 mg/L

ANION ANALYSIS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BLANK: <RL mg/L OF TARGET ANION LCS % REC/ QCS: ACCEPTABLE RECOVERY 90-110%

MS % REC: ACCEPTABLE RECOVERY 80-120% (SPIKE)

IPCS-1 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / INITIAL IPCS-2 % REC: ACCEPTABLE RECOVERY 90-110% (INSTRUMENT PERFORMANCE CHECK / FINAL

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory. Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



Page 3 of 4

Bio Chem Lab, Inc.
Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570
CLIENT CONTACT: MR. SCOTT ESPEN

	JULY 2023 - CITY OF WACO
	WMARSS ANALYSIS
REPORT ID:	WACOWMARSS-081523B
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	8.15.23

BCL PROJECT DATA QUALIFIERS:

0	Failed Quality Data	Refer to OA/OC Ren	ort of the affected da	ta for specific details.

- Q1 Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
- Q2 LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
- Q3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
- QS3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
- Q4 Sample specific duplicate precision outside desired range.
- QM1 Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
- QM2 Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
- QM3 Microbiology precision outside desired range.
- B1 Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
- B2 Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
- B3 Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
- W1 Result is an average of multiple weighing / drying cycles.
- C Reported result over the laboratory's calibration range
- C1 Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
- J5 Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
- ND Not detected
- V Additional sample volume would have been required to meet analytical method specifications.
- HT Sample analysis performed outside method / regulatory prescribed holding time.
- T Sample received outside method / regulatory prescribed requirements for thermal preservation.
- P Sample received outside method / regulatory prescribed requirements for pH preservation.
- A Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
- N The associated analysis was performed by a network / sub-contract laboratory.
- L Laboratory Error
- PW Potable Water
- NPW Non-Potable Water
- Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

PO BOX 2570 WACO, TEXAS 76702-2570 CLIENT CONTACT; MR. SCOTT ESPEN

REPORT ID:
LAB CONTACT:
REPORT DATE:

JULY 2023 - CITY OF WACO
WMARSS ANALYSIS
WACOWMARSS-0815238
SHAY OCHOA
8.15.23

CLIENT IDENTIFICATION INFORMATION:

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

Commence of the Commence of th	Obs Corr Temp	Sample Name, Site		Collection			Container		Preser-	Verified	
Laboratory (Use Only	Description or Case Number	Date	e	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
7593-23/0	0.2 10.0	WMARSS EFFLUENT	7/24/23-	7/27/23	12:00 - 12:00	AQ	P-250	Composite	1		TDS
7594-23		WMARSS EFFLUENT	7/26/23-		12:00 - 12:00	AQ	P-250	Composite	1		CHLORIDE
7595-23	1 1	WMARSS EFFLUENT	7/26/23-7	1/27/23	12:00 - 12:00	AQ	P-250	Composite	1		SULFATE
			1								
						-					
						1 1					
Comment	s:								Labora	tory Comr	nents:
Comment	s:								Labora	tory Comr	nents:
		on requirements, initial to authorize analysis.							Labora	tory Comr	nents:
		in requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	- 5:	Labora	tory Comm	nents:
mple is received outside	e holdtime/s or preservation	Relinquished by:	Refrigator/		1 2 2 2	www		- 5:	Labora	tory Comm	nents:
mple is received outside Date	e holdtime/s or preservation		Refrigator/		Time 23 9:10 * 17:00	CI CI		- 5:			nents: 2 hours no presevation needed Th-

PHONE: 254.829.8001 FAX: 254.829.8013 TICAL REPORT

 Page 1 of 11
 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Date / Time Analyzed

Analyst Initials

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-121423
LAB CONTACT: SHAY OCHOA
REPORT DATE: 12.14.23
FFFI LIFNT

					EFFL	JENT
FIELD DATA / SAMPLE DESC	RIPTION					
Collection Point		EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
Date/ Time Collected		11.30.23-12.1.23 / 12:00-12:00	12.1.23-12.2.23 / 12:00-12:00	12.2.23-12.3.23 / 12:00-12:00	12.3.23-12.4.23 / 12:00-12:00	12.4.23-12.5.23 / 12:00-12:00
Date/ Time Received by Lab		12.1.23 / 12:48	12.4.23 / 11:51	12.4.23 / 11:51	12.5.23 / 11:10	12.6.23 / 11:41
•		28435-23, 28436-23,	28492-23, 28493-23,	28487-23, 28488-23,	28685-23, 28686-23,	28815-23, 28816-23 28817-2;
Parent Laboratory Sample ID		28437-23	28494-23	28489-23	28687-23	
Sampling Description/Procedure		Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type		Composite	Composite	Composite	Composite	Composite
Sample Matrix		Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector		C. Crosby	R. Woods	C. Crosby	C. Crosby	J. Duus
		1				
PARAMETER / UNIT / METHO	OD .					
CBOD _{5,} mg/L	SM 5210 B	4.	2.	3.	3.	3
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	
Date / Time Analyzed		12.1.23 / 14:00	12.4.23 / 12:00	12.4.23 / 12:00	12.6.23 / 09:30	12.7.23 / 09:30
Analyst Initials		LD / ARJ	ARJ	ARJ	LD / ARJ	LD / AR.
TSS, mg/L	SM 2540 D	13.	< 2	2.	9.	4
Reporting Limit, mg/L		2.	2.	2.	2.	2
Dilution Factor		1	1	1	1	
Date / Time Analyzed		12.5.23 / 09:40	12.5.23 / 09:40	12.5.23 / 09:40	12.6.23 / 09:50	12.7.23 / 09:20
Analyst Initials		МН	MH	MH	MH	MH
		I				
NH ₃ N, mg/L	SM 4500 NH ₃ B, D	< 0.10	0.10	< 0.10	0.12	< 0.10
Reporting Limit, mg/L		0.10	0.10	0.10	0.10	0.10
Dilution Factor		1	1	1	1	

12.4.23 / 21:30

SV

12.4.23 / 21:30

sv

12.4.23 / 21:30

SV

12.5.23 / 21:30

sv

12.7.23 / 19:40

SV

 Page 2 of 11
 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

C. Crosby

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Collector

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING

REPORT ID: WACOWMARSS-121423

LAB CONTACT: SHAY OCHOA

REPORT DATE: 12.14.23

C. Crosby

J. Duus

INFLUENT

FIELD DATA / SAMPLE DESCRIPTION					
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	11.30.23-12.1.23 / 12:00-12:00	12.1.23-12.2.23 / 12:00-12:00	12.2.23-12.3.23 / 12:00-12:00	12.3.23-12.4.23 / 12:00-12:00	12.4.23-12.5.23 / 12:00-12:00
Date/ Time Received by Lab	12.1.23 / 12:48	12.4.23 / 11:51	12.4.23 / 11:51	12.5.23 / 11:10	12.6.23 / 11:41
Parent Laboratory Sample ID	28438-23, 28439-23	28495-23, 28496-23	28490-23, 28491-23	28688-23, 28689-23	28818-23, 28819-23
Sampling Description/Procedure	Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type	Composite	Composite	Composite	Composite	Composite
Sample Matrix	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
'					,

PARAMETER / UNIT / METHOD						
BOD ₅ , mg/L	SM 5210 B	Q 177.	240.	122.	176.	238.
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.1.23 / 14:00	12.4.23 / 12:00	12.4.23 / 12:00	12.6.23 / 09:30	12.7.23 / 09:30
Analyst Initials		LD / ARJ	ARJ	ARJ	LD / ARJ	LD / ARJ

R. Woods

C. Crosby

NH ₃ N, mg/L SM	1 4500 NH ₃ B, D	29.4	32.6	29.6	33.9	33.9
Reporting Limit, mg/L		0.50	0.50	0.50	0.50	0.50
Dilution Factor	_	5	5	5	5	5
Date / Time Analyzed		12.4.23 / 21:30\	12.4.23 / 21:30	12.4.23 / 21:30	12.5.23 / 21:30	12.7.23 / 19:40
Analyst Initials		SV	SV	SV	SV	SV

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS
NONE TO REPORT.

Page 3 of 11 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO				
WMARSS				
DISCHARGE MONITORING				
REPORT ID:	WACOWMARSS-121423			
LAB CONTACT: SHAY OCHOA				
REPORT DATE: 12.14.23				

SUMMARY OF ANALYTICAL BATCH QC

BOD

SETUP DATE	SETUP ID	BATCH ID	
12.01.23	B-120123-01	B-120123-01-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
28447-23	198	207	2.2
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
Q1 0.27	0.16	196	220

SETUP DATE	SETUP ID	BATCH ID	
12.4.23	B-120423-02	B-120423-02-01	
DUPLICATE	RESULT 1	RESULT 2	% DEV
28495-23	254	233	4.3
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.01	0.01	187	172

SETUP DATE	SETUP ID	BATCH ID	
12.6.23	B-120623-03	B-120623-03-04	
DUPLICATE	RESULT 1	RESULT 2	% DEV
28688-23	172	184	3.4
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.16	0.17	190	176

SETUP DATE	SETUP ID	BATCH ID	
12.7.23	B-120723-04	B-120723-04-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
28792-23	246	226	4.2
28818-23	245	226	4.0
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.13	0.16	176	198

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.5.23	T-120523-02	T-120523-02-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28466-23	3010	2960	0.8
28467-23	81	83	1.2
BLANK, mg/L	<2	LCS % REC	103.7

SETUP DATE	SETUP ID	BATCH ID	
12.5.23	T-120523-02	T-120523-02-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28466-23	3010	2960	0.8
28467-23	81	83	1.2
BLANK, mg/L	<2	LCS % REC	103.7

SETUP DATE	SETUP ID	BATCH ID	
12.5.23	T-120523-02	T-120523-02-02	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28514-23	9.4	9.7	1.6
BLANK, mg/L	<2	LCS % REC	92.3

SETUP DATE	SETUP ID	BATCH ID	
12.6.23	T-120623-03	T-120623-03-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28669-23	180	182	0.6
28718-23	28	30	3.4
BLANK, mg/L	<2	LCS % REC	101.3

