Technical Package Cover Page

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
   - Alternative Language (Spanish)
4. Application materials *
5. Draft permit *
6. Technical summary or fact sheet *

* **NOTE:** This application was declared Administratively Complete before June 1, 2024. The application materials, draft permit, and technical summary or fact sheet are available for review at the Public Viewing Location provided in the NAPD.

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

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 McGregor (CN600755631) operates the City of McGregor Wastewater Treatment Plant (WWTP) RN101609220. a wastewater treatment plant that treats their water utilizing bar screening, an oxidation ditch, final clarification, and chlorine disinfection. The facility is located 2829 South Main St., in McGregor, McLennan County, Texas 76657.

Renewal of the City of McGregor WWTP Municipal Domestic Wastewater Permit; Major Amendment for expansion and upgrades to the facility to 1.67 million gallons per day; Implementation of enhanced treatment systems to meet new effluent limits.

Discharges from the facility are expected to contain elevated levels of nitrogen and phosphorus, and low dissolved oxygen concentrations. Industrial waste which originates from the growing local industry are treated by *bar screenings which remove large quantities of solid waste, then move into an oxidation ditch to promote the biological process to further promote the decrease in biological oxygen demand (BOD). Remaining solids are separated via final clarification, then water is disinfected using chlorine injection into serpentine basins. The water is dechlorinated using sulfur dioxide prior to discharge.*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0010219002

APPLICATION. City of McGregor, P.O. Box 192, McGregor, Texas 76657, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010219002 (EPA I.D. No. TX0023914) to authorize an increase in the discharge of treated wastewater to a volume not to exceed an annual average flow of 1,670,000 gallons per day. The domestic wastewater treatment facility is located at 2829 South Main Street, McGregor, in McLennan County, Texas 76657. The discharge route is from the plant site to onsite ditch; thence to an unnamed tributary; thence to Middle Bosque/South Bosque River. TCEQ received this application on August 24, 2023. The permit application will be available for viewing and copying at McGregor City Hall, 302 South Madison Avenue, McGregor, Texas prior to the date this notice is published in the newspaper. 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=-97.395555,31.415555&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 county-wide 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.**

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. 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 McGregor at the address stated above or by calling Mr. Robert Meyers, Plant Supervisor, at 254-379-0561.

Issuance Date: October 18, 2023

Texas Commission on Environmental Quality

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

AMENDMENT

PERMIT NO. WQ0010219002

APPLICATION AND PRELIMINARY DECISION. City of McGregor, P.O. Box 192, McGregor, Texas 76657 has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010219002 to authorize an increase in the discharge of treated domestic wastewater from an annual average flow not to exceed 1,100,000 gallons per day to an annual average flow not to exceed 1,670,000 gallons per day. TCEQ received this application on August 24, 2023.

The facility is located at 2829 South Main Street, in McLennan County, Texas 76657. The treated effluent is discharged to an onsite ditch, thence to an unnamed tributary, thence to on-channel ponds, thence to an unnamed tributary, thence to Middle Bosque/South Bosque River in Segment No. 1246 of the Brazos River Basin. The unclassified receiving water use is minimal life use for the onsite ditch and intermediate aquatic life use for the unnamed tributary and the on-channel ponds. The designated uses for Segment No. 1246 are primary contact recreation and high aquatic life use. In accordance with 30 Texas Administrative Code Section 307.5 and the TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the unnamed tributary and on-channel ponds, which has been identified as having intermediate aquatic life uses respectively. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received. 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=-97.395555,31.415555&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 McGregor City Hall, 302 South Madison Avenue, McGregor, Texas.

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.**

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 McGregor at the address stated above or by calling Mr. Robert Meyers, Plant Supervisor, at 254-379-0561.

Issuance Date: May 1, 2025

TPDES PERMIT NO.
WQ0010219002
[For TCEQ office use only - EPA I.D. No. TX0023914]

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

This is a major amendment with renewal that replaces TPDES Permit No. WQ0010219002 issued on December 30, 2013.

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

City of McGregor

whose mailing address is

P.O. Box 192
McGregor, Texas 76657

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

located at 2829 South Main Street, in McLennan County, Texas 76657

to an onsite ditch, thence to an unnamed tributary, thence to on-channel ponds, thence to an unnamed tributary, thence to Middle Bosque/South Bosque River in Segment No. 1246 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

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through 2 years and 364 days, the permittee is authorized to discharge subject to the following effluent limitations:

   The annual average flow of effluent shall not exceed 1.10 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 3,056 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily 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 (92)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (140)	25	40	60	Two/week	Composite
Ammonia Nitrogen	3 (28)	6	10	15	Two/week	Composite
Total Phosphorus	Report (Report)	N/A	Report	N/A	Two/week	Composite
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	One/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 week 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 4.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued) Outfall Number 001

	7-day Minimum	30-day Average	Measurement Frequency	Sample Type
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51710) *Ceriodaphnia dubia* (3-brood NOEC[1])	96%	96%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 80% (Parameter 51710) *Ceriodaphnia dubia* (3-brood NOEC[1])	80%	80%	1/quarter	Composite
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51714) *Pimephales promelas* (7-day chronic NOEC[1])	96%	96%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 80% (Parameter 51714) *Pimephales promelas* (7-day NOEC[1])	80%	80%	1/quarter	Composite

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is defined as a statistically significant difference between a specified effluent dilution and the control for toxicity (lethal or sublethal effects, whichever is specified).

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon three years from the date of issuance and lasting through the completion of expansion to the 1.67 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The annual average flow of effluent shall not exceed 1.10 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 3,056 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily 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)	5 (46)	10	20	30	Two/week	Composite
Total Suspended Solids	5 (46)	10	20	30	Two/week	Composite
Ammonia Nitrogen	2 (18)	5	10	15	Two/week	Composite
Total Phosphorus	1 (9.2)	2	4	6	Two/week	Composite
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	One/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 week 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 4.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued) Outfall Number 001

	7-day Minimum	30-day Average	Measurement Frequency	Sample Type
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51710) *Ceriodaphnia dubia* (3-brood NOEC[1])	96%	96%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 80% (Parameter 51710) *Ceriodaphnia dubia* (3-brood NOEC[1])	80%	80%	1/quarter	Composite
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51714) *Pimephales promelas* (7-day chronic NOEC[1])	96%	96%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 80% (Parameter 51714) *Pimephales promelas* (7-day NOEC[1])	80%	80%	1/quarter	Composite

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is defined as a statistically significant difference between a specified effluent dilution and the control for toxicity (lethal or sublethal effects, whichever is specified).

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of expansion to the 1.67 million gallons per day (MGD) facility 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 1.67 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 4,639 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (70)	10	20	30	Two/week	Composite
Total Suspended Solids	5 (70)	10	20	30	Two/week	Composite
Ammonia Nitrogen	1.5 (21)	3	6	10	Two/week	Composite
Total Phosphorus	1 (14)	2	4	6	Two/week	Composite
E. coli, colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	One/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 week 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 twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued) Outfall Number 001

	7-day Minimum	30-day Average	Measurement Frequency	Sample Type
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	96%	96%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 80% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	80%	80%	1/quarter	Composite
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51714)				
Pimephales promelas (7-day chronic NOEC[1])	96%	96%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 80% (Parameter 51714)				
Pimephales promelas (7-day NOEC[1])	80%	80%	1/quarter	Composite

[1] The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. A significant effect is defined as a statistically significant difference between a specified effluent dilution and the control for toxicity (lethal or sublethal effects, whichever is specified).

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.

b. 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 μg/L);

   ii. Two hundred micrograms per liter (200 μg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/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 μg/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:

   i. 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

Pollutant	Ceiling Concentration (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* 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:

Alternative 1 - 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:

   Alternative 2 - 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 § 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 § 312.82(a)(2)(C)(iv-vi) for specific information; or

   Alternative 4 - 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).

Alternative 2 - 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.

Alternative 3 - 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.

v. 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.

Alternative 1 - 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.

Alternative 8 - 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 (TCLP) Test	- annually
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
0 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

Pollutant	Cumulative Pollutant Loading Rate (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

Pollutant	Monthly Average Concentration (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 five years. 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 indefinitely. 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.

3. 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.

TCEQ Revision 06/2020

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 B facility must be operated by a chief operator or an operator holding a Class B 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.

3. There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge.

4. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).

5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.

6. 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, 1/week may be reduced to 2/month in both the Interim phase and the Final phase. **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.

7. Prior to operation of the Interim II phase and prior to construction of the Final phase treatment facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit

plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the effluent limitations required on Page 2b – 2e of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

8. The permittee shall conduct instream monitoring. Within 180 days of permit issuance, the permittee shall submit an instream monitoring work plan to the TCEQ Compliance Monitoring Team (MC-224) and cc the Standards Implementation Team (MC-150). The TCEQ may disapprove or modify the work plan within 60 days of receipt, with no response being equivalent to approval. The instream monitoring shall be conducted to collect representative values of chloride. Monitoring shall occur at 1) a minimum of one sampling station on the Middle Bosque/South Bosque River, upstream of the confluence with the unnamed tributary, and one sampling station on the Middle Bosque/South Bosque River, downstream of the confluence with the unnamed tributary. Monitoring shall be done at a minimum frequency of once per month and include at least 30 samples for chloride from each location. Samples should be taken at regular intervals to ensure data is obtained throughout the year and includes all seasons. To the extent possible, the data should reflect baseline flow conditions. Data collection and analytical methods shall conform to guidelines set forth in the Surface Water Quality Monitoring Procedures, Volume 1 (RG-415, revised August 2012). The duration of the study shall be 3 years from the date of implementation and annual progress reports shall be submitted by December 31st of each year to the TCEQ Compliance Monitoring Team (MC-224), and cc the Standards Implementation Team (MC150).

9. The permittee shall achieve compliance with the Interim II permitted effluent limitations for $CBOD_5$, TSS, NH_3-N, and Total Phosphorus required on Page 2b of the permit in accordance with the following schedule for the construction of treatment facilities.

   The permittee shall submit quarterly progress reports in accordance with the following schedule. The requirement to submit quarterly progress reports shall expire three years from the date of permit issuance.

   PROGRESS REPORT DATES
   January 1
   April 1
   July 1
   October 1

   The quarterly progress reports shall include a discussion of the interim requirements that have been completed at the time of the report and shall address the progress towards attaining the water quality-based final effluent limitations included on page 2b for Outfall 001 no later than three years from the date of permit issuance.

   Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. All reports shall be submitted to the TCEQ Regional Office (MC Region 9) and the Water Quality Compliance Monitoring Team of the Enforcement Division (MC 224) of the TCEQ.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed-cup flash point of less than 140° Fahrenheit (60° Celsius) using the test methods specified in 40 CFR § 261.21;

   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with a pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. Any pollutant, including oxygen-demanding pollutants (e.g., biochemical oxygen demand), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

   e. Heat in amounts which will inhibit biological activity in the POTW, resulting in Interference, but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

   h. Any trucked or hauled pollutants except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403 [*rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798*].

3. The permittee shall provide adequate notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days subsequent to the permittee's knowledge of either of the following:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were 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.

   Any 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 July 2007

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 28%, 37%, 50%, 66%, and 89% effluent. The critical dilution, defined as 89% 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;

4) 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;

5) 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;

6) 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 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.

3) 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

1) 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.

2) 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.

10) 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. Persistent Toxicity

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. Toxicity Reduction Evaluation

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-92/081). 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;

3) 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:

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;

3) 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

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	28%	37%	50%	66%	89%
A						
B						
C						
D						
E						
F						
G						
H						
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 (89%): _____ YES _____ NO

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	28%	37%	50%	66%	89%
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 (89%): _____ 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

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
28%							
37%							
50%							
66%							
89%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

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 dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to significant nonlethal effects?

   CRITICAL DILUTION (89%): _____ YES _____ 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	B	C	D	E	24h	48h	7 day	
0%									
28%									
37%									
50%									
66%									
89%									

* Coefficient 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 (89%): _____ 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. Persistent Mortality

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. Toxicity Reduction Evaluation

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 chemical-specific 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, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) 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;

3) 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

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

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

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010219002, EPA I.D. No. TX0023914, 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 McGregor P.O. Box 192 McGregor, Texas 76657
Prepared By:	Kimberly Kendall, P.E. Municipal Permits Team Wastewater Permitting Section (MC 148) Water Quality Division (512) 239-4540
Date:	December 11, 2024
Permit Action:	Major Amendment with 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 an amendment of the existing permit to authorize an increase in the discharge of treated domestic wastewater from an annual average flow not to exceed 1.10 million gallons per day (MGD) to an annual average flow not to exceed 1.67 MGD. The existing wastewater treatment facility serves the City of McGregor.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 2829 South Main Street, in McLennan County, Texas 76657.

Outfall Location:

Outfall Number	Latitude	Longitude
001	31.414219 N	97.396074 W

The treated effluent is discharged to an onsite ditch, thence to an unnamed tributary, thence to on-channel ponds, thence to an unnamed tributary, thence to Middle Bosque/South Bosque River in Segment No. 1246 of the Brazos River Basin. The unclassified receiving water use is minimal life use for the onsite ditch and intermediate aquatic life use for the unnamed tributary and the on-channel ponds. The designated

uses for Segment No. 1246 are primary contact recreation and high aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The City of McGregor City of McGregor Wastewater Treatment Facility is an activated sludge process plant operated in the extended aeration mode. Treatment units for the Interim phase include a bar screen, an oxidation ditch, two final clarifiers, a sludge dewatering unit, sand drying beds, and a chlorine contact chamber and dechlorination chamber. Treatment units for the Final phase include an additional chlorine contact chamber and dechlorination chamber, a Huber step screen, and a cloth filtration unit. The facility is operating in the Interim phase.