Page 4 of 11 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO							
WMARSS							
DISCHARGE MONITORING							
REPORT ID:	WACOWMARSS-121423						
LAB CONTACT: SHAY OCHOA							
REPORT DATE:	12.14.23						

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.7.23	T-120723-04	T-120723-04-02	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28791-23	6400	5960	3.6
28806-23	6500	6540	0.3
BLANK, mg/L	<2	LCS % REC	102.0

NH3N

SETUP DATE:	SETUP ID:	BATCH ID:	
12.04.23	N-120423-01	N-120423-01-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
28434-23	30.3	30.5	0.3
28463-23	48.5	48.8	0.3
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
28450-23	0.07	1.89	90.8
28450-23	0.07	1.84	88.3
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	104.8	103.6	

SETUP DATE:	SETUP ID:	BATCH ID:	
12.05.23	N-120523-03	N-120523-03-01	
SAMPLE ID:	AMPLE ID: RESULT 1: RESULT 2:		% DEV:
28634-23	29.5	29.6	0.2
28674-23	20.1	20.5	1.1
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
28686-23	0.12	1.93	90.8
28686-23	0.12	1.98	93.3
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	101.6	102.2	

SETUP DATE:	SETUP ID:	BATCH ID:	
12.07.23	N-120723-05	N-120723-05-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
28819-23	33.9	34.1	0.4
28935-23	36.3	36.5	0.3
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
28951-23	0.04	1.89	92.5
28951-23	0.04	1.84	90.0
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	102.0	102.2	
V 0.00	102.0	102.2	

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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016
 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO							
WMARSS							
DISCHARGE MONITORING							
REPORT ID:	WACOWMARSS-121423						
LAB CONTACT: SHAY OCHOA							
REPORT DATE:	12.14.23						

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TSS

% DEV: PRECISION ACCEPTABLE RANGE 0-5% LCS % REC: ACCEPTABLE RECOVERY 80-120% TSS BLANK: ≤2.0 mg/L

NH₃N

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



Page 6 of 11 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING REPORT ID: WACOWMARSS-121423 LAB CONTACT: SHAY OCHOA REPORT DATE: 12.14.23

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.
Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
Q3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
QS3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be
	statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
Q4	Sample specific duplicate precision outside desired range.
QM1	Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
QM2	Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
QM3	Microbiology precision outside desired range.
B1	Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
B2	Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
В3	Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
W1	Result is an average of multiple weighing / drying cycles.
С	Reported result over the laboratory's calibration range
C1	Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
J5	Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
ND	Not detected
V	Additional sample volume would have been required to meet analytical method specifications.
HT	Sample analysis performed outside method / regulatory prescribed holding time.
T	Sample received outside method / regulatory prescribed requirements for thermal preservation.
Р	Sample received outside method / regulatory prescribed requirements for pH preservation.
Α	Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
N	The associated analysis was performed by a network / sub-contract laboratory.
L	Laboratory Error
PW	Potable Water
NPW	Non-Potable Water
Z	Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

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CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450

Page 1 of 1

FAX: (254) 299-2453

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506		
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001		
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Clifford Cash		

	Laboratory Use Only Type		Crob as	Preser-	Verified							
Laborato			Da	Date		Matrix	Volume /	Composite	vation		Analysis Requested	
28436-23	4.Ce	4.5	WMARSS EFFLUENT	11/30/23-	12/01/23	12:00 - 12:00	AQ	P-2000	Composite	1	_	TSS
28436-23		1	WMARSS EFFLUENT	11/30/23-	12/01/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
28437.73			WMARSS EFFLUENT	11/30/23-	12/01/23	12:00 - 12:00	AQ	P-1000	Composite	1	-	CBOD
3438.73		,	WMARSS INFLUENT	11/30/23-	12/01/23	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
28439-23	V	4	WMARSS INFLUENT	11/30/23-	12/01/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Commen	ts:									Labora	tory Comm	nents:
										HCA	Stril	16: 7255-1-1576
sample is received out		or preservation	requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	l by:	рн	Strip	06: 7285-1-1676
100110000000	Tir	me	Relinquished by:	Refrigator/	Date 12-1-23	3 12:15	Kup	Received	l by:			2 hours no presevation needed

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CITY OF WACO P.O. BOX 2570

Waco, Texas 76707

Matrix : AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water

Container: I-Idexx P- Plastic AP-Amber Plastic G-Clear Glass AG-Amber Glass B-Bacti WP-Whirl Pak VOA -40ml vial C-Cubitainer

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Page 1 of 1

Client/Project:	WMAR	SS			Contact: Sc	ott Espen/Michae	l Garcia			TX Permit No.: TX0026506 WQ Permit No.: WQ0011071-001				
Address: 1147	Treatm	ent Plant	Road		Phone No.:	254-299-2450								
Waco	76707			FAX No.: 254-299-2453					Collected by: Clifford Crosby					
Sample ID Obs Corr Temp		Corr Temp	Sample Name, Site		n		Container		Preser-	Verified				
Laborato	ry Use Onl	ly	Description or Case Number	Da	ate	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested		
28487-23	3.2	3.1	WMARSS EFFLUENT		Composite	1	/	TSS						
2848823			WMARSS EFFLUENT	12/02/23-	-12/03/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3		
948923			WMARSS EFFLUENT	12/02/23-	-12/03/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD		
8490.23	1		WMARSS INFLUENT	12/02/23	-12/03/23	12:00 - 12:00	AQ	P-125	Composite	1		BOD		
28491.23	Y	V	WMARSS INFLUENT	12/02/23	-12/03/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3		
C o m m e n		s or preservation	n requirements, initial to authorize analysis.							PH 3	Strips	nents: - 7255-1-1570		
Date	Т	ime	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	l by:					
12-03-23	1200	am	Ceffed Cronf	A or B	12.4-	23 9:10	mh	Illo S	ml					
12-03-23	11:	SIAM	Will's Smith	A or B	12.4.2	3 1151	Alli	50n T	Janek	If sample rece	eived in lab within	2 hours no presevation needed		
				A or B						Thermometer ID: 3785				

(1)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 to pH<2 (4)HCl to pH<2 (5)Na₂S₂O₃ (6)NaOH to pH>12 (7)None required (8)Other

Bio Chem Lab, Inc. Form.28.Rev.3-2016

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING

WACOWMARSS-121423

SHAY OCHOA 12.14.23

REPORT ID:
LAB CONTACT:
REPORT DATE:

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

	bs Corr Temp	Sample Name, Site	A PARTICULAR PROPERTY OF THE PARTICULAR PROPERTY OF THE PARTICULAR			Container		Preser- Verifier			
Laboratory Use	se Only	Description or Case Number	Da	ite	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
849223 3.	2 3.1	WMARSS EFFLUENT	12/01/23-1	12/02/23	12:00 - 12:00	AQ	P-2000	Composite	1	_	TSS
3493.23		WMARSS EFFLUENT	12/01/23-1	12/02/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3
349423		WMARSS EFFLUENT	12/01/23-1	12/02/23	12:00 - 12:00	AQ	P-1000	Composite	1	_	CBOD
3495-23	1	WMARSS INFLUENT	12/01/23-1	12/02/23	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
3496-23 V	V	WMARSS INFLUENT	12/01/23-1	12/02/23	12:00 - 12:00	AQ	P-250	Composite	1,2	10	NH3
Comments:			10 -						Laham	tory Comn	
omments.									Labora	lory Comin	nems.
nple is received outside hole	idtime/s or preservation	requirements, initial to authorize analysis:	Discord in						PHS	strips	7255-1-1576
nple is received outside hole	oldtime/s or preservation	Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	by:	PHS	strips	: 7255-1-1576
Date 2-2-23 //	Time	Relinquished by:	Refrigator/ Initials A or B	Date 12-4-2	da	m h	Received	2 44	PHS	istrips	: 7255-1-157G
Date	Time	Relinquished by:	Refrigator/ Initials A or B A or B	1110000000	23 9:10 ^{A)}	m a Allie	+ //-	2 44			2 hours no presevation needed
Date 2-2-23 //	Time	Relinquished by:	Refrigator/ Initials A or B	12-4-8	23 9:10 ^{A)}	n a	+ //-	2 44			

DECEMBER 202	DECEMBER 2023 - CITY OF WACO
W	WMARSS
DISCHARG	DISCHARGE MONITORING
REPORT ID:	WACOWMARSS-121423
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	12 14 23

Matrix : AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water

Container: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak VOA -40ml vial C -Cubitainer

Thermometer ID: 3785

(1)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 to pH<2 (4)HCl to pH<2 (5)Na₂S₂O₃ (6)NaOH to pH>12 (7)None required (8)Other

REPORT ID: LAB CONTACT: REPORT DATE:

DECEMBER 2023 - CITY OF WACO
WMARSS

DISCHARGE MONITORING

WACOWMARSS-121423

SHAY OCHOA 12.14.23

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 1. Hold CrossV Collected by: Sample ID Collection Container Preser-Verified Sample Name, Site Grab or Description or Case Number/ Matrix Analysis Requested Composite Date Time Volume / Number vation Type 9.8 WMARSS EFFLUENT 12/03/23-12/04/23 12:00 - 12:00 Composite AQ P-2000 TSS WMARSS EFFLUENT 1.0 12/03/23-12/04/23 12:00 - 12:00 AQ P-1000 Composite 1,2 NH3 WMARSS EFFLUENT 12/03/23-12/04/23 12:00 - 12:00 AQ P-1000 Composite CBOD WMARSS INFLUENT 12/03/23-12/04/23 12:00 - 12:00 AQ P-125 Composite BOD WMARSS INFLUENT 12/03/23-12/04/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 Comments: Laboratory Comments: PH strie: 7255-1-1576 sample is received outside holdlime/s or preservation requirements, initial to authorize analysis Placed in Date Time Relinquished by: Refrigator/ Date Time Received by: Initials A or B Cc A or B A or B

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Collected by: John Auus Waco, Texas 76707 FAX No.: 254-299-2453

Sample ID Obs Temp *C Corr Temp *C C *C C C C C C C C C C C C C C C C		Sample Name, Site	Collection			Container	0	Preser-	Verified		
		Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
18815-2313	39 138	WMARSS EFFLUENT	12/04/23-	-12/05/23	12:00 - 12:00	AQ	P-2000	Composite	1	-	TSS
8816-23		WMARSS EFFLUENT	12/04/23-	-12/05/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
8817-23		WMARSS EFFLUENT	12/04/23-	-12/05/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
8818-23		WMARSS INFLUENT	12/04/23-	-12/05/23	12:00 - 12:00	AQ	P-125	Composite	1	_	BOD
18819-23	1 /	WMARSS INFLUENT	12/04/23	-12/05/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
						1 1					
Comments	:								Labora	tory Comr	ments:
Comments											
		requirements, initial to authorize analysis:									nents: : 7255-1-1576
		requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	by:			
Date	Time	Relinquished by:	Refrigator/ Initials A or B	355,765	A	m W	Received	by:			
ample is received outside to	Time	Relinquished by:	Refrigator/ Initials A or B	Date 2-6-2 2-6-23	3 9:15 A	20	Received	mtt	PHS	strips	

DECEMBER 202	DECEMBER 2023 - CITY OF WACO
W/	WMARSS
DISCHARGI	DISCHARGE MONITORING
REPORT ID:	WACOWMARSS-12142
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	12.14.23

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Dilution Factor

Analyst Initials

Date / Time Analyzed

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-121923
LAB CONTACT: SHAY OCHOA
REPORT DATE: 12.19.23

					EFFL	UENT
FIELD DATA / SAMPLE DESCRIF	PTION					
Collection Point		EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
Date/ Time Collected		12.5.23-12.6.23 / 12:00-12:00	12.6.23-12.7.23 / 12:00-12:00	12.7.23-12.8.23 / 12:00-12:00	12.8.23-12.9.23 / 12:00-12:00	12.9.23-12.10.23 / 12:00-12:00
		42.7.22./44.20	42.0.22./44.20	42.0.22 / 4.4-20	40 44 00 /44.FF	40 44 00 / 44/55
Date/ Time Received by Lab		12.7.23 / 11:20 28988-23, 28989-23,	12.8.23 / 11:29 29059-23, 29060-23,	12.8.23 / 14:28 29073-23, 29074-23,	29122-23, 29123-23,	12.11.23 / 11:55 29127-23, 29128-23
Parent Laboratory Sample ID		28990-23	29061-23	29075-23	29124-23	29129-23
Sampling Description/Procedure		Client Collected	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type		Composite	Composite	Composite	Composite	Composite
Sample Matrix		Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector		B. Hand	B. Hand	B. Hand	D. Barry	D. Barry
PARAMETER / UNIT / METHOD						
	21.72.2	0 . 0	0.0	0.0	D4 . 0	P4 0
CBOD _{5,} mg/L	SM 5210 B	Q < 2	Q 2.	Q 3.	B1 < 2	B1 < 2
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.7.23 / 17:00	12.8.23 / 14:45	12.8.23 / 14:45	12.11.23 / 12:00	12.11.23 / 12:00
Analyst Initials		ARJ	LD / ARJ	LD / ARJ	ARJ	ARJ
TSS, mg/L	SM 2540 D	< 2	< 2	< 2	< 2	< 2
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.8.23 / 09:40	12.12.23 / 10:00	12.12.23 / 10:00	12.12.23 / 10:00	12.12.23 / 10:00
Analyst Initials		МН	МН	МН	MH	мн
NH₃N, mg/L	SM 4500 NH ₃ B, D	< 0.10	0.14	< 0.10	< 0.10	< 0.10
Reporting Limit, mg/L		0.10	0.10	0.10	0.10	0.10
				_		

12.7.23 / 21:30

SV

12.11.23 / 18:45

sv

12.11.23 / 18:45

SV

12.11.23 / 18:45

sv

12.11.23 / 18:45

SV

Page 2 of 10 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 **DECEMBER 2023 - CITY OF WACO WMARSS** DISCHARGE MONITORING

REPORT ID: WACOWMARSS-121923 LAB CONTACT: SHAY OCHOA REPORT DATE: 12.19.23 INFLUENT

FIELD DATA / SAMPLE DESCRIPTION					
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	12.5.23-12.6.23 / 12:00-12:00	12.6.23-12.7.23 / 12:00-12:00	12.7.23-12.8.23 / 12:00-12:00	12.8.23-12.9.23 / 12:00-12:00	12.9.23-12.10.23 / 12:00-12:00
Date/ Time Received by Lab	12.7.23 / 11:20	12.8.23 / 11:29	12.8.23 / 14:28	12.11.23 / 11:55	12.11.23 / 11:55
Parent Laboratory Sample ID	28991-23, 28992-23	29062-23, 29063-23	29076-23, 29077-23	29125-23, 29126-23	29130-23, 29131-23
Sampling Description/Procedure	Client Collected				
Sample Type	Composite	Composite	Composite	Composite	Composite
Sample Matrix	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector	B. Hand	B. Hand	B. Hand	D. Barron	D. Barron

PARAMETER / UNIT / METHOD						
BOD _{5,} mg/L	SM 5210 B	Q 212.	Q 205.	Q 268.	194.	203.
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.7.23 / 17:00	12.8.23 / 14:45	12.8.23 / 14:45	12.11.23 / 12:00	12.11.23 / 12:00
Analyst Initials		ARJ	LD / ARJ	LD / ARJ	ARJ	ARJ

NH ₃ N, mg/L	SM 4500 NH ₃ B, D	32.5	42.9	43.3	45.0	30.4
Reporting Limit, mg/L		0.50	0.50	0.50	0.50	0.50
Dilution Factor		5	5	5	5	5
Date / Time Analyzed		12.7.23 / 21:30	12.11.23 / 18:45	12.11.23 / 18:45	12.11.23 / 18:45	12.12.23 / 19:20
Analyst Initials		SV	SV	SV	SV	SV

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:NONE TO REPORT.

Page 3 of 10 Bio Chem Lab, Inc. Form.28.Rev.3-2016

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO					
WMARSS					
DISCHARGE MONITORING					
REPORT ID:	WACOWMARSS-121923				
LAB CONTACT:	SHAY OCHOA				
REPORT DATE:	12.19.23				

SUMMARY OF ANALYTICAL BATCH QC

BOD

SETUP DATE	SETUP DATE SETUP ID E			
12.7.23	B-120723-05 B-120723-05-01			
DUPLICATE	RESULT 1	RESULT 2	% DEV	
28908-23	603	555	4.1	
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA	
Q1 0.28	Q1 0.28	226	227	

SETUP DATE	SETUP ID	BATCH ID	
12.8.23	B-120823-06	B-120823-06-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29071-23	189	202	3.3
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
Q1 0.25	Q1 0.24	188	203

	SETUP DATE	SETUP ID	BATCH ID	
	12.11.23	B-121123-07	B-121123-07-01	
L	DUPLICATE	RESULT 1	RESULT 2	% DEV
2	29130-23	214	203	2.6
	BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
	0.06	0.06	209	191

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.8.23	T-120823-05	T-120823-05-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28976-23	4080	4060	0.2
28977-23	33	30	4.4
BLANK, mg/L	<2	LCS % REC	91.4

SETUP DATE	SETUP ID	BATCH ID	
12.12.23	T-121223-06	T-121223-06-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29083-23	29.2	28.8	0.7
29108-23	3240	3220	0.3
BLANK, mg/L	<2	LCS % REC	100.0

SETUP DATE	SETUP ID	BATCH ID	
12.12.23	T-121223-06	T-121223-06-02	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29121-23	28	28	0.0
29133-23	7	7	2.9
BLANK, mg/L	<2	LCS % REC	95.7

NH3N

1411014					
SETUP DATE:	SETUP ID:	BATCH ID:			
12.07.23	N-120723-06	N-120723-06-01			
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:		
28955-23	39.9	40.1	0.3		
28960-23	55.5	56.0	0.0		
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:		
29014-23	0.47	2.29	91.1		
29014-23	0.47	2.34	93.		
BLANK, mg/L:	LCS % REC:	LCSD % REC:			
< 0.05	101.2	101.0			

BIO CHEM LAB, INC. PHONE 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO						
WMARSS						
DISCHARGE MONITORING						
REPORT ID:	WACOWMARSS-121923					
LAB CONTACT:	SHAY OCHOA					
REPORT DATE:	12.19.23					

NH3N

SETUP DATE:	SETUP ID:	BATCH ID:			
12.11.23	N-121123-07	N-121123-07-01			
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:		
29055-23	66.5	67.5	0.7		
29603-23	42.9	43.0	0.		
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:		
29123-23	0.09	1.96	93.4		
29123-23	0.09	1.93	91.9		
BLANK, mg/L:	LCS % REC:	LCSD % REC:			
< 0.05	104.0	103.4			

SETUP DATE:	SETUP ID:	BATCH ID:		
12.12.23	N-121223-08	N-121223-08-01		
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:	
29162-23	40.8	41.0	0.2	
29184-23	67.0	67.4	0.:	
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:	
29212-23	0.06	1.89	91.3	
29212-23	0.06	1.91	92.3	
BLANK, mg/L:	LCS % REC:	LCSD % REC:		
< 0.05	102.8	103.2		

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TSS

% DEV: PRECISION ACCEPTABLE RANGE 0-5% LCS % REC: ACCEPTABLE RECOVERY 80-120% TSS BLANK: ≤2.0 mg/L

NH₃N

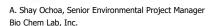
% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.





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BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013 4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

WACO, TEXAS 76702-2570

Q

CITY OF WACO PO BOX 2570

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING REPORT ID: WACOWMARSS-121923 LAB CONTACT: SHAY OCHOA REPORT DATE: 12.19.23

BCL PROJECT DATA QUALIFIERS:

Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
	Marie Orille and Ver Marie Orille Boulinstead and the desired Fig. Both assessed as heater for a size of Original Co.

Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.

Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries. Q3

QS3 Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.

Q4 Sample specific duplicate precision outside desired range.