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Turkey Creek Landfill, Permit No. 1417D, in Johnson County. 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 McGregor WWTP does appear to receive significant industrial wastewater contributions. The WWTP receives process wastewater from two significant industrial user (SIU). The process wastewater flow from the SIU contributes less than 0.600% of the WWTP current maximum hydraulic capacity. The POTW has not experienced any instances of pass through or interference, therefore, at this time, the TCEQ is not requiring the permittee to develop a pretreatment program.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period April 2021 through April 2023. 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.

Parameter	Average of Daily Avg
Flow, MGD	0.71
$CBOD_5$, mg/l	3.0
TSS, mg/l	5.4
NH_3-N, mg/l	0.93
E. coli, CFU or MPN per 100 ml	3

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. INTERIM I PHASE EFFLUENT LIMITATIONS AND MONITORING

REQUIREMENTS

The annual average flow of effluent shall not exceed 1.10 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 3,056 gallons per minute (gpm).

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	92	15	25
TSS	15	138	25	40
NH_3-N	3	28	6	10
Total Phosphorus (P)	Report	Report	N/A	Report
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, CFU or MPN per 100 ml	126	N/A	N/A	399
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	96%		96%	
Sublethal WET limit 80% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	80%		80%	
Lethal WET limit 96% (Parameter 51714)				
Pimephales promelas (7-day chronic NOEC[1])	96%		96%	
Sublethal WET limit 80% (Parameter 51714)				
Pimephales promelas (7-day NOEC[1])	80%		80%	

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week 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. 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.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week
Total P	Two/week
DO	Two/week
E. coli	One/week
Lethal WET Limit	One/quarter

Sublethal WET Limit	One/quarter

B. INTERIM II PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 1.10 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 3,056 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	5	46	10	20
TSS	5	46	10	20
NH_3-N	2	18	5	10
Total P	1	9.2	2	4
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, CFU or MPN per 100 ml	126	N/A	N/A	399
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	96%		96%	
Sublethal WET limit 80% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	80%		80%	
Lethal WET limit 96% (Parameter 51714)				
Pimephales promelas (7-day chronic NOEC[1])	96%		96%	
Sublethal WET limit 80% (Parameter 51714)				
Pimephales promelas (7-day NOEC[1])	80%		80%	

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week 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. 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.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week
Total P	Two/week
DO	Two/week

E. coli	One/week
Lethal WET Limit	One/quarter
Sublethal WET Limit	One/quarter

C. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 1.67 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 4,639 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	5	70	10	20
TSS	5	70	10	20
NH_3-N	1.5	21	3	6
Total P	1	14	2	4
DO (minimum)	6.0	N/A	N/A	N/A
E. coli, CFU or MPN/100 ml	126	N/A	N/A	399
Lethal Whole Effluent Toxicity (WET) limit 96% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	96%		96%	
Sublethal WET limit 80% (Parameter 51710)				
Ceriodaphnia dubia (3-brood NOEC[1])	80%		80%	
Lethal WET limit 96% (Parameter 51714)				
Pimephales promelas (7-day chronic NOEC[1])	96%		96%	
Sublethal WET limit 80% (Parameter 51714)				
Pimephales promelas (7-day NOEC[1])	80%		80%	

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week 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. 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.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week

Total P	Two/week
DO	Two/week
E. coli	One/week
Lethal WET Limit	One/quarter
Sublethal WET Limit	One/quarter

D. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Turkey Creek Landfill, Permit No. 1417D, in Johnson County. 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.

E. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 305, which references 40 Code of Federal Regulations (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.

F. 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 30%, 41%, 54%, 80%, and 96%. The low-flow effluent concentration (critical dilution) is defined as 96% 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*).

G. BUFFER ZONE REQUIREMENTS

The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).

H. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested effluent limitations, based on a 30-day average, of 10 mg/l BOD_5, 15 mg/l TSS, 3 mg/l NH_3-N, 0 mg/l TP and 4.0 mg/l minimum DO for Interim phase and 5 mg/l BOD_5, 12 mg/l TSS, 1.5 mg/l NH_3-N, 0 mg/l TP and 6.0 mg/l minimum DO in the Final phase. However, effluent limitations in the Interim I phase of the draft permit, based on a 30-day average, are 10 mg/l $CBOD_5$, 15 mg/l TSS, 3 mg/l NH_3-N, reporting of TP, 126 CFU or MPN of *E. coli* per 100 ml and 4.0 mg/l minimum DO. Effluent limitations in the Interim II phase of the draft permit, based on a 30-day average, are 5 mg/l $CBOD_5$, 5 mg/l TSS, 2 mg/l NH_3-N, 1 mg/l TP, 126 CFU or MPN of *E. coli* per 100 ml and 4.0 mg/l minimum DO. The effluent limitations in the Final phase of the draft permit, based on a 30-day average, are 5 mg/l $CBOD_5$, 5 mg/l TSS, 1.5 mg/l NH_3-N, 1 mg/l TP, 126 CFU or MPN of *E. coli* per 100 ml and 6.0 mg/l minimum DO.

I. SUMMARY OF CHANGES FROM EXISTING PERMIT

More stringent effluent limitations are required in the draft permit than exist in the current permit. A Final phase with an annual average flow of 1.67 MGD was included in the draft permit.

An interim three-year compliance period is included in the draft permit for CBOD5, TSS, NH3-N, and Total Phosphorus in accordance with 30 TAC § 307.2(f) and 40 CFR § 122.47. A compliance schedule is included in the draft permit according to the requirements of 40 CFR § 122.47(a)(3). Other Requirement No. 9 of the draft permit was added to provide progress reports quarterly for compliance with the new effluent limits.

The Standard Permit Conditions, Sludge Provisions, Other Requirements, and Biomonitoring sections of the draft permit have been updated. Pretreatment requirements have been added to the draft permit.

The daily maximum bacteria limit has been changed from 394 CFU or MPN per 100 ml to 399 CFU or MPN per 100 ml, based on the U.S. Environmental Protection Agency (EPA)-approved portions of the 2010 Texas Surface Water Quality Standards (TSWQS).

In keeping with EPA Region 6 policy, which acknowledges the difficulty in identifying toxicants responsible for sublethal effects at high dilutions, the sublethal WET limit shall be implemented at the 80% effluent dilution instead of the critical dilution of 96%.

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.

Certain accidental discharges or spills of treated or untreated wastewater from wastewater treatment facilities or collection systems owned or operated by a local government may be reported on a monthly basis in accordance with 30 TAC § 305.132.

Other Requirement No. 4 in the existing permit has been removed because this provision is covered under 30 TAC § 305.62(d), which authorizes the TCEQ to reopen an issued permit when necessary.

SECTION IV, REQUIREMENTS APPLYING TO SLUDGE OR BIOSOLIDS TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING, has been added to the Sludge Provisions of the draft permit to allow the transportation of sludge or biosolids to another facility.

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

Other Requirement No. 8 was added to the draft permit and Other Requirement Nos. 3 and 6 from the existing permit were updated in the draft permit.

Other Requirement No. 9 of the existing permit was removed as it was no longer needed and the WET limits are now in effect.

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).

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged to an onsite ditch, thence to an

unnamed tributary, thence to on-channel ponds, thence to an unnamed tributary, thence to Middle Bosque/South Bosque River in Segment No. 1246 of the Brazos River Basin. The unclassified receiving water use is minimal life use for the onsite ditch and intermediate aquatic life use for the unnamed tributary and the on-channel ponds. The designated uses for Segment No. 1246 are primary contact recreation and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. In accordance with 30 Texas Administrative Code Section 307.5 and the TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the unnamed tributary and on-channel ponds, which has been identified as having intermediate aquatic life uses respectively. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received. All determinations are preliminary and subject to additional review and/or revisions.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS's) 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 considered 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. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 1246 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 610 mg/l total dissolved solids (TDS), 66.6 mg/l sulfate, and 127 mg/l chloride present in the effluent. The segment criteria for Segment No. 1246 are 700 mg/l for TDS, 260 mg/l for sulfate, and 50 mg/l for chlorides.

Based on dissolved solids screening, the permittee shall conduct instream monitoring. Within 180 days of permit issuance, the permittee shall submit an instream monitoring work plan to the TCEQ Compliance Monitoring Team (MC-22) and cc the Standards Implementation Team (MC-150). The TCEQ may disapprove or modify the work plan within 60 days of receipt, with no response being equivalent to approval. The

instream monitoring shall be conducted to collect representative values of chloride. Monitoring shall occur at 1) a minimum of one sampling station on the Middle Basque/South Basque River, upstream of the confluence with the unnamed tributary, and one sampling station on the Middle Bosque/South Bosque River, downstream of the confluence with the unnamed tributary. The monitoring locations should be outside of any mixing zone, or influence of the effluent. Monitoring shall be done at a minimum frequency of once per month and include at least 30 samples for chloride from each location. Samples should be taken at regular intervals to ensure data is obtained throughout the year and includes all seasons. To the extent possible, the data should reflect baseline flow conditions. Data collection and analytical methods shall conform to guidelines set forth in the Surface Water Quality Monitoring Procedures, Volume 1 (RG-451, revised August 2012). The duration of the study shall be 3 years from the date of implementation and annual progress reports shall be submitted by December 31st of each year to the TCEQ Compliance Monitoring Team (MC-224), and cc the Standards Implementation Team (MC150). See Attachment A 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).

There is no mixing zone or zone of initial dilution for this discharge directly to an intermittent stream; acute freshwater criteria apply at the end of pipe. Chronic freshwater criteria are applied in the perennial freshwater stream.

For the intermittent stream, the percent effluent for acute protection of aquatic life is 100% because the 7Q2 of the intermittent stream is 0.0 cfs. This effluent percentage also provides acute protection of aquatic life in the perennial stream. TCEQ uses the mass balance equation to estimate dilution in the perennial stream during critical conditions. The estimated dilution for chronic protection of aquatic life is calculated using the permitted flow of 1.67 MGD and the 7-day, 2-year (7Q2) flow of 0.1 cfs for an unnamed tributary, the perennial stream. The following critical effluent percentages are being used:

Acute Effluent %: 100% Chronic Effluent %: 100%

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 136 mg/l for hardness (as calcium carbonate), 12 mg/l chlorides, 7.8 standard units for pH, and 2 mg/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 B 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

Onsite Ditch

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation criteria are applied for human health protection in the perennial stream. Human health screening using incidental freshwater fish tissue criteria (= 10 X freshwater fish tissue criteria) is applicable due to the waterbody that support incidental freshwater fisheries. TCEQ uses the mass balance equation to estimate dilution in the perennial stream during average flow conditions. The estimated dilution for human health protection is calculated using the permitted flow of 1.67 MGD and the harmonic mean flow of 0.2 cfs for an unnamed tributary. The following critical effluent percentage is being used:

Human Health Effluent %: 8%

Middle Bosque/South Bosque River (Segment No. 1246)

Water quality-based effluent limitations for the protection of human

health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation 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 1.67 MGD and the harmonic mean flow of 0.2 cfs for Middle Bosque/South Bosque River (Segment 1246). The following critical effluent percentage is being used:

Human Health Effluent %: 8%

On-Channel Ponds

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into lakes and reservoirs. Human health screening using incidental freshwater fish tissue criteria (= 10 X freshwater fish tissue criteria) is applicable due to the waterbody that support incidental freshwater fisheries. The human health mixing zone for this discharge is defined as a 200-foot radius from the point where the discharge enters on-channel ponds. TCEQ practice is to establish a minimum estimated effluent percentage at the edge of the human health mixing zone for discharges that are 10 MGD or less into sections of lakes or reservoirs that are at least 200 feet wide. This critical effluent percentage is:

Human Health Effluent %: 8%

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 B 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. 1246, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

(b) PERMIT ACTION

None.

(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 twenty-three 24-hour chronic tests.

In the three year period of record for the water flea, the permittee has performed twelve tests with one demonstration of significant mortality for the chronic test.

In the three year period of record for the fathead minnow the permittee performed eleven tests with no demonstrations of significant mortality for the chronic test.

The lethal and sublethal WET limits for both test species are retained. Since both test species already have lethal and sublethal WET limits, an Reasonable Potential (RP) determination was not performed.

Because of a WET limit violation by the water flea, only the fathead minnow is eligible for the testing frequency reduction.

(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.

In keeping with EPA Region 6 policy, which acknowledges the difficulty in identifying toxicants responsible for sublethal effects at high dilutions, the sublethal WET limit shall be implemented at the 80% effluent dilution instead of the critical dilution of 96%.

(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 twelve 24-hour acute tests were performed, with no demonstrations of significant morality.

(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 Kimberly Kendall, P.E. at (512) 239-4540.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WQ0010219002 issued on December 30, 2013.

B. APPLICATION

Application received on August 24, 2023, and additional information received on September 15, October 4 and December 4, 2023.