QM1 Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte QM₂ Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte QM3 Microbiology precision outside desired range.

B1 Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L

B2 Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.

B3 Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.

Result is an average of multiple weighing / drying cycles. W₁

C Reported result over the laboratory's calibration range

C1 Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.

J5 Reported result less than the laboratory reporting limit but greater than the Limit of Detection.

ND Not detected

Additional sample volume would have been required to meet analytical method specifications.

HT Sample analysis performed outside method / regulatory prescribed holding time.

Sample received outside method / regulatory prescribed requirements for thermal preservation.

Sample received outside method / regulatory prescribed requirements for pH preservation.

Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation. Α

N The associated analysis was performed by a network / sub-contract laboratory.

Laboratory Error PW Potable Water NPW Non-Potable Water

Z Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707 CITY OF WACO

TELEPHONE: (254) 299-2450

Page 1 of 1

FAX: (254) 299-2453

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Reathic Hand

Date Time Matrix Number/ Volume / Type Composite 1 Time Matrix Number Volume / Type Verified Vation Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Verified Vation Number Volume / Type Vation Number Vation													The state of the s
Laboratory Use Only WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-2000 Composite 1,2 NH3 WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-1000 Composite 1,2 NH3 WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-1000 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 CBOD	Sample ID			Sample Name, Site		Collection			Container		Preser-	Verified	
WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-1000 Composite 1,2 NH3 WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-1000 Composite 1 CBOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1 BOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1 BOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH	Laborator	y Use Only			D	Date		Matrix	Volume /	530000	vation		Analysis Requested
WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-100 Composite 1 BOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1 BOD NH3 Comments: Laboratory Comments: Date Time Relinquished by: Refrigatory Initials A or B A or B A or B A or B Thermometer ID: 3785 T- Thermometer ID: 3785 Thermometer ID: 378	18788-2	5595	8	WMARSS EFFLUENT	12/05/23	12/05/23-12/06/23 12:00 - 1		AQ	P-2000	Composite	1		TSS
WMARSS EFFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-1000 Composite 1 BOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-125 Composite 1 BOD WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1 BOD NH3 Comments: Laboratory Comments: Laboratory Comments: Placed in Relinquished by: Refrigatory Initials 10 authorage analyses: Refrigatory Initials 12:10 A or B A or B A or B Thermometer ID: 3785 TF-	8989 21	3		WMARSS EFFLUENT	12/05/23	3-12/06/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
WMARSS INFLUENT 12/05/23-12/06/23 12:00 - 12:00 AQ P-250 Composite 1,2 NH3 NH3 NH3 NH3 P-250 Composite 1,2 NH3 NH3 NH3 P-250 Composite 1,2 NH3 NH3 NH3 NH3 NH3 NH3 NH3 NH	8990 2	3		WMARSS EFFLUENT	12/05/23	3-12/06/23	12:00 - 12:00	AQ	P-1000	Composite	1	-	CBOD
Laboratory Comments: Date Time Relinquished by: Refiguator Initials Invariant Received by: Initials I	A STATE OF THE STA	5		WMARSS INFLUENT	12/05/23	-12/06/23	12:00 - 12:00	AQ	P-125	Composite	1	-	
Date Time Relinquished by: Placed in Refrigator/ Initials Placed in Refrigator/ Initials Date Time Received by: Placed in Refrigator/ Initials Date	8972-	237		WMARSS INFLUENT	12/05/23	3-12/06/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Date Time Relinquished by: Placed in Refrigator/ Initials Placed in Refrigator/ Initials Date Time Received by: Placed in Refrigator/ Initials Date													
Date Time Relinquished by: Placed in Refrigator/ Initials Pack Pack Placed in Refrigator/ Initials Pack													
Date Time Relinquished by: Placed in Refrigator/ Initials Packed in Refrigator/ Initials Date Time Received by: Placed in Refrigator/ Initials Date													
Date Time Relinquished by: Placed in Refrigator/ Initials 12-17 PM Beath: 4th A or B A													
Date Time Relinquished by: Placed in Refrigator/ Initials Placed in Refrigator/ Initials Date Time Received by: Placed in Refrigator/ Initials Date													
Date Time Relinquished by: Placed in Refrigator/ Initials Placed in Refrigator/ Initials Date Time Received by: Placed in Refrigator/ Initials Date													
Date Time Relinquished by: Placed in Refrigator/ Initials 12:17PM Beachiz that A or B 2-7-23 11:20 Mally A It sample received in lab within 2 hours no preservation needed A or B Thermometer ID: 3785 TR-	C o m m e n	ts:									PH:	tory Comm	nents: 5 1 - 1576
Initials A or B	5250000			20170 1000 600									
10/25 12:17PM Beachiz thad Air B 12-7-23 9:18 W Win Smith A or B 12-7-23 11:20 Mally A Smith It sample received in lab within 2 hours no preservation needed Thermometer ID: 3785 IR-	Date	Time		Relinquished by:		Date	Time		Received	by:			
A or B Thermometer ID: 3785 TR-	2/4/25	12:179	M	Beatrictora	BH	12-7-2	5 9:18 1	Mu	Sath	met			
Thermometer ID: 3785 IR-	2-7-23	11:20	AM	Willis Smith	A or B	12.723	11:20	N	ully	AX	If sample rece	ived in lab within	2 hours no presevation needed
1x: AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water (1)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 to pH<2 (4)HCl to pH<2 (5)Na ₂ S ₂ O ₃ (6)NaOH to pH>12 (7)None required (8)Other					1800, 30, 550				/				Thermometer ID: 3785 7R-
tainer: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak VOA -40ml vial C -Cubitainer									2 (3)HNO3 to p	H<2 (4)HCl to pH	<2 (5)Na ₂ S ₂	O ₃ (6)NaOH 1	to pH>12 (7)None required (8)Other

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Address: 1147 Treatment Plant Road Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

Sample ID	Obs Corr Temp Temp °C °C	Sample Name, Site		Collection			Container	Out as	Preser-	Verified	
Laborato	ry Use Only	Description or Case Number	D	ate	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
1059-13	8.9 8.8	WMARSS EFFLUENT	12/06/23	-12/07/23	12:00 - 12:00	AQ	P-2000	Composite	1	-	TSS
1060-23		WMARSS EFFLUENT	12/06/23	-12/07/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
9061-23		WMARSS EFFLUENT	12/06/23	-12/07/23	12:00 - 12:00	AQ	P-1000	Composite	1	-	CBOD
1042-23		WMARSS INFLUENT	12/06/23	-12/07/23	12:00 - 12:00	AQ	P-125	Composite	1	-	BOD
9063-23	VV	WMARSS INFLUENT	12/06/23	-12/07/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Commen	ts:								Labora	tory Com	ments:
									pH S	trips:	7255-1-1576
	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time	lad	Received	l by:			
Date		0 1.1	A or B	12-8-3	23 9:25	1/1/	Mis SI	with the			
2/1/13	12:16PM	beachetturd	181	1 Do	~ ~~	100	00001	,			
2/1/13 2-8-23	12:14PM	Willis Smith	A or B	12/8/2		X	Budih		If sample rece	rived in lab within	n 2 hours no presevation needed

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Bratinitand

	Obs Corr Temp Temp °C °C	Sample Name, Site		Collection			Container		Preser-	Verified	
Laborator	ry Use Only	Description or Case Number	Date		Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
9073-13	5.4 5.3	WMARSS EFFLUENT	12/07/23-12	2/08/23	12:00 - 12:00	AQ	P-2000	Composite	1	-	TSS
9074-23	1 1	WMARSS EFFLUENT	12/07/23-12	2/08/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
9075 23		WMARSS EFFLUENT	12/07/23-12	2/08/23	12:00 - 12:00	AQ	P-1000	Composite	1	-	CBOD
9076-23		WMARSS INFLUENT	12/07/23-12	2/08/23	12:00 - 12:00	AQ	P-125	Composite	1	-	BOD
9077-13	V	WMARSS INFLUENT	12/07/23-12	2/08/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Common	101								Labarra	1	
									200000000000000000000000000000000000000	strips	nents: . 7255-1-1576
Commen		requirements, initial to authorize analysis. Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	by:	200000000000000000000000000000000000000		
Date	side holdtlime/s or preservation Time	Relinquished by:	Refrigator/ Initials A or B	Date 2-8- 元		m W	Received Ma Sm.	by:	200000000000000000000000000000000000000		
ample is received outsi	ide holdtime/s or preservation	Relinquished by:	Refrigator/ Initials A or B		3 2:45/	W W	Received MaSm.	by:	рн з	strips	

REPORT DATE:	LAB CONTACT:	REPORT ID:	DISCHARG	W	DECEMBER 20:
12.19.23	SHAY OCHOA	WACOWMARSS-121923	DISCHARGE MONITORING	WMARSS	DECEMBER 2023 - CITY OF WACO

Bio Chem Lab, Inc. Form.28.Rev.3-2016

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707



TELEPHONE: (254) 299-2450

Page 1 of 1

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Collected by: Waco, Texas 76707 FAX No.: 254-299-2453

Laboratory Use 0 9122-23 4.2 9123-23		Description or Case Number	Do		Collection		Container Number/	Grab or	Preser-	Verified	
9123-23	41		Da	te	Time	Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
The state of the s	19.5	WMARSS EFFLUENT	12/08/23-1	12/09/23	12:00 - 12:00	AQ	P-2000	Composite	1		TSS
The state of the s	1	WMARSS EFFLUENT	12/08/23-	12/09/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3
71272		WMARSS EFFLUENT	12/08/23-	12/09/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
9125.23	1	WMARSS INFLUENT	12/08/23-	12/09/23	12:00 - 12:00	AQ	P-125	Composite	1		BOD
9126-23 V	V	WMARSS INFLUENT	12/08/23-	12/09/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Comments:		a requirements, initial to authorize analysis:							DH .	strips	ments: 5: 7255-1-1576
	Time	Relinquished by:	Placed in Refrigator/ Initials	Date	Time	. A	Received	l by:			
12-9-23 1	2:0017	DBom Wallio South	A or B	12-11-2	3 9:25	Hay [V	Jillio S	mith			
2-11-23 11:	55 AM	WilliSouth	A or B	12-11-23	11:55	All	lison o	Tanel	If sample rece	ived in lab within	1 2 hours no presevation needed
			A or B						12#	l	Thermometer ID: 3785

REPORT ID:
LAB CONTACT:
REPORT DATE:

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CITY OF WACO

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by:

	Obs Corr Temp Temp °C °C	Sample Name, Site		Collection			Container	Grab or	Preser-	Verified	
Laboratory	y Use Only	Description or Case Number	Da	te	Time	Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
7127-23	42 4.1	WMARSS EFFLUENT	12/09/23-1	12/10/23	12:00 - 12:00	AQ	P-2000	Composite	1		TSS
9128:23	1 1	WMARSS EFFLUENT	12/09/23-1	12/10/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	10	NH3
9129.23		WMARSS EFFLUENT	12/09/23-1	12/10/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
9130-23	VV	WMARSS INFLUENT	12/09/23-1	12/10/23	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
9131-23	V	WMARSS INFLUENT	12/09/23-	12/10/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Comment	ts:								Labora	tory Comn	nents:
Comment		s requirements, initial to authorize analysis;							Labora PH	story Comm	nents: : 7255-1-1570
		requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time	<i>μ</i> Λ ,	Received	by:	PH:	strips	nents: : 7265-1-1570
ample is received outsic	de holdtime/s or preservation	Relinquished by:	Refrigator/ Initials A or B	Date	2 -0	m W	Received	by:	PH:	Strips	nents: : 7255-1-1570
ample is received outsic	de holdtime/s or preservation	Relinquished by:	Refrigator/ Initials		33 9:25	M W	Received S	mitt			nents: : 7255 - 1-15 70 2 hours no presevation needed

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING WACOWMARSS-121923 SHAY OCHOA 12.19.23

FINAL REPORT REVIEW: AO / 12.19.23

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Bio Chem Lab, Inc.
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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570

Dilution Factor

Analyst Initials

Date / Time Analyzed

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-122623
LAB CONTACT: SHAY OCHOA
REPORT DATE: 12.26.23
EFFLUENT

FIELD DATA / SAMPLE DESCRIPTION **EFFLUENT EFFLUENT EFFLUENT** Collection Point **EFFLUENT EFFLUENT** 12.10.23-12.11.23 / 12.11.23-12.12.23 / 12.12.23-12.13.23 / 12.13.23-12.14.23 / 12.14.23-12.15.23 / 12:00-12:00 12:00-12:00 12:00-12:00 12:00-12:00 12:00-12:00 Date/ Time Collected Date/ Time Received by Lab 12.12.23 / 11:30 12.13.23 / 11:49 12.14.23 / 11:59 12.15.23 / 12:57 12.15.23 / 12:57 29297-23, 29298-23 29690-23, 29691-23, 29443-23, 29444-23 29574-23, 29575-23 29685-23, 29686-23, Parent Laboratory Sample ID 29299-23 29445-23 29576-23 29687-23 29692-23 Sampling Description/Procedure Client Collected Client Collected Client Collected Client Collected Client Collected Sample Type Composite Composite Composite Composite Composite Sample Matrix Aqueous-NPW Aqueous-NPW Aqueous-NPW Aqueous-NPW Aqueous-NPW Collector B. Hand B. Hand B. Hand B. Hand C. Crosby PARAMETER / UNIT / METHOD CBOD_{5,} mg/L SM 5210 B 2. B1 < 2 Q 2 < 2 Reporting Limit, mg/L 2 Dilution Factor Date / Time Analyzed 12.12.23 / 13:45 12.14.23 / 09:30 12.15.23 / 09:30 12.15.23 / 14:00 12.15.23 / 14:00 Analyst Initials LD / AJ LD / ARJ LD / AJ LD / A LD / AJ TSS, mg/L SM 2540 D < 2 Reporting Limit, mg/L Dilution Factor 12.13.23 / 09:20 12.14.23 / 09:40 12.15.23 / 09:20 12.19.23 / 09:20 12.19.23 / 09:20 Date / Time Analyzed Analyst Initials МН МН МН МН МН NH₃N, mg/L SM 4500 NH₃ B, D < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 Reporting Limit, mg/L 0.10 0.10 0.10 0.10 0.10

12.12.23 / 21:30

S۷

12.17.23 / 19:40

SV

12.17.23 / 20:50

SV

12.19.23 / 19:30

SV

12.19.23 / 19:30

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 **DECEMBER 2023 - CITY OF WACO WMARSS** DISCHARGE MONITORING

REPORT ID: WACOWMARSS-122623 LAB CONTACT: SHAY OCHOA REPORT DATE: 12.26.23 INFLUENT

FIELD DATA / SAMPLE DESCRIPTION					
Collection Point	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
Date/ Time Collected	12.10.23-12.11.23 / 12:00-12:00	12.11.23-12.12.23 / 12:00-12:00	12.12.23-12.13.23 / 12:00-12:00	12.13.23-12.14.23 / 12:00-12:00	12.14.23-12.15.23 / 12:00-12:00
Date/ Time Received by Lab	12.12.23 / 11:30	12.13.23 / 11:49	12.14.23 / 11:59	12.15.23 / 12:57	12.15.23 / 12:57
Parent Laboratory Sample ID	29300-23, 29301-23	29446-23, 29447-23	29577-23, 29578-23	29688-23, 29689-23	29693-23, 29694-23
Sampling Description/Procedure	Client Collected				
Sample Type	Composite	Composite	Composite	Composite	Composite
Sample Matrix	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector	B. Hand	B. Hand	B. Hand	B. Hand	C. Crosby

PARAMETER / UNIT / METHOD						
BOD _{5,} mg/L	SM 5210 B	256.	149.	Q 235.	363.	234.
Reporting Limit, mg/L		2.	2.	2.	2.	2.
Dilution Factor		1	1	1	1	1
Date / Time Analyzed		12.12.23 / 13:45	12.14.23 / 09:30	12.15.23 / 09:30	12.15.23 / 14:00	12.15.23 / 14:00
Analyst Initials		LD / AJ	LD / ARJ	LD / AJ	LD / AJ	LD / AJ

NH ₃ N, mg/L	SM 4500 NH ₃ B, D	34.0	35.7	37.5	36.8	38.8
Reporting Limit, mg/L		0.50	0.50	0.50	0.50	0.50
Dilution Factor		5	5	5	5	5
Date / Time Analyzed		12.12.23 / 21:30	12.17.23 / 19:40	12.17.23 / 20:50	12.19.23 / 19:30	12.19.23 / 19:30
Analyst Initials		SV	SV	SV	SV	SV

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS:
NONE TO DEPORT

NONE TO REPORT.

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO				
WMARSS				
DISCHARGE MONITORING				
REPORT ID:	WACOWMARSS-122623			
LAB CONTACT:	SHAY OCHOA			
REPORT DATE:	12.26.23			

SUMMARY OF ANALYTICAL BATCH QC

BOD

SETUP DATE	SETUP ID	BATCH ID	
12.12.23	B-121223-08	B-121223-08-01	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29097-23	322	325	0.5
29300-23	272	280	1.4
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.01	0.04	206	207

SETUP DATE	SETUP ID	BATCH ID	
12.14.23	B-121423-10	B-121423-10-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29411-23	149	154	1.7
29446-23	148	146	0.7
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.05	0.07	179	173

SETUP DATE	SETUP ID	BATCH ID	
12.15.23	B-121523-12	B-121523-12-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29577-23	236	236	0.0
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.19	0.16	Q2 164	Q2 158

SETUP DATE	SETUP ID	BATCH ID	
12.15.23	B-121523-12	B-121523-12-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29688-23	360	336	3.4
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.18	0.19	171	187

TSS

SETUP DATE	SETUP ID	BATCH ID	
12.13.23	T-121323-07	T-121323-07-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29235-23	51.2	51.2	0.0
29304-23 Q4	26460	31320	8.4
BLANK, mg/L	<2	LCS % REC	103.9

SETUP DATE	SETUP ID	BATCH ID	
12.14.23	T-121423-08	T-121423-08-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29423-23	6660	6700	0.3
29424-23	24	22	3.4
BLANK, mg/L	<2	LCS % REC	95.3

SETUP DATE	SETUP ID	BATCH ID	
12.15.23	T-121523-09	T-121523-09-02	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
28543-23	14.2	14.2	0.0
29556-23	16	15	3.2
BLANK, mg/L	<2	LCS % REC	101.7

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691 PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO WMARSS DISCHARGE MONITORING REPORT ID: WACOWMARSS-122623 LAB CONTACT: SHAY OCHOA REPORT DATE: 12.26.23

TSS

100			
SETUP DATE	SETUP ID	BATCH ID	
12.19.23	T-121923-10	T-121923-10-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
29710-23	34	33.3	1.0
29721-23	3530	3510	0.3
BLANK, mg/L	<2	LCS % REC	96.0

NH3N

SETUP DATE:	SETUP ID:	BATCH ID:	
12.12.23	N-121223-09	N-121223-09-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
29257-23	76.0	76.9	0.6
29301-23	34.0	34.1	0.1
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
29229-23	0.05	1.91	92.9
29229-23	0.05	1.86	90.4
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	102.4	103.0	

SETUP DATE:	SETUP ID:	BATCH ID:	
12.17.23	N-121723-11	N-121723-11-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
29489-23	41.0	41.4	0.5
29547-23	59.0	59.5	0.4
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
29536-23	0.06	1.86	90.1
29526-23	0.06	1.82	88.1
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	102.4	102	

SETUP DATE:	SETUP ID:	BATCH ID:	
12.17.23	N-121723-12	N-121723-12-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
29565-23	1.31	1.29	0.8
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
29575-23	0.06	1.82	88.3
29575-23	0.06	1.89	91.8
BLANK, mg/L:	LCS % REC:	LCSD % REC:	

SETUP DATE:	SETUP ID:	BATCH ID:	
12.19.23	N-121923-13	N-121923-13-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
29718-23	63.5	63.7	0.1
29745-23	39.2	39.3	0.1
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
29727-23	0.05	1.92	93.6
29727-23	0.05	1.89	92.1
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	102.2	102.6	

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID: WACOWMARSS-122623
LAB CONTACT: SHAY OCHOA
REPORT DATE: 12.26.23

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10% BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TSS

% DEV: PRECISION ACCEPTABLE RANGE 0-5% LCS % REC: ACCEPTABLE RECOVERY 80-120% TSS BLANK: ≤2.0 mg/L

NH₃N

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: < 0.05 mg/L

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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 Bio Chem Lab, Inc.