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

Menu 2 - Discharge to an Intermittent Stream within 3 Miles of a Perennial Stream

Screen the Perennial Stream

Applicant Name:	**City of McGregor**
Permit Number, Outfall:	**10219-002**
Segment Number:	**1246**

Enter values needed for screening:			**Data Source (edit if different)**
QE - Average effluent flow	**1.67**	MGD	
QS - Perennial stream harmonic mean flow	**0.20**	cfs	Critical conditions memo
QE - Average effluent flow	**2.5839**	cfs	Calculated
CA - TDS - ambient segment concentration	**327**	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	**16**	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	**52**	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	**700**	mg/L	2022 TSWQS, Appendix A
CC - chloride - segment criterion	**50**	mg/L	2022 TSWQS, Appendix A
CC - sulfate - segment criterion	**260**	mg/L	2022 TSWQS, Appendix A
CE - TDS - average effluent concentration	**610**	mg/L	Permit application
CE - chloride - average effluent concentration	**127**	mg/L	Permit application
CE - sulfate - average effluent concentration	**66.6**	mg/L	Permit application

Screening Equation

$CC \geq [(QS)(CA) + (QE)(CE)]/[QE + QS]$

No further screening for TDS needed if:	**589.67**	**≤**	**700**
No further screening for chloride needed if:	**119.03**	**≤**	**50**
No further screening for sulfate needed if:	**65.55**	**≤**	**260**

Permit Limit Calculations

TDS

Calculate the WLA	$WLA= [CC(QE+QS) - (QS)(CA)]/QE$	728.87

Calculate the LTA	LTA = WLA * 0.93	677.85
Calculate the daily average	Daily Avg. = LTA * 1.47	**996.44**
Calculate the daily maximum	Daily Max. = LTA * 3.11	**2108.11**
Calculate 70% of the daily average	70% of Daily Avg. =	697.51
Calculate 85% of the daily average	85% of Daily Avg. =	846.97

No permit limitations needed if:	**610**	**≤**	**697.51**		
Reporting needed if:	**610**	**>**	**697.51**	**but ≤**	**846.97**
Permit limits may be needed if:	**610**	**>**	**846.97**		

No permit limitations needed for TDS

Chloride

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	52.63
Calculate the LTA	LTA = WLA * 0.93	48.95
Calculate the daily average	Daily Avg. = LTA * 1.47	**71.95**
Calculate the daily maximum	Daily Max. = LTA * 3.11	**152.23**
Calculate 70% of the daily average	70% of Daily Avg. =	50.37
Calculate 85% of the daily average	85% of Daily Avg. =	61.16

No permit limitations needed if:	**127**	**≤**	**50.37**		
Reporting needed if:	**127**	**>**	**50.37**	**but ≤**	**61.16**
Permit limits may be needed if:	**127**	**>**	**61.16**		

Permit limits may be needed for chloride

Sulfate

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	276.10
Calculate the LTA	LTA = WLA * 0.93	256.77
Calculate the daily average	Daily Avg. = LTA * 1.47	**377.46**
Calculate the daily maximum	Daily Max. = LTA * 3.11	**798.56**
Calculate 70% of the daily average	70% of Daily Avg. =	264.22
Calculate 85% of the daily average	85% of Daily Avg. =	320.84

No permit limitations needed if:	**66.6**	**≤**	**264.22**		
Reporting needed if:	**66.6**	**>**	**264.22**	**but ≤**	**320.84**
Permit limits may be needed if:	**66.6**	**>**	**320.84**		

No permit limitations needed for sulfate

Attachment B: Calculated Water Quality Based Effluent Limitations

TEXTOX MENU #2 - INTERMITTENT STREAM WITHIN 3 MILES OF A FRESHWATER PERENNIAL STREAM/RIVER

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

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 McGregor
TPDES Permit No.:	WQ0010219002
Outfall No.:	001
Prepared by:	Kimberly Kendall, P.E.
Date:	2/12/25

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	an onsite ditch
Perennial Stream/River within 3 Miles:	an unnamed tributary
Segment No.:	1246
TSS (mg/L):	2
pH (Standard Units):	7.8
Hardness (mg/L as $CaCO_3$):	136
Chloride (mg/L):	12
Effluent Flow for Aquatic Life (MGD):	1.67
Critical Low Flow [7Q2] (cfs) for intermittent:	0
Critical Low Flow [7Q2] (cfs) for perennial:	0.1
% Effluent for Chronic Aquatic Life (Mixing Zone):	96.27
% Effluent for Acute Aquatic Life (ZID):	100
Effluent Flow for Human Health (MGD):	1.67
Harmonic Mean Flow (cfs) for perennial:	0.2
% Effluent for Human Health:	92.816
Human Health Criterion (select: PWS, FISH, or INC)	**INC**

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

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	288567.96	0.634		1.00	Assumed
Cadmium	6.60	-1.13	1819014.27	0.216		1.00	Assumed
Chromium (total)	6.52	-0.93	1737969.31	0.223		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	1737969.31	0.223		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	626957.07	0.444		1.00	Assumed
Lead	6.45	-0.80	1618735.92	0.236		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	329923.24	0.602		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	1174732.83	0.299		1.00	Assumed
Zinc	6.10	-0.70	774959.49	0.392		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*FW Chronic Criterion (µg/L)*	*WLAa (µg/L)*	*WLAc (µg/L)*	*LTAa (µg/L)*	*LTAc (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	N/A	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	536	246	307	189	278	588
Cadmium	11.6	0.305	53.7	1.47	30.8	1.13	1.66	3.51
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00415	1.38	0.00320	0.00470	0.00994
Chlorpyrifos	0.083	0.041	0.0830	0.0426	0.0476	0.0328	0.0482	0.101
Chromium (trivalent)	733	95	3281	443	1880	341	501	1061
Chromium (hexavalent)	15.7	10.6	15.7	11.0	9.00	8.48	12.4	26.3
Copper	19.0	12.3	42.8	28.8	24.5	22.2	32.6	69.0
Cyanide (free)	45.8	10.7	45.8	11.1	26.2	8.56	12.5	26.6
4,4'-DDT	1.1	0.001	1.10	0.00104	0.630	0.000800	0.00117	0.00248
Demeton	N/A	0.1	N/A	0.104	N/A	0.0800	0.117	0.248
Diazinon	0.17	0.17	0.170	0.177	0.0974	0.136	0.143	0.302
Dicofol [Kelthane]	59.3	19.8	59.3	20.6	34.0	15.8	23.2	49.2
Dieldrin	0.24	0.002	0.240	0.00208	0.138	0.00160	0.00235	0.00497
Diuron	210	70	210	72.7	120	56.0	82.2	174
Endosulfan I (*alpha*)	0.22	0.056	0.220	0.0582	0.126	0.0448	0.0658	0.139
Endosulfan II (*beta*)	0.22	0.056	0.220	0.0582	0.126	0.0448	0.0658	0.139
Endosulfan sulfate	0.22	0.056	0.220	0.0582	0.126	0.0448	0.0658	0.139
Endrin	0.086	0.002	0.0860	0.00208	0.0493	0.00160	0.00235	0.00497
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0104	N/A	0.00800	0.0117	0.0248
Heptachlor	0.52	0.004	0.520	0.00415	0.298	0.00320	0.00470	0.00994
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	0.08	1.13	0.0831	0.645	0.0640	0.0940	0.198
Lead	90	3.51	382	15.5	219	11.9	17.4	37.0
Malathion	N/A	0.01	N/A	0.0104	N/A	0.00800	0.0117	0.0248
Mercury	2.4	1.3	2.40	1.35	1.38	1.04	1.52	3.23
Methoxychlor	N/A	0.03	N/A	0.0312	N/A	0.0240	0.0352	0.0746
Mirex	N/A	0.001	N/A	0.00104	N/A	0.000800	0.00117	0.00248
Nickel	607	67.5	1008	116	578	89.6	131	278
Nonylphenol	28	6.6	28.0	6.86	16.0	5.28	7.75	16.4
Parathion (ethyl)	0.065	0.013	0.0650	0.0135	0.0372	0.0104	0.0152	0.0323
Pentachlorophenol	19.5	15.0	19.5	15.5	11.2	12.0	16.4	34.7
Phenanthrene	30	30	30.0	31.2	17.2	24.0	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.00	0.0145	1.15	0.0112	0.0164	0.0348
Selenium	20	5	20.0	5.19	11.5	4.00	5.87	12.4
Silver	0.8	N/A	4.44	N/A	2.54	N/A	3.73	7.91
Toxaphene	0.78	0.0002	0.780	0.000208	0.447	0.000160	0.000235	0.000497
Tributyltin [TBT]	0.13	0.024	0.130	0.0249	0.0745	0.0192	0.0282	0.0596
2,4,5 Trichlorophenol	136	64	136	66.5	77.9	51.2	75.2	159
Zinc	152	153	388	406	222	313	326	690

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Water and Fish Criterion (µg/L)*	*Fish Only Criterion (µg/L)*	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1.0	115	1150	1239	1152	1693	3583
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.000124	0.000115	0.000168	0.000357
Anthracene	1109	1317	13170	14189	13196	19398	41040

Antimony	6	1071	10710	11539	10731	15774	33374
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	6260	5822	8557	18104
Benzidine	0.0015	0.107	1.07	1.15	1.07	1.57	3.33
Benzo(*a*)anthracene	0.024	0.025	0.25	0.269	0.250	0.368	0.779
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.0269	0.0250	0.0368	0.0779
Bis(chloromethyl)ether	0.0024	0.2745	2.745	2.96	2.75	4.04	8.55
Bis(2-chloroethyl)ether	0.60	42.83	428.3	461	429	630	1334
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	81.3	75.6	111	235
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	2963	2755	4050	8569
Bromoform [Tribromomethane]	66.9	1060	10600	11420	10621	15612	33031
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	496	461	677	1433
Chlordane	0.0025	0.0025	0.025	0.0269	0.0250	0.0368	0.0779
Chlorobenzene	100	2737	27370	29489	27424	40313	85289
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	1972	1834	2695	5702
Chloroform [Trichloromethane]	70	7697	76970	82928	77123	113370	239851
Chromium (hexavalent)	62	502	5020	5409	5030	7394	15643
Chrysene	2.45	2.52	25.2	27.2	25.3	37.1	78.5
Cresols [Methylphenols]	1041	9301	93010	100209	93195	136996	289835
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.0215	0.0200	0.0294	0.0623
4,4'-DDE	0.00013	0.00013	0.0013	0.00140	0.00130	0.00191	0.00405
4,4'-DDT	0.0004	0.0004	0.004	0.00431	0.00401	0.00589	0.0124
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	5096	4739	6966	14739
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	45.7	42.5	62.4	132
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	6411	5962	8763	18541
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	35544	33055	48591	102802
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	24.1	22.4	32.9	69.8
1,2-Dichloroethane	5	364	3640	3922	3647	5361	11342
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	593800	552234	811784	1717448
Dichloromethane [Methylene Chloride]	5	13333	133330	143650	133595	196384	415479
1,2-Dichloropropane	5	259	2590	2790	2595	3814	8070
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	1282	1192	1752	3708
Dicofol [Kelthane]	0.30	0.30	3	3.23	3.01	4.41	9.34
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.000215	0.000200	0.000294	0.000623
2,4-Dimethylphenol	444	8436	84360	90890	84527	124255	262880
Di-*n*-Butyl Phthalate	88.9	92.4	924	996	926	1360	2879
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	8.59E-07	7.99E-07	0.0000012	0.0000025
Endrin	0.02	0.02	0.2	0.215	0.200	0.294	0.623
Epichlorohydrin	53.5	2013	20130	21688	20170	29649	62728
Ethylbenzene	700	1867	18670	20115	18707	27499	58178
Ethylene Glycol	46744	1.68E+07	1.68E+08	181003804	168333537	247450299	523517301
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.00108	0.00100	0.00147	0.00311
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.00312	0.00291	0.00427	0.00903
Hexachlorobenzene	0.00068	0.00068	0.0068	0.00733	0.00681	0.0100	0.0211
Hexachlorobutadiene	0.21	0.22	2.2	2.37	2.20	3.24	6.85
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	0.0905	0.0842	0.123	0.261
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	2.80	2.61	3.82	8.10
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	3.67	3.42	5.02	10.6

Hexachlorocyclopentadiene	10.7	11.6	116	125	116	170	361
Hexachloroethane	1.84	2.33	23.3	25.1	23.3	34.3	72.6
Hexachlorophene	2.05	2.90	29	31.2	29.1	42.7	90.3
4,4'-Isopropylidenediphenol [Bisphenol A]	1092	15982	159820	172191	160137	235401	498026
Lead	1.15	3.83	38.3	175	163	239	505
Mercury	0.0122	0.0122	0.122	0.131	0.122	0.179	0.380
Methoxychlor	2.92	3.0	30	32.3	30.1	44.1	93.4
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	10687844	9939695	14611351	30912450
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	112933	105028	154391	326637
Nickel	332	1140	11400	20387	18960	27870	58965
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	20180	18767	27587	58365
N-Nitrosodiethylamine	0.0037	2.1	21	22.6	21.0	30.9	65.4
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	45.3	42.1	61.8	130
Pentachlorobenzene	0.348	0.355	3.55	3.82	3.56	5.22	11.0
Pentachlorophenol	0.22	0.29	2.9	3.12	2.91	4.27	9.03
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.00690	0.00641	0.00942	0.0199
Pyridine	23	947	9470	10203	9489	13948	29510
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	2.59	2.40	3.53	7.47
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	284	264	388	821
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	3017	2806	4124	8725
Thallium	0.12	0.23	2.3	2.48	2.30	3.38	7.16
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.119	0.110	0.162	0.342
2,4,5-TP [Silvex]	50	369	3690	3976	3697	5435	11498
1,1,1-Trichloroethane	200	784354	7843540	8450658	7859112	11552894	24441838
1,1,2-Trichloroethane	5	166	1660	1788	1663	2445	5172
Trichloroethylene [Trichloroethene]	5	71.9	719	775	720	1059	2240
2,4,5-Trichlorophenol	1039	1867	18670	20115	18707	27499	58178
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	178	165	243	514

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

Aquatic Life	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	194	236
Cadmium	1.16	1.41
Carbaryl	1.17	1.43
Chlordane	0.00329	0.00399
Chlorpyrifos	0.0337	0.0409
Chromium (trivalent)	351	426
Chromium (hexavalent)	8.72	10.5
Copper	22.8	27.7
Cyanide (free)	8.80	10.6
4,4'-DDT	0.000822	0.000999
Demeton	0.0822	0.0999
Diazinon	0.100	0.121
Dicofol [Kelthane]	16.2	19.7

Dieldrin	0.00164	0.00199
Diuron	57.6	69.9
Endosulfan I (*alpha*)	0.0460	0.0559
Endosulfan II (*beta*)	0.0460	0.0559
Endosulfan sulfate	0.0460	0.0559
Endrin	0.00164	0.00199
Guthion [Azinphos Methyl]	0.00822	0.00999
Heptachlor	0.00329	0.00399
Hexachlorocyclohexane (*gamma*) [Lindane]	0.0658	0.0799
Lead	12.2	14.8
Malathion	0.00822	0.00999
Mercury	1.06	1.29
Methoxychlor	0.0246	0.0299
Mirex	0.000822	0.000999
Nickel	92.1	111
Nonylphenol	5.43	6.59
Parathion (ethyl)	0.0106	0.0129
Pentachlorophenol	11.4	13.9
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	0.0115	0.0139
Selenium	4.11	4.99
Silver	2.61	3.17
Toxaphene	0.000164	0.000199
Tributyltin [TBT]	0.0197	0.0239
2,4,5 Trichlorophenol	52.6	63.9
Zinc	228	277

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	1185	1439
Aldrin	0.000118	0.000143
Anthracene	13578	16488
Antimony	11042	13408
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	5990	7274
Benzidine	1.10	1.33
Benzo(*a*)anthracene	0.257	0.312
Benzo(*a*)pyrene	0.0257	0.0312
Bis(chloromethyl)ether	2.83	3.43
Bis(2-chloroethyl)ether	441	536
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	77.8	94.5
Bromodichloromethane [Dichlorobromomethane]	2835	3442
Bromoform [Tribromomethane]	10929	13270
Cadmium	N/A	N/A
Carbon Tetrachloride	474	575
Chlordane	0.0257	0.0312
Chlorobenzene	28219	34266
Chlorodibromomethane [Dibromochloromethane]	1886	2291
Chloroform [Trichloromethane]	79359	96364
Chromium (hexavalent)	5175	6284
Chrysene	25.9	31.5

Cresols [Methylphenols]	95897	116446
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0206	0.0250
4,4'-DDE	0.00134	0.00162
4,4'-DDT	0.00412	0.00500
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	4876	5921
1,2-Dibromoethane [Ethylene Dibromide]	43.7	53.0
m-Dichlorobenzene [1,3-Dichlorobenzene]	6134	7449
o-Dichlorobenzene [1,2-Dichlorobenzene]	34014	41302
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	23.0	28.0
1,2-Dichloroethane	3752	4557
1,1-Dichloroethylene [1,1-Dichloroethene]	568248	690016
Dichloromethane [Methylene Chloride]	137468	166926
1,2-Dichloropropane	2670	3242
1,3-Dichloropropene [1,3-Dichloropropylene]	1226	1489
Dicofol [Kelthane]	3.09	3.75
Dieldrin	0.000206	0.000250
2,4-Dimethylphenol	86978	105617
Di-*n*-Butyl Phthalate	952	1156
Dioxins/Furans [TCDD Equivalents]	8.21E-07	9.97E-07
Endrin	0.206	0.250
Epichlorohydrin	20754	25202
Ethylbenzene	19249	23374
Ethylene Glycol	173215209	210332754
Fluoride	N/A	N/A
Heptachlor	0.00103	0.00125
Heptachlor Epoxide	0.00299	0.00363
Hexachlorobenzene	0.00701	0.00851
Hexachlorobutadiene	2.26	2.75
Hexachlorocyclohexane (*alpha*)	0.0866	0.105
Hexachlorocyclohexane (*beta*)	2.68	3.25
Hexachlorocyclohexane (*gamma*) [Lindane]	3.51	4.26
Hexachlorocyclopentadiene	119	145
Hexachloroethane	24.0	29.1
Hexachlorophene	29.9	36.3
4,4'-Isopropylidenediphenol [Bisphenol A]	164781	200091
Lead	167	203
Mercury	0.125	0.152
Methoxychlor	30.9	37.5
Methyl Ethyl Ketone	10227945	12419648
Methyl *tert*-butyl ether [MTBE]	108073	131232
Nickel	19509	23690
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	19311	23449
N-Nitrosodiethylamine	21.6	26.2
N-Nitroso-di-*n*-Butylamine	43.3	52.5
Pentachlorobenzene	3.66	4.44
Pentachlorophenol	2.99	3.63
Polychlorinated Biphenyls [PCBs]	0.00659	0.00801
Pyridine	9763	11856
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.47	3.00

1,1,2,2-Tetrachloroethane	271	329
Tetrachloroethylene [Tetrachloroethylene]	2886	3505
Thallium	2.37	2.87
Toluene	N/A	N/A
Toxaphene	0.113	0.137
2,4,5-TP [Silvex]	3804	4619
1,1,1-Trichloroethane	8087026	9819960
1,1,2-Trichloroethane	1711	2078
Trichloroethylene [Trichloroethene]	741	900
2,4,5-Trichlorophenol	19249	23374
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	170	206

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

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

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 McGregor
TPDES Permit No.:	WQ0010219002
Outfall No.:	001
Prepared by:	Kimberly Kendall, P.E.
Date:	2/13/25

DISCHARGE INFORMATION

Receiving Waterbody:	Middle Bosque/South Bosque River
Segment No.:	1246
TSS (mg/L):	2
pH (Standard Units):	7.8
Hardness (mg/L as $CaCO_3$):	136
Chloride (mg/L):	12
Effluent Flow for Human Health (MGD):	1.67
Harmonic Mean Flow (cfs):	0.2
% Effluent for Human Health:	92.82
Human Health Criterion (select: PWS, FISH, or INC)	**FISH**

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

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	288567.96	0.634		1.00	Assumed
Cadmium	6.60	-1.13	1819014.27	0.216		1.00	Assumed
Chromium (total)	6.52	-0.93	1737969.31	0.223		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	1737969.31	0.223		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	626957.07	0.444		1.00	Assumed
Lead	6.45	-0.80	1618735.92	0.236		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	329923.24	0.602		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	1174732.83	0.299		1.00	Assumed
Zinc	6.10	-0.70	774959.49	0.392		1.00	Assumed

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Water and Fish Criterion (µg/L)*	*Fish Only Criterion (µg/L)*	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1.0	115	1150	124	115	169	358
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.0000124	0.0000115	0.0000168	0.0000357
Anthracene	1109	1317	13170	1419	1320	1939	4104
Antimony	6	1071	10710	1154	1073	1577	3337
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A

Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	626	582	855	1810
Benzidine	0.0015	0.107	1.07	0.115	0.107	0.157	0.333
Benzo(*a*)anthracene	0.024	0.025	0.25	0.0269	0.0250	0.0368	0.0779
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.00269	0.00250	0.00368	0.00779
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.296	0.275	0.404	0.855
Bis(2-chloroethyl)ether	0.60	42.83	428.3	46.1	42.9	63.0	133
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	8.13	7.56	11.1	23.5
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	296	276	405	856
Bromoform [Tribromomethane]	66.9	1060	10600	1142	1062	1561	3303
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	49.6	46.1	67.7	143
Chlordane	0.0025	0.0025	0.025	0.00269	0.00250	0.00368	0.00779
Chlorobenzene	100	2737	27370	2949	2742	4031	8528
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	197	183	269	570
Chloroform [Trichloromethane]	70	7697	76970	8293	7712	11337	23985
Chromium (hexavalent)	62	502	5020	541	503	739	1564
Chrysene	2.45	2.52	25.2	2.72	2.53	3.71	7.85
Cresols [Methylphenols]	1041	9301	93010	10021	9319	13699	28983
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.00215	0.00200	0.00294	0.00623
4,4'-DDE	0.00013	0.00013	0.0013	0.000140	0.000130	0.000191	0.000405
4,4'-DDT	0.0004	0.0004	0.004	0.000431	0.000401	0.000589	0.00124
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	510	474	696	1473
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	4.57	4.25	6.24	13.2
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	641	596	876	1854
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	3554	3306	4859	10280
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	2.41	2.24	3.29	6.98
1,2-Dichloroethane	5	364	3640	392	365	536	1134
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	59380	55223	81178	171744
Dichloromethane [Methylene Chloride]	5	13333	133330	14365	13359	19638	41547
1,2-Dichloropropane	5	259	2590	279	260	381	807
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	128	119	175	370
Dicofol [Kelthane]	0.30	0.30	3	0.323	0.301	0.441	0.934
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.0000215	0.0000200	0.0000294	0.0000623
2,4-Dimethylphenol	444	8436	84360	9089	8453	12425	26288
Di-*n*-Butyl Phthalate	88.9	92.4	924	99.6	92.6	136	287
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	8.59E-08	7.99E-08	1.17E-07	2.48E-07
Endrin	0.02	0.02	0.2	0.0215	0.0200	0.0294	0.0623
Epichlorohydrin	53.5	2013	20130	2169	2017	2964	6272
Ethylbenzene	700	1867	18670	2012	1871	2749	5817
Ethylene Glycol	46744	1.68E+07	1.68E+08	18100380	16833354	24745029	52351730
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.000108	0.000100	0.000147	0.000311
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.000312	0.000291	0.000427	0.000903
Hexachlorobenzene	0.00068	0.00068	0.0068	0.000733	0.000681	0.00100	0.00211
Hexachlorobutadiene	0.21	0.22	2.2	0.237	0.220	0.324	0.685
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	0.00905	0.00842	0.0123	0.0261
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	0.280	0.261	0.382	0.810
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	0.367	0.342	0.502	1.06
Hexachlorocyclopentadiene	10.7	11.6	116	12.5	11.6	17.0	36.1
Hexachloroethane	1.84	2.33	23.3	2.51	2.33	3.43	7.26

Hexachlorophene	2.05	2.90	29	3.12	2.91	4.27	9.03
4,4'-Isopropylidenediphenol	1092	15982	159820	17219	16014	23540	49802
Lead	1.15	3.83	38.3	17.5	16.3	23.9	50.5
Mercury	0.0122	0.0122	0.122	0.0131	0.0122	0.0179	0.0380
Methoxychlor	2.92	3.0	30	3.23	3.01	4.41	9.34
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	1068784	993969	1461135	3091245
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	11293	10503	15439	32663
Nickel	332	1140	11400	2039	1896	2787	5896
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	2018	1877	2758	5836
N-Nitrosodiethylamine	0.0037	2.1	21	2.26	2.10	3.09	6.54
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	4.53	4.21	6.18	13.0
Pentachlorobenzene	0.348	0.355	3.55	0.382	0.356	0.522	1.10
Pentachlorophenol	0.22	0.29	2.9	0.312	0.291	0.427	0.903
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.000690	0.000641	0.000942	0.00199
Pyridine	23	947	9470	1020	949	1394	2951
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	0.259	0.240	0.353	0.747
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	28.4	26.4	38.8	82.1
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	302	281	412	872
Thallium	0.12	0.23	2.3	0.248	0.230	0.338	0.716
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.0119	0.0110	0.0162	0.0342
2,4,5-TP [Silvex]	50	369	3690	398	370	543	1149
1,1,1-Trichloroethane	200	784354	7843540	845066	785911	1155289	2444183
1,1,2-Trichloroethane	5	166	1660	179	166	244	517
Trichloroethylene [Trichloroethene]	5	71.9	719	77.5	72.0	105	224
2,4,5-Trichlorophenol	1039	1867	18670	2012	1871	2749	5817
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	17.8	16.5	24.3	51.4

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	118	143
Aldrin	0.0000118	0.0000143
Anthracene	1357	1648
Antimony	1104	1340
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	599	727
Benzidine	0.110	0.133
Benzo(*a*)anthracene	0.0257	0.0312
Benzo(*a*)pyrene	0.00257	0.00312
Bis(chloromethyl)ether	0.283	0.343
Bis(2-chloroethyl)ether	44.1	53.6
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.78	9.45
Bromodichloromethane [Dichlorobromomethane]	283	344
Bromoform [Tribromomethane]	1092	1327
Cadmium	N/A	N/A
Carbon Tetrachloride	47.4	57.5
Chlordane	0.00257	0.00312
Chlorobenzene	2821	3426
Chlorodibromomethane [Dibromochloromethane]	188	229

Chloroform [Trichloromethane]	7935	9636
Chromium (hexavalent)	517	628
Chrysene	2.59	3.15
Cresols [Methylphenols]	9589	11644
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00206	0.00250
4,4'-DDE	0.000134	0.000162
4,4'-DDT	0.000412	0.000500
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	487	592
1,2-Dibromoethane [Ethylene Dibromide]	4.37	5.30
m-Dichlorobenzene [1,3-Dichlorobenzene]	613	744
o-Dichlorobenzene [1,2-Dichlorobenzene]	3401	4130
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	2.30	2.80
1,2-Dichloroethane	375	455
1,1-Dichloroethylene [1,1-Dichloroethene]	56824	69001
Dichloromethane [Methylene Chloride]	13746	16692
1,2-Dichloropropane	267	324
1,3-Dichloropropene [1,3-Dichloropropylene]	122	148
Dicofol [Kelthane]	0.309	0.375
Dieldrin	0.0000206	0.0000250
2,4-Dimethylphenol	8697	10561
Di-*n*-Butyl Phthalate	95.2	115
Dioxins/Furans [TCDD Equivalents]	8.21E-08	9.97E-08
Endrin	0.0206	0.0250
Epichlorohydrin	2075	2520
Ethylbenzene	1924	2337
Ethylene Glycol	17321520	21033275
Fluoride	N/A	N/A
Heptachlor	0.000103	0.000125
Heptachlor Epoxide	0.000299	0.000363
Hexachlorobenzene	0.000701	0.000851
Hexachlorobutadiene	0.226	0.275
Hexachlorocyclohexane (*alpha*)	0.00866	0.0105
Hexachlorocyclohexane (*beta*)	0.268	0.325
Hexachlorocyclohexane (*gamma*) [Lindane]	0.351	0.426
Hexachlorocyclopentadiene	11.9	14.5
Hexachloroethane	2.40	2.91
Hexachlorophene	2.99	3.63
4,4'-Isopropylidenediphenol	16478	20009
Lead	16.7	20.3
Mercury	0.0125	0.0152
Methoxychlor	3.09	3.75
Methyl Ethyl Ketone	1022794	1241964
Methyl *tert*-butyl ether [MTBE]	10807	13123
Nickel	1950	2369
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	1931	2344
N-Nitrosodiethylamine	2.16	2.62
N-Nitroso-di-*n*-Butylamine	4.33	5.25
Pentachlorobenzene	0.366	0.444
Pentachlorophenol	0.299	0.363
Polychlorinated Biphenyls [PCBs]	0.000659	0.000801