 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO
PO BOX 2570
WACO TEXAS 74702

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO					
WMARSS					
DISCHARGE MONITORING					
REPORT ID:	WACOWMARSS-122623				
LAB CONTACT: SHAY OCHOA					
REPORT DATE:	12.26.23				

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.
Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
Q3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
QS3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be
	statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
Q4	Sample specific duplicate precision outside desired range.
QM1	Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
QM2	Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
QM3	Microbiology precision outside desired range.
B1	Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
B2	Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
В3	Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
W1	Result is an average of multiple weighing / drying cycles.
С	Reported result over the laboratory's calibration range
C1	Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
J5	Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
ND	Not detected
V	Additional sample volume would have been required to meet analytical method specifications.
HT	Sample analysis performed outside method / regulatory prescribed holding time.
T	Sample received outside method / regulatory prescribed requirements for thermal preservation.
Р	Sample received outside method / regulatory prescribed requirements for pH preservation.
Α	Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
N	The associated analysis was performed by a network / sub-contract laboratory.
L	Laboratory Error
PW	Potable Water
NPW	Non-Potable Water
Z	Refer to additional notes / supplemental narrative

ADDITIONAL NOTES:

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 Collected by: heatriztand FAX No.: 254-299-2453

	Obs Corr Temp Temp °C °C	Sample Name, Site		Collection		Container	Grab or Composite Preservation	Preser-	Verified		
Laborato	ry Use Only	Description or Case Number Date		е	Time	Matrix		Number/		Analysis Requested	
29297-23	5.9 5.8	WMARSS EFFLUENT	12/10/23-1	2/11/23	12:00 - 12:00	AQ	P-2000	Composite	1		TSS
9298-23		WMARSS EFFLUENT	12/10/23-1	2/11/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.5	NH3
9299-23		WMARSS EFFLUENT	12/10/23-1	2/11/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
29360-23		WMARSS INFLUENT	12/10/23-1	2/11/23	12:00 - 12:00	AQ	P-125	Composite	1		BOD
9301-23		WMARSS INFLUENT	12/10/23-1	2/11/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.5	NH3
-											
Commen			Placed in						PH:	tory Comi 7255	nents: 5-1-1576
Date	Time		Refrigator/ Initials	Date	Time		Received	by:			
Date	1,0,102		A or B	Date	2 14	w h	Received	by:			
Date	1,0,102		A or B	ATTOTICS.	13 9:51A	w h	Received Julia S	by:	If sample recei	ived in lab within	2 hours no presevation needed

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING

PORT ID:

WACOWMARSS-122623

B CONTACT:

SHAY OCHOA

PORT DATE:

12.26.23

REPORT ID:
LAB CONTACT:
REPORT DATE:

WACOWMARSS-122623 SHAY OCHOA

12.26.23

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING

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Thermometer ID: 3785

(1)cool to 4oC (2)H2SO4 to pH<2 (3)HNO3 to pH<2 (4)HCl to pH<2 (5)Na2S2O3 (6)NaOH to pH>12 (7)None required (8)Other

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project	: WMAR	SS			Contact: So	cott Espen/Michae	l Garcia			TX Permit No.: TX0026506		
Address: 114	7 Treatm	ent Plan	t Road		Phone No.:	254-299-2450			1		WQ Permi	it No.: WQ0011071-001
Waco	o, Texas	76707			FAX No.: 254-299-2453				Collected by: Bratrictana			Bratrictana
Sample ID	Sample ID Obs Temp °C Corr Temp °C °C		Sample Name, Site		Collection			Container		Preser-	Verified	
Laborat			Description or Case Number	D	Date	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
29443-23	3 10.3	(0.2	WMARSS EFFLUENT	12/11/23	-12/12/23	12:00 - 12:00	AQ	P-2000	Composite	1	-	TSS
29444-2	3	1	WMARSS EFFLUENT	12/11/23	-12/12/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.5	NH3
29445-23			WMARSS EFFLUENT	12/11/23	3-12/12/23	12:00 - 12:00	AQ	P-1000	Composite	1	_	CBOD
21446-23	3		WMARSS INFLUENT	12/11/23	-12/12/23	12:00 - 12:00	AQ	P-125	Composite	1		BOD
29447-23	5 V	V	WMARSS INFLUENT	12/11/23	-12/12/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
Commer	its:						-		·	Labora	tory Comn	nents:
If sample is received ou	tside holdtime/s	s or preservation	n requirements, initial to authorize analysis;							pH :	strips:	7255-1-1576
Date	Т	ime	The second secon	Placed in Refrigator/ Initials	Date		AM	Received	by:			
12-12-23	120	PM.	Biotrictara	A or B	12-13	. 23 9:55	1 1 4	Us SA	A	-		
12-13-2	3	1:49	Willi Sutt	A or B	12/13/2	3 11:49	121	X Qudih		If sample received in lab within 2 hours no presevation needed		
				A or B								

CITY OF WACO

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707

Matrix : AQ -Aqueous SW -Stormwater S-Sludge/Soil/Sediment P-Potable Water

Container: I-Idexx P- Plastic AP-Amber Plastic G -Clear Glass AG -Amber Glass B -Bacti WP -Whirl Pak VOA -40ml vial C -Cubitainer

CITY OF WACO

P.O. BOX 2570

Waco, Texas 76707

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

Client/Project: WMARSS
Contact: Scott Espen/Michael Garcia
TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road
Phone No.: 254-299-2450
WQ Permit No.: WQ0011071-001
Waco, Texas 76707
FAX No.: 254-299-2453
Collected by:

		r Temp "C	Sample Name, Site	Water 1	Collection			Container	A WANTER	Preser-	Verified	
Description or Case Number		Description or Case	D	ate	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation	Blan.	Analysis Requested	
1574-23	13.0 17	9	WMARSS EFFLUENT	12/12/23	-12/13/23	12:00 - 12:00	AQ	P-2000	Composite	1	/	TSS
575-23			WMARSS EFFLUENT	12/12/23	-12/13/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.0	NH3
576-23			WMARSS EFFLUENT	12/12/23	-12/13/23	12:00 - 12:00	AQ	P-1000	Composite	1	/	CBOD
577-23			WMARSS INFLUENT	12/12/23	-12/13/23	12:00 - 12:00	AQ	P-125	Composite	1	/	BOD
578-23	0 (/	WMARSS INFLUENT	12/12/23	-12/13/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
ommen	ts:										tory Comi	
	side holdtime/s or pre		requirements, initial to authorize analysis:	Placed in						PHS	strips	1255-1-1576
	022000.00	j i	Relinquished by:	Refrigator/	Date	Time		Received	by:			
Date	Time			Initials			M					
Date	12:34	ph	Bratizitara	A or B	12-14-2	3 9:25	WI	11:0	tt			
Date	12:34	PLA 2 AM	Bratnetters Willis Smith	A or B	12:14.2	3 9:25	WA	11:0	to	If sample recei	ved in lab within	12 hours no presevation needed

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING
REPORT ID:
WACOWMARSS-122623
LAB CONTACT:
SHAY OCHOA
REPORT DATE:
12.26.23

Bio Chem Lab, Inc. Form.28.Rev.3-2016

Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

CITY OF WACO P.O. BOX 2570

Waco, Texas 76707

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Waco, Texas 76707 FAX No.: 254-299-2453 Collected by: Blatniz Hand

	Temp °C	°C	Sample Name, Site		Collection			Container		Preser-	Verified	
Laborato	ry Use Only		Description or Case Number	D	ate	Time	Matrix	Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
9685-23	10.0	9.9	WMARSS EFFLUENT	12/13/23	3-12/14/23	12:00 - 12:00	AQ	P-2000	Composite	1	_	TSS
968623		1	WMARSS EFFLUENT	12/13/23	3-12/14/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.5	NH3
9687-23			WMARSS EFFLUENT	12/13/23	3-12/14/23	12:00 - 12:00	AQ	P-1000	Composite	1	-	CBOD
9688-23			WMARSS INFLUENT	12/13/23	3-12/14/23	12:00 - 12:00	AQ	P-125	Composite	1	_	BOD
9689.23		7	WMARSS INFLUENT	12/13/23	3-12/14/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
				200								
Commen	ts:									Labora	tory Comm	nents:
Commen	ts:									A STATE OF THE PARTY OF THE PAR	Service Services	nents: 7255-1-1576
		or preservation	requirements, initial to authorize analysis:	Disconding						A STATE OF THE PARTY OF THE PAR	Service Services	
Commen	ide holdtime/s	or preservation	requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	8	A STATE OF THE PARTY OF THE PAR	Service Services	
ample is received outs	Til			Refrigator/ Initials A or B			CI		8	A STATE OF THE PARTY OF THE PAR	Service Services	
ample is received outsi	Ti	me JS PM		Refrigator/ Initials		3 /2:25 A	C1:	Horl C	8	PH S	Strips	

REPORT ID:
LAB CONTACT:
REPORT DATE:

DECEMBER 2023 - CITY OF WACO

WMARSS

DISCHARGE MONITORING

PORT ID:

WACOWMARSS-122623
B CONTACT:

SHAY OCHOA
PORT DATE:

12.26.23

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

FAX: (254) 299-2453

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Collected by: Clifford Crosby Waco, Texas 76707 FAX No.: 254-299-2453