Pyridine	976	1185
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.247	0.300
1,1,2,2-Tetrachloroethane	27.1	32.9
Tetrachloroethylene [Tetrachloroethylene]	288	350
Thallium	0.237	0.287
Toluene	N/A	N/A
Toxaphene	0.0113	0.0137
2,4,5-TP [Silvex]	380	461
1,1,1-Trichloroethane	808702	981996
1,1,2-Trichloroethane	171	207
Trichloroethylene [Trichloroethene]	74.1	90.0
2,4,5-Trichlorophenol	1924	2337
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	17.0	20.6

TEXTOX MENU #4 - LAKE OR RESERVOIR

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

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 McGregor
TPDES Permit No:	WQ0010219002
Outfall No:	001
Prepared by:	Kimberly Kendall, P.E.
Date:	2/13/25

DISCHARGE INFORMATION

Receiving Waterbody:	on-channel ponds
Segment No.:	1246
TSS (mg/L):	2
pH (Standard Units):	7.8
Hardness (mg/L as $CaCO_3$):	136
Chloride (mg/L):	12
Effluent Flow for Human Health (MGD):	1.67
% Effluent for Human Health:	8
Human Health Criterion (select: PWS, FISH, or INC)	**INC**

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

Lake/Reservoir Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	288567.96	0.634		1.00	Assumed
Cadmium	6.55	-0.92	1875220.77	0.211		1.00	Assumed
Chromium (total)	6.34	-0.27	1814353.48	0.216		1.00	Assumed
Chromium (trivalent)	6.34	-0.27	1814353.48	0.216		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.45	-0.90	1510334.02	0.249		1.00	Assumed
Lead	6.31	-0.53	1414015.28	0.261		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	6.34	-0.76	1291865.21	0.279		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	1174732.83	0.299		1.00	Assumed
Zinc	6.52	-0.68	2066805.47	0.195		1.00	Assumed

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Water and Fish Criterion (µg/L)*	*Fish Only Criterion (µg/L)*	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1.0	115	1150	14375	13369	19652	41576
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.00143	0.00133	0.00196	0.00414
Anthracene	1109	1317	13170	164625	153101	225058	476144
Antimony	6	1071	10710	133875	124504	183020	387206
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	72625	67541	99285	210053

Benzidine	0.0015	0.107	1.07	13.4	12.4	18.2	38.6
Benzo(*a*)anthracene	0.024	0.025	0.25	3.13	2.91	4.27	9.03
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.313	0.291	0.427	0.903
Bis(chloromethyl)ether	0.0024	0.2745	2.745	34.3	31.9	46.9	99.2
Bis(2-chloroethyl)ether	0.60	42.83	428.3	5354	4979	7319	15484
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	944	878	1290	2729
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	34375	31969	46994	99422
Bromoform [Tribromomethane]	66.9	1060	10600	132500	123225	181140	383229
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	5750	5348	7860	16630
Chlordane	0.0025	0.0025	0.025	0.313	0.291	0.427	0.903
Chlorobenzene	100	2737	27370	342125	318176	467719	989528
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	22875	21274	31272	66161
Chloroform [Trichloromethane]	70	7697	76970	962125	894776	1315321	2782754
Chromium (hexavalent)	62	502	5020	62750	58358	85785	181491
Chrysene	2.45	2.52	25.2	315	293	430	911
Cresols [Methylphenols]	1041	9301	93010	1162625	1081241	1589424	3362660
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.250	0.233	0.341	0.723
4,4'-DDE	0.00013	0.00013	0.0013	0.0163	0.0151	0.0222	0.0469
4,4'-DDT	0.0004	0.0004	0.004	0.0500	0.0465	0.0683	0.144
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	59125	54986	80829	171007
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	530	493	724	1532
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	74375	69169	101678	215114
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	412375	383509	563757	1192712
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	280	260	382	809
1,2-Dichloroethane	5	364	3640	45500	42315	62203	131599
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	6889250	6407003	9418293	19925777
Dichloromethane [Methylene Chloride]	5	13333	133330	1666625	1549961	2278443	4820379
1,2-Dichloropropane	5	259	2590	32375	30109	44259	93638
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	14875	13834	20335	43022
Dicofol [Kelthane]	0.30	0.30	3	37.5	34.9	51.2	108
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.00250	0.00233	0.00341	0.00723
2,4-Dimethylphenol	444	8436	84360	1054500	980685	1441606	3049930
Di-*n*-Butyl Phthalate	88.9	92.4	924	11550	10742	15790	33406
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	0.0000100	0.0000093	0.0000136	0.0000288
Endrin	0.02	0.02	0.2	2.50	2.33	3.41	7.23
Epichlorohydrin	53.5	2013	20130	251625	234011	343996	727774
Ethylbenzene	700	1867	18670	233375	217039	319046	674990
Ethylene Glycol	46744	1.68E+07	1.68E+08	2100000000	1953000000	2870910000	6073830000
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.0125	0.0116	0.0170	0.0361
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.0363	0.0337	0.0495	0.104
Hexachlorobenzene	0.00068	0.00068	0.0068	0.0850	0.0791	0.116	0.245
Hexachlorobutadiene	0.21	0.22	2.2	27.5	25.6	37.5	79.5
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	1.05	0.977	1.43	3.03
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	32.5	30.2	44.4	93.9
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	42.6	39.6	58.2	123
Hexachlorocyclopentadiene	10.7	11.6	116	1450	1349	1982	4193
Hexachloroethane	1.84	2.33	23.3	291	271	398	842
Hexachlorophene	2.05	2.90	29	363	337	495	1048
4,4'-Isopropylidenediphenol [Bisphenol A]	1092	15982	159820	1997750	1857908	2731124	5778092

Lead	1.15	3.83	38.3	1833	1704	2505	5300
Mercury	0.0122	0.0122	0.122	1.53	1.42	2.08	4.41
Methoxychlor	2.92	3.0	30	375	349	512	1084
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	124000000	115320000	169520400	358645200
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	1310250	1218533	1791242	3789636
Nickel	332	1140	11400	510682	474934	698152	1477044
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	234125	217736	320072	677159
N-Nitrosodiethylamine	0.0037	2.1	21	263	244	358	759
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	525	488	717	1518
Pentachlorobenzene	0.348	0.355	3.55	44.4	41.3	60.6	128
Pentachlorophenol	0.22	0.29	2.9	36.3	33.7	49.5	104
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.0800	0.0744	0.109	0.231
Pyridine	23	947	9470	118375	110089	161830	342376
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	30.0	27.9	41.0	86.7
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	3294	3063	4502	9526
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	35000	32550	47848	101230
Thallium	0.12	0.23	2.3	28.8	26.7	39.3	83.1
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	1.38	1.28	1.87	3.97
2,4,5-TP [Silvex]	50	369	3690	46125	42896	63057	133407
1,1,1-Trichloroethane	200	784354	7843540	98044250	91181153	134036294	283573384
1,1,2-Trichloroethane	5	166	1660	20750	19298	28367	60015
Trichloroethylene [Trichloroethene]	5	71.9	719	8988	8358	12286	25994
2,4,5-Trichlorophenol	1039	1867	18670	233375	217039	319046	674990
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	2063	1918	2819	5965

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	13756	16704
Aldrin	0.00137	0.00166
Anthracene	157541	191300
Antimony	128114	155567
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	69499	84392
Benzidine	12.7	15.5
Benzo(*a*)anthracene	2.99	3.63
Benzo(*a*)pyrene	0.299	0.363
Bis(chloromethyl)ether	32.8	39.8
Bis(2-chloroethyl)ether	5123	6221
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	903	1096
Bromodichloromethane [Dichlorobromomethane]	32895	39944
Bromoform [Tribromomethane]	126798	153969
Cadmium	N/A	N/A
Carbon Tetrachloride	5502	6681
Chlordane	0.299	0.363
Chlorobenzene	327403	397561
Chlorodibromomethane [Dibromochloromethane]	21890	26581
Chloroform [Trichloromethane]	920724	1118022
Chromium (hexavalent)	60049	72917

Chrysene	301	366
Cresols [Methylphenols]	1112597	1351010
Cyanide (free)	N/A	N/A
4,4'-DDD	0.239	0.290
4,4'-DDE	0.0155	0.0188
4,4'-DDT	0.0478	0.0581
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	56580	68705
1,2-Dibromoethane [Ethylene Dibromide]	507	615
m-Dichlorobenzene [1,3-Dichlorobenzene]	71174	86426
o-Dichlorobenzene [1,2-Dichlorobenzene]	394630	479194
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	267	325
1,2-Dichloroethane	43542	52872
1,1-Dichloroethylene [1,1-Dichloroethene]	6592805	8005549
Dichloromethane [Methylene Chloride]	1594910	1936676
1,2-Dichloropropane	30981	37620
1,3-Dichloropropene [1,3-Dichloropropylene]	14234	17285
Dicofol [Kelthane]	35.8	43.5
Dieldrin	0.00239	0.00290
2,4-Dimethylphenol	1009124	1225365
Di-*n*-Butyl Phthalate	11053	13421
Dioxins/Furans [TCDD Equivalents]	0.0000095	0.0000115
Endrin	2.39	2.90
Epichlorohydrin	240797	292397
Ethylbenzene	223332	271189
Ethylene Glycol	2009637000	2440273500
Fluoride	N/A	N/A
Heptachlor	0.0119	0.0145
Heptachlor Epoxide	0.0346	0.0421
Hexachlorobenzene	0.0813	0.0987
Hexachlorobutadiene	26.3	31.9
Hexachlorocyclohexane (*alpha*)	1.00	1.22
Hexachlorocyclohexane (*beta*)	31.1	37.7
Hexachlorocyclohexane (*gamma*) [Lindane]	40.7	49.5
Hexachlorocyclopentadiene	1387	1684
Hexachloroethane	278	338
Hexachlorophene	346	421
4,4'-Isopropylidenediphenol [Bisphenol A]	1911786	2321455
Lead	1753	2129
Mercury	1.45	1.77
Methoxychlor	358	435
Methyl Ethyl Ketone	118664280	144092340
Methyl *tert*-butyl ether [MTBE]	1253869	1522556
Nickel	488706	593429
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	224050	272061
N-Nitrosodiethylamine	251	305
N-Nitroso-di-*n*-Butylamine	502	610
Pentachlorobenzene	42.4	51.5
Pentachlorophenol	34.6	42.1
Polychlorinated Biphenyls [PCBs]	0.0765	0.0929
Pyridine	113281	137555
Selenium	N/A	N/A

1,2,4,5-Tetrachlorobenzene	28.7	34.8
1,1,2,2-Tetrachloroethane	3152	3827
Tetrachloroethylene [Tetrachloroethylene]	33493	40671
Thallium	27.5	33.4
Toluene	N/A	N/A
Toxaphene	1.31	1.59
2,4,5-TP [Silvex]	44140	53598
1,1,1-Trichloroethane	93825405	113930850
1,1,2-Trichloroethane	19857	24112
Trichloroethylene [Trichloroethene]	8600	10443
2,4,5-Trichlorophenol	223332	271189
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	1973	2396

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 for Submission *(If other is checked please describe in space provided.)*

☐ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application.)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☒ Other **Major Ammendment & Renewal**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 6007556		RN 101609220

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* *If new Customer, enter previous Customer below:*

City of McGregor

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☒ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees ☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated? ☐ Yes ☒ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following:*

☐ Owner ☐ Operator ☒ Owner & Operator

☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address: P.O. Box 192

City	McGregor	State	TX	ZIP	76657	ZIP + 4	0192

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(254) 840-2806		( ) -

SECTION III: Regulated Entity Information

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 Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC.)

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

City of McGregor

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AUG 24 2023
Water Quality Applications Team

23. Street Address of the Regulated Entity: *(No PO Boxes)*	2829 South Main							
	City	McGregor	State	TX	ZIP	76657	ZIP + 4	
24. County	McLennan							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	

26. Nearest City	State	Nearest ZIP Code
McGregor	TX	76657

27. Latitude (N) In Decimal:	31.415		28. Longitude (W) In Decimal:	-97.396	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
31	24	56	-97	23	44

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
4952		221320	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*
Wastewater Treatment for the City of McGregor

34. Mailing Address:	P.O. Box 192							
	City	McGregor	State	TX	ZIP	76657	ZIP + 4	0192

35. E-Mail Address:	kevans@mcgregor-texas.com

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(254) 840-2806		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0010219002			

SECTION IV: Preparer Information

40. Name:	Joseph W. Jenkins	41. Title:	Sr. Vice President

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 382-0021		( ) -	jjenkins@walkerpartners.com

SECTION V: Authorized Signature

46. 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 signature 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 identified in field 39.