	Obs Corr Ter Temp °C "C	Sample Name, Site		Collection			Container	Grab or	Preser-	Verified	A HETTING TO L
Laborato	ry Use Only	Description or Case Number	D	Date		Matrix	Number/ Volume / Type	Composite	vation		Analysis Requested
9690-23	7.2 7.1	WMARSS EFFLUEN	T 12/14/23	-12/15/23	12:00 - 12:00	AQ	P-2000	Composite	1	_	TSS
9691-23		WMARSS EFFLUEN	T 12/14/23	-12/15/23	12:00 - 12:00	AQ	P-1000	Composite	1,2	1.5	NH3
9692-23		WMARSS EFFLUEN	T 12/14/23	-12/15/23	12:00 - 12:00	AQ	P-1000	Composite	1		CBOD
9693-23		WMARSS INFLUEN	Γ 12/14/23	-12/15/23	12:00 - 12:00	AQ	P-125	Composite	1	-	BOD
9694-23	1	WMARSS INFLUEN	Γ 12/14/23	-12/15/23	12:00 - 12:00	AQ	P-250	Composite	1,2	1.0	NH3
	711										
0					Marie Land						
Commen	ts:									tory Comr	
		allon movimments initial to authorise analysis									nents: 5; 7255-1-1576
Commen		ation requirements, initial to authorize analysis: Relinquished by:	Placed in Refrigator/ Initials	Date	Time		Received	by:			
imple is received outsi	ide holdtime/s or preserv	Relinquished by:	Refrigator/ Initials A or B	Date / 2-15-2		. Th	Received	l by:			
imple is received outsi	ide holdtime/s or preserv	Relinquished by:	Refrigator/ Initials	0.57/20030	12'25 pm	, In Jen	Received My Surface Su	by:	PH	Strips	

DECEMBER 2023 - CITY OF WACO
WMARSS
DISCHARGE MONITORING

REPORT ID:
LAB CONTACT:
REPORT DATE:

WACOWMARSS-122623 SHAY OCHOA 12.26.23

 Page 1 of 8
 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

PHONE: 254.829.8001 FAX: 254.829.8013 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO

WMARSS

REUSE MONITORING

REPORT ID: WMARSSREUSE-010424

LAB CONTACT: SHAY OCHOA

REPORT DATE: 1.4.24

REUSE

FIELD DATA / SAMPLE DESCRIPTION				
Collection Point	WMARSS REUSE	WMARSS REUSE	WMARSS REUSE	WMARSS REUSE
Date/ Time Collected	12.5.23 / 08:00	12.12.23 / 08:46	12.19.23 / 08:24	12.26.23 / 09:01
Date/ Time Received by Lab	12.5.23 / 11:10	12.12.23 / 11:30	12.19.23 / 11:13	12.26.23 / 11:48
Parent Laboratory Sample ID	28690-23, 28691-23	29302-23, 29303-23	29894-23, 29895-23	30290-23, 30291-23
Sampling Description/Procedure	Client Collected	Client Collected	Client Collected	Client Collected
Sample Type	Grab	Grab	Grab	Grab
Sample Matrix	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW	Aqueous-NPW
Collector	C. Crosby	B. Hand	B. Hand	B. Hand

PARAMETER / UNIT / METI	HOD				
CBOD _{5,} mg/L	SM 5210 B	2.	B1 < 2	Q B1 < 2	B1 < 2
Reporting Limit, mg/L		2.	2.	2.	2.
Dilution Factor		1	1	1	1
Date / Time Analyzed		12.6.23 / 09:30	12.12.23 / 13:45	12.19.23 / 17:00	12.27.23 / 10:00
Analyst Initials		LD / ARJ	LD / AJ	ARJ	LD / ARJ

Total Phosphorus, mg/L	SM 4500 P B.5, E	2.92	0.88	0.73	2.33
Reporting Limit, mg/L		0.10	0.10	0.10	0.10
Dilution Factor		2	2	2	2
Date / Time Analyzed		12.7.23 / 16:35	12.15.23 / 14:00	12.20.23 / 11:10	12.27.23 / 15:35
Analyst Initials		LD / JLJ	LD / JLJ	LD / JLJ	LD / JLJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS : NONE TO REPORT.

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 Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO WMARSS REUSE MONITORING REPORT ID: WMARSSREUSE-010424 LAB CONTACT: SHAY OCHOA REPORT DATE: 1.4.24 REUSE

SUMMARY OF ANALYTICAL BATCH QC

CBOD

SETUP DATE	SETUP ID	BATCH ID	
12.6.23	B-120623-03	B-120623-03-04	
DUPLICATE	RESULT 1	RESULT 2	% DEV
28688-23	172	184	3.4
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.16	0.17	190	176

SETUP DATE	SETUP ID	BATCH ID	
12.12.23	B-121223-08	B-121223-08-01	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29097-23	322	325	0.5
29300-23	272	280	1.4
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.01	0.04	206	207

SETUP DATE	SETUP ID	BATCH ID	
12.19.23	B-121923-14	B-121923-14-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
29856-23	134	148	5.0
29870-23	176	152	7.3
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
Q1 0.31	Q1 0.24	172	169

SETUP DATE	SETUP ID	BATCH ID	
12.27.23	B-122723-20	B-122723-20-03	
DUPLICATE	RESULT 1	RESULT 2	% DEV
30299-23	197	202	1.3
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.02	0.14	170	217

PHOSPHORUS

SETUP DATE	SETUP ID	BATCH ID	
12.7.23	P-120723-02	P-120723-02-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
28365-23	8.66	8.95	1.6
28563-23	13.7	13.0	2.7
SPIKE ID:	RESULT 1	RESULT 2	% REC
28590-23	1.56	2.23	104.7
28590-23	1.56	2.23	104.7
BLANK, as P:	LCS % REC:	LCSD % REC:	
< 0.025	101.9	101.1	

SETUP DATE	SETUP ID	BATCH ID	
12.15.23	P-121523-04	P-121523-04-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
29454-23	5.86	6.66	6.4
29565-23	7.46	7.83	2.4
SPIKE ID:	RESULT 1	RESULT 2	% REC
29165-23	2.58	3.17	92.2
29165-23	2.58	3.24	103.1
BLANK, as P:	LCS % REC:	LCSD % REC:	
< 0.025	102.6	105.3	

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Bio Chem Lab, Inc.

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BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570

WACO, TEXAS 76702-2570

DECEMBER 2023 - CITY OF WACO WMARSS REUSE MONITORING REPORT ID: WMARSSREUSE-010424 LAB CONTACT: SHAY OCHOA REPORT DATE: 1.4.24 REUSE

SUMMARY OF ANALYTICAL BATCH QC

PHOSPHORUS

SETUP DATE	SETUP ID	BATCH ID	
12.20.23	P-122023-05	P-122023-05-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
29701-23	6.31	6.27	0.3
29881-23	36.7	37.6	1.2
SPIKE ID:	RESULT 1	RESULT 2	% REC
29806-23 Q3	2.67	3.44	120.3
29806-23	2.67	3.36	107.8
BLANK, as P:	LCS % REC:	LCSD % REC:	
< 0.025	95.0	94.3	

SETUP DATE	SETUP ID	BATCH ID	
12.27.23	P-122723-06	P-122723-06-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
30110-23	16.26	18.34	6.0
30302-23	0.73	0.78	3.3
SPIKE ID:	RESULT 1	RESULT 2	% REC
30244-23	0.72	1.37	101.6
30244-23	0.72	1.34	96.9
BLANK, as P:	LCS % REC:	LCSD % REC:	
< 0.025	99.6	93.5	

QC DATA LEGEND - ACCEPTABLE RANGES

CBOD / BOD

% DEV: PRECISION ACCEPTABLE RANGE 0-10%
BOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L
CBOD BLANK: ACCEPTABLE DEPLETION 0.00-0.20 mg/L
LCS-GGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L
LCS-CGGA: ACCEPTABLE RECOVERY: 198+/- 30.5 mg/L

TOTAL PHOSPHORUS

% DEV: PRECISION ACCEPTABLE RANGE 0-10% LCS % REC: ACCEPTABLE RECOVERY 80-120% MATRIX SPIKE % REC: ACCEPTABLE RECOVERY 80-120% BLANK: \leq 0.025 mg/L P

STATEMENT OF COMPLIANCE/NON-COMPLIANCE:

The above analytical data was derived from submitted samples that have met all established acceptance criteria, unless otherwise qualified, and are compliant with the laboratory's Quality System. The Director of Operations or designee has authorized the release of this report. The results contained herein relate only to the Laboratory Sample ID(s) documented above. This analytical test report may not be reproduced except in full, without the written approval of the laboratory.

Quality Assurance / Quality Control Data associated with results within this report are documented in the attached QA/QC Report.

Please contact 254.829.8001 with any questions or concerns.

A. Shay Ochoa, Senior Environmental Project Manager Bio Chem Lab, Inc.



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 Bio Chem Lab, Inc.

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 Form.28.Rev.3-2016

BIO CHEM LAB, INC. PHONE: 254.829.8001 FAX: 254.829.8013
4751 TOKIO ROAD WEST, TX 76691 ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF WACO PO BOX 2570 WACO, TEXAS 76702-2570 DECEMBER 2023 - CITY OF WACO
WMARSS
REUSE MONITORING
REPORT ID: WMARSSREUSE-010424
LAB CONTACT: SHAY OCHOA
REPORT DATE: 1.4.24
REUSE

BCL PROJECT DATA QUALIFIERS:

Q	Failed Quality Data. Refer to QA/QC Report of the affected data for specific details.
Q1	Blank outside desired limits. Data accepted based on passing batch LCS recoveries.
Q2	LCS recovery outside desired limits. Data accepted on basis of additional narrative if applicable
Q3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Data accepted on basis of passing LCS recoveries.
QS3	Matrix Spike and/or Matrix Spike Duplicate outside desired limits. Sample not spiked at a high enough concentration to be
	statistically different from the native sample result. Data accepted on basis of passing LCS recoveries.
Q4	Sample specific duplicate precision outside desired range.
QM1	Microbiology precision unable to be evaluated due to low background concentration (< 10 CFU / MPN) of target analyte
QM2	Microbiology precision unable to be evaluated due to high background concentration (> 2420 CFU / MPN) of target analyte
QM3	Microbiology precision outside desired range.
B1	Results for CBOD / BOD reported as less than [< 2 mg/L] with no sample dilution depleting method required 2.00 mg/L
B2	Results for CBOD / BOD reported as an estimate due to no dilution meeting a method stated depletion criteria.
В3	Result for CBOD / BOD unable to be determined due to excessive oxidant content, high chlorine residual.
W1	Result is an average of multiple weighing / drying cycles.
С	Reported result over the laboratory's calibration range
C1	Reported result over the laboratory's calibration range but within the laboratory verified Linear Dynamic Range.
J5	Reported result less than the laboratory reporting limit but greater than the Limit of Detection.
ND	Not detected
V	Additional sample volume would have been required to meet analytical method specifications.
HT	Sample analysis performed outside method / regulatory prescribed holding time.
T	Sample received outside method / regulatory prescribed requirements for thermal preservation.
P	Sample received outside method / regulatory prescribed requirements for pH preservation.
Α	Accredidation for analysis performed is either not currenly offered or is currently outside the laboratory's scope of accredidation.
N	The associated analysis was performed by a network / sub-contract laboratory.
L	Laboratory Error

ADDITIONAL NOTES:

PW

NPW

Z

Potable Water

Non-Potable Water

Refer to additional notes / supplemental narrative

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

Cell: (254) 749-6266

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506			
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001			
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Clifford Crosby			

Cample ID Temp *C *C		Corr Temp	Sample Name, Site		Collection		Container	Crab as	Preser-	Verified	
		Description or Case Number	Date Tir		ime Ma	Matrix Number/ Volume / Type	Grab or Composite	vation		Analysis Requested	
28690-234	9.8	9.7	WMARSS REUSE	12/5/20	23 8.0	A MAY UC		Grab	1,2	1.0	T-PHOS
28691-23	7	+	WMARSS REUSE	12/5/20	23 8:0	10 MIN A	Q P-1000	Grab	1		CBOD
							110				
Comments	;									atory Com	
		servation require	ments, initial to authorize analysis:								
	idime/s or pres	servation require	ments, initial to sufficize analysis: Relinquished by:	Placed in Refrigator Initials	Date	Time	Received	by:			
sample is received outside hold Date	idime/s or pres	me	Relinquished by:	A of B	12-5 -23	9:20 Am	Received William	100			
sample is received outside hold	idime/s or pres	me		A of B A or B	Date /2-5 · 23 /2-5.23	9:20 Am	1 1 1 1 1	100			ments: -ip: 7255-1-1576
nample is received outside hold Date	idime/s or pres	me	Relinquished by:	A of B	12-5 -23	9:20 Am	1 1 1 1 1	100	4	र्भ ८ भ	

1.4.24	REPORT DATE:
SHAY OCHOA	LAB CONTACT:
WMARSSREUSE-010424	REPORT ID:
REUSE MONITORING	REUSE
WMARSS	
DECEMBER 2023 - CITY OF WACO	DECEMBER 2

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

Cell: (254) 749-6266

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Beathin Hano

	Obs Corr Temp Temp °C °C	Sample Name, Site		Collection		Container	01	Preser-	Verified	
Laboratory Use Only		Description or Case Number	Dat	Date T		Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
9302-23	7.6 7.5	WMARSS REUSE	12/12/2	023 8:40	MM AQ	P-500	Grab	1,2	1.0	T-PHOS
29303 23		WMARSS REUSE	12/12/2	9.40	AM AQ	P-1000	Grab	1		CBOD
Comments	3:							Labora	tory Com	ments:
ample is received outside h	oldtime/s or preservation requir	ements, initial to authorize analysis:						PH:	7259	5-1-1576
Date	Time	Relinquished by:	Placed in Refrigator Initials	Date	Time	Received	by:			
12-1223	8:53AM	Brativitara Wills Sutt	A or ®	12-12-23	8:5Am	fills	mill	-		
	11:30A	Willscutt	A or B	12.12.23		ally	128			
12-12-2	11.00	1	A or B							

REPORT ID:
LAB CONTACT:
REPORT DATE: DECEMBER 2023 - CITY OF WACO
WMARSS
REUSE MONITORING REUSE WMARSSREUSE-010424 SHAY OCHOA 1.4.24

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



TELEPHONE: (254) 299-2450

Page 1 of 1

Cell: (254) 749-6266

Client/Project: WMARSS	Contact: Scott Espen/Michael Garcia	TX Permit No.: TX0026506
Address: 1147 Treatment Plant Road	Phone No.: 254-299-2450	WQ Permit No.: WQ0011071-001
Waco, Texas 76707	FAX No.: 254-299-2453	Collected by: Beathy Hand

	e ID Obs Corr Temp		Obs Corr Temp Temp °C °C		Sample Name, Site		Collection			Container	Cook or	Preser-	Verified	
Laboratory Use Only		Description or Case Number	Date		Time		Volume / Type	Grab or Composite	vation		Analysis Requested			
19894-23	5.2	5.1	WMARSS REUSE	12/19/2	023 (0)08:	24 AM	AQ	P-500	Grab	1,2	1.0	T-PHOS		
19895-23	上	上	WMARSS REUSE	12/19/2	023	24 AM	AQ	P-1000	Grab	1	_	CBOD		
	-													
Comments	s :									Labora	ntory Com	ments:		
sample is received outside h	oldtime's or pr		ements, initial to authorize analysis:	Placed in	Date	Time		Received	hv	+2-				
	ocidimens or pr	Γime	ements, initial to authorize analysis: Relinquished by: Blocking days	Refrigator Initials	Date 12-19-23	Time 4:57	ANT	Received	by:	+2-				
Date	1 8.3	Time SAM	Relinquished by:	A or B A or B A or B	Date 12-19-23 12-19-23	1,000	AN Jeu	Received Willis's	att	+2-				
Date	1 8.3	Time SAM	Relinquished by:	A or B	12-19-23	4:57	AN Jew	Villis	att	TO I	R-1	ments: PS: 7255-1-1576		

REUSE	REPORT DATE: 1.	LAB CONTACT: SHAY	REPORT ID: WMARSSRI	REUSE MONITORING	WMARSS	DECEMBER 2023 - CITY OF WACO
	1.4.24	SHAY OCHOA	WMARSSREUSE-010424	NG O		OF WACO

CITY OF WACO P.O. BOX 2570 Waco, Texas 76707



Page 1 of 1

TELEPHONE: (254) 299-2450

Cell: (254) 749-6266

Client/Project: WMARSS Contact: Scott Espen/Michael Garcia TX Permit No.: TX0026506 Address: 1147 Treatment Plant Road Phone No.: 254-299-2450 WQ Permit No.: WQ0011071-001 Beatric Hand Waco, Texas 76707 Collected by: FAX No.: 254-299-2453

Obs Corr Temp Temp *C *C	Sample Name, Site	Collection			Container	COMPOSITION CONTRACTOR	Preser-	Verified		
Jse Only	Description or Case Number	Dat	e	Time		Number/ Volume / Type	Grab or Composite	vation		Analysis Requested
67 66	WMARSS REUSE	12/26/2	1023 Q	MAIO	AQ	P-500	Grab	1,2	1-0	T-PHOS
1 1	WMARSS REUSE	12/26/2	0		AQ	P-1000	Grab	1	/	CBOD
Comments: Sample is received outside holdline's or preservation requirements, initial to authorize analysis:							by:			ments: -7255 1576
9:05AM	Bootmatters Will's Smith	A or B	12:26-23		pre	/illis +	Sutt			
A ALA	01	A or B		1148	0	11) /	7		
	time/s or preservation requir	WMARSS REUSE WMARSS REUSE WMARSS REUSE WMARSS REUSE Time Relinquished by:	WMARSS REUSE 12/26/2 WMARSS REUSE 12/26/2 WMARSS REUSE 12/26/2 Time Relinquished by: Placed in Refrigator Initials A or B	Itimels or preservation requirements, initial to authorize analysis: Time Relinquished by: Placed in Refrigator Initials A or B	WMARSS REUSE 12/26/2023 9:01AM WMARSS REUSE 12/26/2023 9:01AM WMARSS REUSE 12/26/2023 9:01AM Itimels or preservation requirements. Initial to authorize analysis: Time Relinquished by: Placed In Refrigator Initials Date Time A or B	Isonoly WMARSS REUSE 12/26/2023 9:01AM AQ WMARSS REUSE 12/26/2023 9:01AM AQ Imals or preservation requirements. initial to authorize analysis: Time Relinquished by: Placed in Refrigator Initials A or B	Type WMARSS REUSE 12/26/2023 9:01AM AQ P-500 WMARSS REUSE 12/26/2023 9:01AM AQ P-1000 It in the ser preservation requirements, initial to authorize analysis: Time Relinquished by: Placed in Refrigator Initials A or B A or B	Itels or preservation requirements, initial to authorize analysis: Time Relinquished by: Placed in Refrigator Initials Page 12/26/2023 Pio IAM AQ P-500 Grab Type Type 12/26/2023 Pio IAM AQ P-500 Grab A or B	Type WMARSS REUSE 12/26/2023 9: DIAM AQ P-500 Grab 1,2 WMARSS REUSE 12/26/2023 9: DIAM AQ P-1000 Grab 1 Labora Labora Time Relinquished by: Placed in Refrigator Initials Placed in Refrigator Initials A or B	Intelligence of the septemental vital to authorize analysis: Time Relinquished by: Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed in Refrigator Initials Placed I

	REPORT DATE:	LAB CONTACT:	REPORT ID:	REUS		DECEMBER 2	
	1.4.24	SHAY OCHOA	WMARSSREUSE-010424	REUSE MONITORING	WMARSS	DECEMBER 2023 - CITY OF WACO	

CLIENT IDENTIFICATION INFORMATION:
CITY OF WACO
PO BOX 2570
WACO, TEXAS 76702-2570

BIO CHEM LAB, INC. 4751 TOKIO ROAD WEST, TX 76691