Company:	City of McGregor	Job Title:	CITY MANAGER
Name*(In Print)* :	KEVIN P. EVANS	Phone:	(254)840 2806
Signature:	Kevin P Evans	Date:	8-15-23

RECEIVED
AUG 24 2023
Water Quality Applications Team

Receiving Water Assessment Determination Form for new and amended TPDES permit applications

Submit to Standards Implementation Team for review.

WQ Permit Number WQ0010219002

Applicant City of McGregor

Region 9

County McLennan

( ) New Application **(X) Major Amendment**

Discharge route for 1 (one) mile from point of discharge does contain water affected by tidal?

( ) Yes **(X) No**

Receiving Water Assessment Required **( ) Yes** **(X) No**

Segment 1246 - Middle Bosque/South Bosque River

Discharge route description Onsite ditch, thence to an unnamed tributary, thence to Middle Bosque/South Bosque River in Segment 1246.

Amending to increase flow.

Outfall Coordinates 31.414149, -97.396082

Additional Comments Outfall coordinates, USGS topo map, and landowner map all appear correct.

Flow status of receiving streams: see previous review.

Standards reviewer name: Jeff Paull **Date:** 9/5/2023

IINDUSTRIAL/MUNICIPAL APPLICATIONS ROUTE SHEET

New_____

Major Amend X

Minor Amend___

Renewal X

Major Facility___

Application Reviewer ✓ *Technical Reviewer*___

Final Flow ≥ ***1MGD*** .67

DATE APPLICATION RECEIVED 8/24/2023

PERMIT NUMBER WQ0010219002

PRE PREVIEW BY STANDARDS (RWA) X **N/A**_____
Route original application of new and major amendments, discharge only. The original application must be returned to the applications team within 4 hours of receipt.

PRE PREVIEW BY GROUNDWATER _____ **N/A** X
TLAP Only: Route copy of new and major amend.

PRE TECH REVIEW REQUIRED X **N/A**_____
Route copy of new, major amendments, major facilities or final flow ≥ 1MGD for Municipal.

COASTAL ZONE DETERMINATION _____ **N/A** X
Route copy of new application or major amendment when the facility is located in the noted county

COMMENTS ARE DUE TO APPLICATIONS TEAM BY CLOSING ON _____

*PRE TECH REVIEW PERFORMED BY*_____

THE ATTACHMENT SHOULD BE PROVIDED TO THE APPLICATIONS TEAM AT THE END OF THE 5TH WORKING DAY

Coastal Zone Determination

(To Be Verified Upon Receipt Of The Application)

Permit Number WQ0010219002 **County** McLENNAN

Indicate Type of Application:

☒ **Renewal** ☐ **Minor Amendment** ☒ **Major Amendment**

Is the facility on the Coastal Zone list?

☐ YES (Coastal Zone statement will be included in the "Notice of Draft Permit") (If a major amendment - statement will be included in the "Notice of Receipt")

☒ NO (Do not include statement in any notice)

☐ **New** ☒ **Major Amendment**

Is the facility located in one of the following counties?

☐ Aransas	☐ Galveston	☐ Kleberg	☐ San Patricio
☐ Brazoria	☐ Harris	☐ Matagorda	☐ Victoria
☐ Calhoun	☐ Jackson	☐ Nueces	☐ Willacy
☐ Cameron	☐ Jefferson	☐ Orange	
☐ Chambers	☐ Kenedy	☐ Refugio	

☐ YES Send the application to Water Quality Assessment Team for Coastal Zone Determination.

☒ NO No further review needed (Do not include statement in any notice)

Water Quality Assessment Team's determination:

Is the discharge in the Coastal Zone?

☐ YES Coastal Zone statement shall be included in the Admin Complete Notice

☐ NO Do not include statement in the Admin Complete Notice

Return to Applications Team by _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 5, 2023

9489 0090 0027 6003 3318 88

Mr. Kevin Adams
City Manager
P.O. Box 192
McGregor, Texas 76657

Re: Request to Withdraw and Replace Renewal Application
Permit No. WQ0010219002 EPA ID TX0023914 (RN101609220)
City of McGregor (CN600755631)

Dear Mr. Adams:

We have received your request, dated August 24, 2023, requesting to withdraw and replace the permit application received on August 24, 2023. As of the date of this letter, we have replaced the original application with the application received on August 24, 2023. The original application will remain a record of the Commission.

If you should have any questions, please contact me at (512)239-2191.

Sincerely,

Mr. Erwin Madrid
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

cc: Mr. Joseph W. Jenkins, P.E., Senior Vice President, Walker Partners, 6504 Bridge Point Parkway, Suite 200, Austin, Texas 78730

bcc: TCEQ Region 9, Water Program Manager
Georgia Warren-Carroll, Notice Team Leader, Office of the Chief Clerk (MC-105)
Firoj Vahora, Team Leader, Municipal Permits Team, MC-148
Macy Beauchamp, TCEQ Enforcement Division, MC-219

Walker Partners
engineers | surveyors

ORIGINAL
Walker Partners 8/24/2023

TRANSMITTAL LETTER

To: Texas Commission on Environmental Quality

Attn: Applications Review and Processing Team

From: Walker Partners

Project Name: City of McGregor

Project No.: 3-00706

Re: Domestic Wastewater Permit Application

Date: 8/24/2023

Attached are the following items:

Quantity	Description	Date of Item
1	Domestic Administrative Report	8/24/2023
1	Domestic Technical Report	8/24/2023
1	Core Data Form	8/24/2023

☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply

Notes/Comments:

The City of McGregor is awaiting on the results for their chemical analysis. Once data is received from the laboratory, we will send it and the signed "Laboratory Accreditation" (Section 14. Of the Technical Report).

RECEIVED
AUG 24 2023
Water Quality Applications Team

Erwin Madrid

From: Venkata Kancharla
Sent: Wednesday, August 30, 2023 3:49 PM
To: Erwin Madrid
Subject: FW: McGregor Permit (WQ0010219002)

Email chain below.

Thanks,
Sunny

From: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Sent: Monday, August 14, 2023 9:26 AM
To: Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>
Subject: FW: McGregor Permit (WQ0010219002)

FYI

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Wednesday, August 9, 2023 5:15 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: RE: McGregor Permit (WQ0010219002)

Sounds good, Joe. And I may have been wrong about the ammonia limit needed for the current flow phase of 1.1 MGD. I think it should have been 2 mg/L instead of 1.5 mg/L. Hopefully you have records of what was communicated previously. But if you need confirmation of the limits, let me know and I can check with the modeler, Jim Michalk.

Thanks,

Gregg

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Monday, August 7, 2023 4:17 PM
To: Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: RE: McGregor Permit (WQ0010219002)

Gregg, it does help. We will proceed with the limits as you indicated. We are just going to request a final flow of 1.67 mgd.

Thanks Joe

JOSEPH W. JENKINS, P.E.
Senior Vice President

www.WalkerPartners.com
6504 Bridge Point Parkway, Suite 200
Austin, Texas 78730

W 512.382.0021
M 512.423.5003

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Monday, August 7, 2023 3:14 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: RE: McGregor Permit (WQ0010219002)

Sorry, Joe. I forgot to address the ammonia limit. The 1.5 mg/L ammonia limit that was predicted to be necessary for the 1.1 MGD and 1.67 MGD flow phases would not be rounded. Similarly, the 1.3 mg/L ammonia limit needed for the 2.5 MGD flow phase would also not be rounded. As you have probably seen, most domestic discharge permits have whole number ammonia limits (e.g., 2, 3, or 4 mg/L). But when ammonia limits are needed below 2 mg/L, they are expressed on a finer scale. Hope that helps.

Thanks,

Gregg

From: Gregg Easley
Sent: Monday, August 7, 2023 3:01 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Firoj Vahora <Firoj.Vahora@tceq.texas.gov>
Subject: RE: McGregor Permit (WQ0010219002)

Thanks for the response, Joe. Here are my responses to your questions. I'll need Firoj to help with your last question.

Should we submit the application without the chem analysis and then follow-up with the results when they become available?
I would recommend that you wait to submit the application until after you have received the chemical analyses. Might as well wait to submit a complete application, unless there's some other reason for submitting it sooner (e.g., loan processing milestone).

Do we just state the flow we would like to request for the final phase? Or do we also have the state the final limits that James modeled? Or is that something TCEQ will state regarding the water quality limits?
Yes, you need to state in the application all flow phases that are being requested, and you need to state the proposed limits for each phase. Assuming you're requesting the same flow phases that were modeled, please use those numbers for the proposed limits. In addition to the 1.1 MGD phase that the City is currently operating under, is the City going to be requesting an interim phase of 1.67 MGD and a final phase of 2.5 MGD?

Do we have to have all the unit processes listed and sized for the final phase for the application?
I'll have to defer to Firoj to answer this question.

Thanks,

Gregg

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Friday, August 4, 2023 4:51 PM
To: Gregg Easley <gregg.easley@tceq.texas.gov>

Cc: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: McGregor Permit (WQ0010219002)

Gregg, we are working on the application. The laboratories for the chemical analysis appear to be way behind. Should we submit the application without the chem analysis and then follow-up with the results when they become available? Also this will be a major amendment with renewal. Do we just state the flow we would like to request for the final phase? Or do we also have the state the final limits that James modeled? Or is that something TCEQ will state regarding the water quality limits? His model indicated the following - 5 mg/L BOD, 12 mg/L TSS, 1.5 mg/L NH3-N, and 6 mg/L DO. I was not sure if the ammonia might get rounded to 2 mg/l. I just see standard permits at 5/5/2. Finally, the City is looking at a couple of options on their activated sludge process for the BOD reduction trying to minimize costs. Do we have to have all the unit processes listed and sized for the final phase for the application?

Thanks,

Joe

JOSEPH W. JENKINS, P.E.
Senior Vice President

www.WalkerPartners.com
6504 Bridge Point Parkway, Suite 200
Austin, Texas 78730

W 512.382.0021
M 512.423.5003

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Tuesday, August 1, 2023 5:28 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Good evening, Joe. Just wanted to check in on the progress of preparing a replacement permit application for the City of McGregor. Let me know if there's anything you need from us.

Thanks,

Gregg

Gregg Easley, Manager
Water Quality Assessment Section
Water Quality Division
Texas Commission On Environmental Quality
512-239-4539

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Tuesday, May 23, 2023 5:17 PM
To: Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica

Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

We are arranging for a lab to take water quality samples for us now, and we are starting on the application. I think it will be cleanest for everyone if we just submit a new application. So we are underway.

Joe

JOSEPH W. JENKINS, P.E.
Senior Vice President

www.WalkerPartners.com
6504 Bridge Point Parkway, Suite 200
Austin, Texas 78730

W 512.382.0021
M 512.423.5003

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Tuesday, May 23, 2023 5:01 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Hi, Joe. Y'all may still be deliberating on the path forward, but just wanted to touch base to see if you could provide a status update.

Thanks,

Gregg

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Monday, May 1, 2023 6:05 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Good evening, Joe:

The City's 2018 application that we currently have is for a major amendment with renewal of their permit. With this application, the City would continue with the currently permitted flow phase of 1.1 MGD and is requesting an additional flow phase of 1.67 MGD. Due to the presence of two on-channel ponds that did not previously exist within the downstream unnamed tributary (i.e., the flow-through characteristics of the tributary have changed, but the overall

discharge route pathway and description for the permit did not change), more stringent effluent limits would be required to meet instream dissolved oxygen criteria as has been previously communicated.

To continue with the 2018 application, the City will need to ensure that the information in the application continues to be accurate (e.g., no changes in contact information, downstream landowners, etc.). Any corrections that need to be made will require the submittal of updates to the relevant pages of the application. In addition, as Firoj mentioned, a new effluent pollutant analysis will need to be provided as the analysis in the current application is approximately 5 years old. I am asking others from TCEQ on this email to chime in if there are any other details that I've missed.

If the City wants to change what's being requested in the 2018 major amendment with renewal application (e.g., add a third flow phase of 2.5 MGD), the best way to handle that is to prepare and submit a new application to replace the 2018 application. This would reset the application review process, but it would not result in a lapse of coverage of the City's existing discharge permit. That permit would remain in effect until an amended permit is issued.

So to answer your question, Joe, the application will involve a major amendment and renewal, but the specific path forward from here will depend on whether the City wants to stick with the 1.1 and 1.67 MGD flow phases in the 2018 application or go with something more. Please let us know how the City would like to proceed.

Thanks,

Gregg

Gregg Easley, Manager
Water Quality Assessment Section
Water Quality Division
Texas Commission on Environmental Quality
512-239-4539

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Monday, April 24, 2023 10:03 AM
To: Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Greg, we are beginning to put the permit application together now. I assume this will be both a renew and major amendment, right? I assume we will need to update all of the chemical analysis, right?

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners
W 512.382.0021 **M** 512.423.5003

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Friday, April 21, 2023 9:31 AM

To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Good morning, Joe:

Just following up on your previous email from last month to get a progress update on the permit application for the City of McGregor.

Thank you,

Gregg

Gregg Easley, Manager
Water Quality Assessment Section
Water Quality Division
Texas Commission on Environmental Quality
512-239-4539

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Tuesday, March 21, 2023 1:03 PM
To: Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Greg, sorry about the slow response. We are working to get a call with the City of McGregor staff. We are trying to settle on flows, but we should be able to get started on our application within the next two to three weeks.

Thanks,

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners
W 512.382.0021 **M** 512.423.5003

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Thursday, March 16, 2023 4:47 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; James Michalk <james.michalk@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica

Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Good afternoon, Joe. Don't think I saw a response to my check-in email earlier this month. Please let us know the City's plans for the current permit application at your earliest convenience.

Thank you,

Gregg

From: Gregg Easley
Sent: Thursday, March 2, 2023 10:08 AM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: Peter Schaefer <Peter.Schaefer@tceq.texas.gov>; James Michalk <James.Michalk@tceq.texas.gov>; Firoj Vahora <Firoj.Vahora@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Good morning, Joe:

Just wanted to check in on the status of the City's plans regarding their permit amendment application. Let us know if you still need any additional information from us.

Thank you,

Gregg

Gregg Easley, Manager
Water Quality Assessment Section
Water Quality Division
Texas Commission on Environmental Quality
512-239-4539

From: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Sent: Friday, January 20, 2023 2:11 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>; James Michalk <james.michalk@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Venkata Kancharla <Venkata.Kancharla@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)
Importance: High

Hello Jim:

Thanks for your e-mail. No, we do not have any preference on technology that you guys may propose as long as it's meets 217 criteria, we should not have any issue. Please make a note that based on the new effluent sets proposed by Jim, if the footprint of the treatment process changes and it effects the buffer zone, please make sure you guys update our record plus the information at the public viewing place.

According to NORI (attached), the city has applied for major amendment to increase flow up to 1.67 MGD. Are you guys still contemplating amending the permitted flow to 2.5 MGD? If this the case, we may have consider withdraw and resubmit amendment application so we can have clean slate.

I am adding Erwin Madrid, Team Leader, Application Review & Processing Team. He can help, if we have to deal with withdraw and resubmit amendment application but not withdrawing the application because the city may lose the permit, if the city withdraw the pending application. The current permit has already expired (see attach copy of the permit) but the life of the permit is administratively to continue because the amendment application came in prior to expiration date of their current permit.

If the city wishes to continue with the pending application, please let us know.

Thanks,

Firoj Vahora, Team Leader
Municipal Permits Team (MC 148)
Wastewater Permitting Section
Water Quality Division, TCEQ
email: firoj.vahora@tceq.texas.gov
phone: 512-239-4540

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Friday, January 20, 2023 1:45 PM
To: James Michalk <james.michalk@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Jim, thanks for making that model run. This gives us a good picture of what we need to plan for. Firoj, did you team have nay comments about or treatment options? We are ready to start putting together our documents for the permit application if our approach seems acceptable.

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners
W 512.382.0021 **M** 512.423.5003

From: James Michalk <james.michalk@tceq.texas.gov>
Sent: Friday, January 20, 2023 1:41 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>; Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>; Amancio Gutierrez <Amancio.Gutierrez@tceq.texas.gov>
Subject: [EXTERNAL] RE: McGregor Permit (WQ0010219002)

Good afternoon Joe,

I have completed the preliminary dissolved oxygen (DO) modeling for a potential future expansion of the City of McGregor discharge to 2.5 MGD using the current discharge route, per your December 8th email. The limits currently being recommended for the proposed 1.67 MGD flow phase (5 mg/L $CBOD_5$, 1.5 mg/L NH_3-N, and 6 mg/L minimum effluent DO) are not predicted to be adequate at 2.5 MGD, but a slightly more stringent effluent set of **5 mg/L $CBOD_5$, 1.3 mg/L NH_3-N, and 6 mg/L minimum effluent DO** is.

As with all preliminary analyses, please keep in mind that these results and recommendations are preliminary and could potentially change if additional information is received or if other changes occur in the watershed that could impact model results.

Please let me know if you have any additional questions. Thank you again.

Jim Michalk
Water Quality Assessment Team

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Thursday, December 8, 2022 10:41 AM
To: Gregg Easley <gregg.easley@tceq.texas.gov>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; kevans@mcgregor-texas.com; Firoj Vahora <firoj.vahora@tceq.texas.gov>; Jessica Johnson-Miller <JJohnson-Miller@walkerpartners.com>; Kyle Dunlop <kdunlop@walkerpartners.com>
Subject: McGregor Permit (WQ0010219002)

All, Walker Partners has conducted an analysis to determine options for updating the City of McGregor's TPDES Permit. The City is requesting that the current treatment capacity annual average flow of effluent of 1.1 million gallons per day (MGD) be increased to 1.67-MGD to handle potential flows from industrial and residential growth. It was previously determined by the Texas Commission of Environmental Quality (TCEQ) that the treatment plant could operate at neither the same treatment level or the increased capacity of 1.67-MGD without increasing the water quality of the effluent or eliminating the direct discharge of the effluent into the current stream with adjacent downstream ponds.

To meet compliance requirements, the City has selected a two-phase approach: Phase 1 will include installation of disc filters at the wastewater treatment plant (WWTP) to meet the more stringent effluent water quality limits, and Phase 2 will include expanding the WWTP. The Phase 1 filters will improve the discharge water quality to meet more stringent treatment limits as modeled: 5 mg/L BOD, 12 mg/L TSS, 1.5 mg/L NH3-N, and 6 mg/L DO, and the Phase 2 expansion will increase the capacity to 1.67-MGD. Based on the TCEQ's model, this planned treatment would meet the required treatment limits for an increased capacity of 1.67-MGD while allowing downstream conveyance to remain as is.

We have attached our technical memorandum for your review. If you concur with our approach, we will re-submit our permit renewal application with the planned improvements. We will request that the Phase 1 filters not be required to be in operation until year 3 of the new 5-year permit.

We would also like to request that the model be to run to check if the 5/12/1.5/6 limits are still viable if our annual average flow increased to 2.5-MGD? This will not hold up are renewal application, but the City would like to have an indication of what impact a request for additional flow capacity from industry might have.

Let me know if you have any questions.

Thanks,

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners
W 512.382.0021 **M** 512.423.5003

From: Gregg Easley <gregg.easley@tceq.texas.gov>
Sent: Tuesday, December 6, 2022 12:06 PM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; Jed Walker <gwalker@walkerpartners.com>; kevans@mcgregor-texas.com; Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: [EXTERNAL] RE: McGregor Permit (WQ0010219002

Good afternoon, Joe:

I just wanted to check in with you to see if there are any updates on the wastewater options under consideration.

Thank you,

Gregg

Gregg Easley, Manager
Water Quality Assessment Section
Water Quality Division
Texas Commission On Environmental Quality
512-239-4539

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Tuesday, October 25, 2022 8:36 AM
To: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Gordon Cooper <gordon.cooper@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; Jed Walker <gwalker@walkerpartners.com>; kevans@mcgregor-texas.com
Subject: McGregor Permit (WQ0010219002

Firoj, we are wrapping up our evaluation this week and will be submitting to the City of McGregor for review and direction. We evaluated four main alternatives for their wastewater plant discharge. All the options included expanding the plant another 0.5 mgd to 1.67 mgd. We evaluated a TLAP – land application option, an option to make the downstream ponds off-channel ponds, an option to re-route the discharge to a further downstream area to minimize the impact of any ponds, and a final option of treating the wastewater to the more stringent levels that would allow discharge at the present location. Once the City gives us direction on which approach they want to take, we will update our permit application and get it submitted.

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners
W 512.382.0021 **M** 512.423.5003

From: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Sent: Tuesday, October 25, 2022 8:25 AM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Gordon Cooper <gordon.cooper@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; Jed Walker <gwalker@walkerpartners.com>; kevans@mcgregor-texas.com; Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002
Importance: High

Good Morning Joe:

Just following up on our last communication. How are we doing? Please let us know.

Thanks,

Firoj Vahora, Team Leader
Municipal Permits Team (MC 148)
Wastewater Permitting Section
Water Quality Division, TCEQ
email: firoj.vahora@tceq.texas.gov
phone: 512-239-4540
☐Please consider whether it is necessary to print this e-mail

How is our Customer Service? Fill out our online customer satisfactory survey at www.tceq.texas.gov/customersurvey

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Friday, September 16, 2022 9:19 AM
To: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Gordon Cooper <gordon.cooper@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; Jed Walker <gwalker@walkerpartners.com>; kevans@mcgregor-texas.com
Subject: RE: [EXTERNAL] RE: McGregor Permit (WQ0010219002

Firoj, we did not have any electrical conductivity data for estimating our land application rate, so we are trying to get that done next weeks. We are also updating our cost on the plant expansion unit processes and the outfall stream pond bypass since it has been two years since we last completed this estimate. We are awaiting some cost back from treatment vendors. We are targeting on getting a technical memorandum to TCEQ within the next two or three weeks.

Thanks,

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners
W 512.382.0021 **M** 512.423.5003

From: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Sent: Thursday, September 15, 2022 11:50 AM
To: Joseph Jenkins <jjenkins@walkerpartners.com>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Gordon Cooper <gordon.cooper@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; Jed Walker <gwalker@walkerpartners.com>; kevans@mcgregor-texas.com; Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: [EXTERNAL] RE: McGregor Permit (WQ0010219002
Importance: High

Good Morning Joe:

Would you please let us know, where are we on this matter. I need to provide updates to our management.

Thanks,

Firoj Vahora, Team Leader

Municipal Permits Team (MC 148)
Wastewater Permitting Section
Water Quality Division, TCEQ
email: firoj.vahora@tceq.texas.gov
phone: 512-239-4540

From: Joseph Jenkins <jjenkins@walkerpartners.com>
Sent: Sunday, August 14, 2022 4:08 PM
To: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Cc: James Michalk <james.michalk@tceq.texas.gov>; Gordon Cooper <gordon.cooper@tceq.texas.gov>; Gregg Easley <gregg.easley@tceq.texas.gov>; Peter Schaefer <peter.schaefer@tceq.texas.gov>; Jacob Hinson <jhinson@walkerpartners.com>; Jed Walker <gwalker@walkerpartners.com>; kevans@mcgregor-texas.com
Subject: McGregor Permit (WQ0010219002

Firoj and team,

Walker Partners met with the City McGregor and Bluebonnet Water Supply Corporation on Friday August 5th to discuss The City of McGregor's water supply and wastewater treatment plant capacity and discharge permit requirements. Since conducting the receiving stream water quality evaluation, the growth and water and wastewater service request form various industries has changed considerably.

The water supply is important because if the City of McGregor has a limit on the amount of potable water it can supply to these industrial customers, this in turn limits the amount of wastewater treatment capacity as well.

As a result of our discussions, our team will be evaluating the following over the next 3 to 4 weeks:

1. **Wastewater Treatment Options**
    a. Simple process upgrades and additions to treat all the wastewater to Type 1 reuse standards to supply these new industries reuse water that can be used for cooling water and process water instead of potable water. If this approach is taken the effluent will meet the more stringent effluents limit for the higher flow as indicated by TCEQ's stream water quality modeling.

    b. No discharge – land application permit instead of a discharge permit.

    c. Modifying the existing discharge stream so that the downstream ponds are off-channel ponds, which may allow the less stringent limits depending on the flow requested.

    d. Pumping the effluent to a different receiving stream.

2. **Water Supply Options**
    a. Utilize City of McGregor's remaining water right from Lake Belton.

    b. Approach other members of the Bluebonnet Water Supply Corporation to determine if they would be willing to sell any of their water rights to McGregor.

    c. Determine if any addition Trinity Aquifer well water is available.

Thus, our team is asking TCEQ to delay any actions related their wastewater discharge permit for one more month until these evaluations can be completed. At that time, our team will work with TCEQ to modify their permit application to reflect the course of action the City has decided to take in the near term while trying to look ahead to what their needs will be over the next 5 to 7 years.

TCEQ has been very patient with our team, and your assistance has been very much appreciated. Let us know if you have any questions.

Thanks,

Joe

JOSEPH W. JENKINS, P.E.
Senior Client Manager

Walker Partners

W 512.382.0021 **M** 512.423.5003

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AUGUST 2023

THE CITY OF MCGREGOR TEXAS

SOUTH MCGREGOR WWTP

DOMESTIC WASTEWATER MAJOR AMENDMENT PERMIT APPLICATION

PERMIT NO. WQ0010219002

PREPARED FOR:
TEXAS COMMISION ON ENVIRONMENTAL QUALITY

Walker Partners
engineers ★ surveyors

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: City of McGregor

PERMIT NUMBER: WQ0010219002

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

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

RECEIVED
AUG 24 2023
Water Quality Applications Team

For TCEQ Use Only

Segment Number 1246 County McLennan
Expiration Date _____ Region 9
Permit Number WQ0010219002

DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT

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 ☐

RECEIVED
AUG 24 2023
Water Quality Applications Team

Payment Information:

Mailed — Check/Money Order Number:

Check/Money Order Amount: $2,050

Name Printed on Check: City of McGregor

EPAY — Voucher Number:

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 29)

☐ New TPDES
☒ Major Amendment *with* Renewal
☐ Major Amendment *without* Renewal
☐ Renewal without changes
☐ New TLAP
☐ Minor Amendment *with* Renewal
☐ Minor Amendment *without* Renewal
☐ Minor Modification of permit

For amendments or modifications, describe the proposed changes: Based on the foreseeable growth in the McGregor Industrial Park, we are requesting to increase our annual average permitted flow from 1.10 MGD to 1.67 MGD.

For existing permits:

Permit Number: WQ0010219002

EPA I.D. (TPDES only): TX0023914

Expiration Date: Dec 1. 2018

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 McGregor

(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: 600755631

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: Kevin Evans

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

Title: 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:

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: 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: Joseph W. Jenkins

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

Title: Sr. Vice President

Organization Name: Walker Partners

Mailing Address: 6504 Bridge Point Parkway, Suite 200

City, State, Zip Code: Austin TX, 78730

Phone No.: 512-382-0021 Ext.: Fax No.:

E-mail Address: jjenkins@walkerpartners.com

Check one or both: ☐ Administrative Contact ☒ Technical Contact

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

First and Last Name: Kevin Evans

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

Title: City Manager

Organization Name: City of McGregor

Mailing Address: P.O. Box 192

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-840-2806 Ext.: Fax No.:

E-mail Address: kevans@mcgregor-texas.com

Check one or both: ☒ Administrative Contact ☐ 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: Kevin Evans

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

Title: City Manager

Organization Name: City of McGregor

Mailing Address: P.O Box 192

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-840-2806 Ext.: Fax No.:

E-mail Address: kevans@mcgregor-texas.com

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

First and Last Name: Robert Meyers

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

Title: Plant Supervisor

Organization Name: South McGregor Wastewater Treatment Plant

Mailing Address: 2829 South Main St

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-379-0561 Ext.: Fax No.:

E-mail Address: rmeyers@mcgregor-texas.com

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): Mr.

First and Last Name: Kevin Evans

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

Title: City Manager

Organization Name: City of McGregor

Mailing Address: P.O. Box 192

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-840-2806 Ext.: Fax No.:

E-mail Address: kevans@mcgregor-texas.com

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: Robert Meyers

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

Title: Plant Supervisor

Organization Name: South McGregor Wastewater Treatment Plant

Mailing Address: 2829 South Main St

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-379-0561 Ext.: Fax No.:

E-mail Address: rmeyers@mcgregor-texas.com

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): Ms.

First and Last Name: Angela Sloan

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

Title: City Secretary

Organization Name: City of McGregor

Mailing Address: P.O. Box 192

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-840-2806 Ext.: Fax No.:

E-mail Address: asloan@mcgregor-texas.com

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

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

- ☒ E-mail Address
- ☐ Fax
- ☐ Regular Mail

C. Contact person to be listed in the Notices

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

First and Last Name: Robert Meyers

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

Title: Plant Supervisor

Organization Name: South McGregor Wastewater Treatment Plant

Phone No.: 254-379-0561 Ext.:

E-mail: rmeyers@mcgregor-texas.com

D. Public Viewing Information

If the facility or outfall is located in more than one county, a public viewing place for each county must be provided.

Public building name: City Hall

Location within the building:

Physical Address of Building: 302 S Madison St

City: McGregor County: McLennan

Contact Name:

Phone No.: Ext.:

E. Bilingual Notice Requirements:

This information **is required** for **new, major amendment, minor amendment or minor modification, and renewal applications**.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

   ☐ Yes ☒ No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

   ☐ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

☐ Yes ☐ No

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

   ☐ Yes ☐ No

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program?

F. Public Involvement Plan Form

Complete the Public Involvement Plan Form (TCEQ Form 20960) for each application for a **new permit or major amendment to a permit** and include as an attachment.

Attachment:

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**105769541

Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.

B. Name of project or site (the name known by the community where located):

McGregor South Wastewater Treatment Plant

C. Owner of treatment facility: City of McGregor

Ownership of Facility: ☒ Public ☐ Private ☐ Both ☐ Federal

D. Owner of land where treatment facility is or will be:

Prefix (Mr., Ms., Miss):

First and Last Name: City of McGregor

Mailing Address: PO Box 192

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-840-2806 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:

E. Owner of effluent disposal site:

Prefix (Mr., Ms., Miss):

First and Last Name:

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:

F. Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

Prefix (Mr., Ms., Miss):

First and Last Name:

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:

Section 10. TPDES Discharge Information (Instructions Page 34)

A. 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:

B. 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:

City nearest the outfall(s): McGregor

County in which the outfalls(s) is/are located: McLennan

Outfall Latitude: 31.4142 Longitude: 97.3958

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:

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.

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:

N/A

B. City nearest the disposal site:

C. County in which the disposal site is located:

D. Disposal Site Latitude: Longitude:

E. For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site:

F. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

Section 12. Miscellaneous Information (Instructions Page 37)

A. Is the facility located on or does the treated effluent cross American Indian Land?

☐ Yes ☒ No

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?

☐ Yes ☐ No ☒ Not Applicable

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.

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:

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: 10219002

Applicant: City of McGregor

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): KEVIN P. EVANS

Signatory title: CITY MANAGER

Signature: Kevin P. Evans Date: 8·14·23

(Use blue ink)

Subscribed and Sworn to before me by the said Kevin P. Evans

on this 14 day of Aug, 2023.

My commission expires on the 14 day of June, 2025

Notary Public

ROBIN WYLIE CARDENAS
My Notary ID # 129427762
Expires June 14, 2025
[SEAL]

McLennan
County, Texas

Section 15. Plain Language Summary (Instructions Page 40)

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.
City of McGregor (CN: 600755631) operates McGregor South Wastewater Treatment Plant RN105769541. a facility which uses bar screening, oxidation ditch, final clarification, and chlorine disinfection to treat their feed . The facility is located at 2829 South Main St, in McGregor, McLennan County, Texas 76657.

Expansion and upgrades to the facility to meet new effluent limits and future capacity expansion This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain elevated levels of nitrogen and phosphorus. Industrial waste which originates from the growing local industry will be treated by *passing through bar screenings to remove unwanted waste, then move into an oxidation ditch to promote the decrease in biological oxygen demand (BOD). Remaining solids are then separated via final clarification, then the water is disinfected using chlorine injection into serpentine basins.*

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS TPDES o TLAP

AGUAS RESIDUALES DOMÉSTICAS

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso.

1. Introduzca el nombre del solicitante aquí. (2. Introduzca el número de cliente aquí (es decir, CN6 #########).) 3. Elija del menú desplegable. 4. Introduzca el nombre de la instalación aquí. 5. Introduzca el número de entidad regulada aquí (es decir, RN1 #########). 6. Elija del menú desplegable. 7. Introduzca la descripción de la instalación aquí. . La instalación 8. Elija del menú desplegable. ubicado 9. Introduzca la ubicación aquí. , en 10. Introduzca el nombre de la ciudad aquí. , Condado de 11. Introduzca el nombre del condado aquí. , Texas 12. Introduzca el código postal aquí. . 13. Introduzca el resumen de la solicitud de solicitud aquí. <<*Para las aplicaciones de TLAP incluya la siguiente oración, de lo contrario, elimine:*>> Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan14. Liste todos los contaminantes esperados aquí. . 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable. tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.

DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 41)

A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following 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: if 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

B. ☒ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

C. Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive ☒ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: McLennan CAD

E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☒ No

If **yes**, provide the location and foreseeable impacts and effects this application has on the land(s):

Section 2. Original Photographs (Instructions Page 44)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

- ☒ At 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.
- ☐ At least one photograph of the existing/proposed effluent disposal site
- ☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 44)

A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using 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.

B. Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

- ☒ Ownership
- ☐ Restrictive easement
- ☐ Nuisance odor control
- ☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable 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: ____Renewal _X_ Major Amendment ____Minor Amendment ____New

County: McLennan Segment Number: 1246

Admin Complete Date: 10/18/2023

Agency Receiving SPIF:

_X_ Texas Historical Commission _X_ U.S. Fish and Wildlife

_X_ Texas Parks and Wildlife Department _X_ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: City of McGregor

   Permit No. WQ00 10219002 EPA ID No. TX 0023914

   Address of the project (or a location description that includes street/highway, city/vicinity, and county):

   2829 South Main St McGregor, TX 76657 McLennan County

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: Robert Meyers

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

Title: Plant Supervisor

Mailing Address: 2829 South Main

City, State, Zip Code: McGregor, TX 76657

Phone No.: 254-379-0561 Ext.: Fax No.:

E-mail Address: rmeyers@mcgregor-texas.com

2. List the county in which the facility is located: McLennan
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

4. 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.

The effluent discharges to an unnamed tributary; then to Middle Bosque/ South Bosque River in Segment No. 1246 of the Brazos River Basin.

5. 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

☐ Disturbance of vegetation or wetlands

6. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

The proposed construction will remain within and along the property boundaries. The disturbed area includes an overall expansion of the headworks, an additional oxidation ditch, expansion of the chlorine contact basin, and the addition of filtration. The area does not have a history of caves or other karst features.

7. Describe existing disturbances, vegetation, and land use:

The existing site is to be used for the treatment of wastewater for the City of McGregor. The vegetation on the property is short grass with trees along the property boundary. A detention pond in the City of McGregor's adjacent lot falls within the 150 ft buffer zone.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

8. List construction dates of all buildings and structures on the property:

The original facility was constructed in 1988.

9. Provide a brief history of the property, and name of the architect/builder, if known.

The original facilities lead engineering company was Brannon signed the first phase of construction in 1987.

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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:

CN:

For Commission Use Only:
Customer Number:
Regulated Entity Number:
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) ☒ Yes
(Required for all applications types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)

Correct and Current Industrial Wastewater Permit Application Forms ☒ Yes
(TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)

Water Quality Permit Payment Submittal Form (Page 19) ☒ Yes
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)

7.5 Minute USGS Quadrangle Topographic Map Attached ☒ Yes
(Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)

Current/Non-Expired, Executed Lease Agreement or Easement Attached ☒ N/A ☐ Yes

Landowners Map ☐ N/A ☒ Yes
(See instructions for landowner requirements)

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 ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Landowners Labels or USB Drive attached ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Original signature per 30 TAC § 305.44 – Blue Ink Preferred ☒ Yes
(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)

DOMESTIC WASTEWATER PERMIT TECHNICAL REPORT

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications

Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): 1.1

2-Hr Peak Flow (MGD): 4.98

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

B. Interim II Phase

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD):

Estimated construction start date:

Estimated waste disposal start date:

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C. Final Phase

Design Flow (MGD): 1.67

2-Hr Peak Flow (MGD): 5.83

Estimated construction start date: TBD

Estimated waste disposal start date: TBD

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AUG 24
Water Quality Application

D. Current operating phase: Phase I

Provide the startup date of the facility: 1988

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

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 in the permit, a description of *each phase* must be provided.** Process description:

Influent enters the plant and then passes through a manual bar screen. Next, the feed enters a single oxidation ditch with sufficient mixers to aeration for the biological process. Remaining solids are separated via clarification afterwards, and then chlorine is injected into the pipeline just prior to the serpentine basins. Sulfur dioxide is used after the water has been disinfected to dechlorinate the feed before it is discharged. The sludge from the clarifiers is returned to the splitter box prior to the oxidation ditch; or sludge is directed to the sludge dewatering unit or the sand drying beds, then returned to the headworks or send to landfill.

Port or pipe diameter at the discharge point, in inches: 18 inches

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)
Bar Screen	1	3'x3'x3'
Huber Step Screen	1	3'x3'x3'
Oxidation Ditch Volume	2	1,733,228 gallons
Oxidation Ditch Aeration	5	5@20 HP/ea
Clarifiers	2	@70' diameter
RAS Pumps	3	3 @ 535 gpm
WAS Pumps	2	2 @ 30-75 gpm
Chlorine Contact Basin	2	161,807 gallons
Dechlorination		97.5 lbs/day

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Sludge Dewatering		140 gpm

C. Process flow diagrams

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

Attachment: K

Section 3. Site Drawing (Instructions Page 52)

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: L

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

The McGregor WWTP servers the city of McGregor which has a population of 5,857 (2023). With a growth rate of ~3%, and a large industrial zone, the WWTP serves the entirety of the city.

Section 4. Unbuilt Phases (Instructions Page 52)

Is the application for a renewal of a permit that contains an unbuilt phase or phases?

Yes ☐ 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.

Section 5. Closure Plans (Instructions Page 53)

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.

Section 6. Permit Specific Requirements (Instructions Page 53)

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 ☒

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

Provide information, including dates, on any actions taken to meet a requirement or provision pertaining to the submission of a summary transmittal letter. Provide a copy of an approval letter from the TCEQ, if applicable.

Plans for final phase applied for have not been submitted for approval.

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.

City owns the required buffer zones.

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* 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 *Other Requirement* or *Special Provision.*

No actions were necessary to comply with the "other requirements" section of the existing permit.

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?

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.

3. 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 512-239-0000. 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.

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 512-239-0000.

Describe how the decant and grease are treated and disposed of after grit separation.

E. Stormwater management

1. 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 BU30 or TXRNE

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:

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.

5. Zero stormwater discharge

Do you intend to have no discharge of stormwater via use of evaporation or other means?

Yes ☐ No ☒

If yes, explain below then skip to Subsection F. Other Wastes Received.

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.

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.

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?
Yes ☐ No ☒

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

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

1. Acceptance of sludge from other WWTPs

Does the facility accept or will it accept sludge from other treatment plants at the facility site?
Yes ☐ No ☒

If yes, attach sewage sludge solids management plan. See Example 5 of the instructions.

In addition, provide the date that the plant started accepting sludge 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.

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 a the date that the plant started accepting septic waste, 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.

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 the facility accepting or will it 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.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

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). W***ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3).

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

Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l	TBD				
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Dissolved Oxygen*, mg/l					
Chlorine Residual, mg/l					
E.coli (CFU/100ml) freshwater					

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Entercocci (CFU/100ml) saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity, µmohs/cm, †					
Oil & Grease, mg/l					
Alkalinity ($CaCO_3$)*, mg/l					

*TPDES permits only

†TLAP 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 60)

Facility Operator Name: Robert Meyers

Facility Operator's License Classification and Level: B

Facility Operator's License Number: WW0062376

Section 9. Sewage Sludge Management and Disposal (Instructions

Page 60)

A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

- ☒ Permitted landfill
- ☐ Permitted or Registered land application site for beneficial use
- ☐ Land application for beneficial use authorized in the wastewater permit
- ☐ Permitted sludge processing facility
- ☐ Marketing and distribution as authorized in the wastewater permit
- ☐ Composting as authorized in the wastewater permit
- ☐ Permitted surface disposal site (sludge monofill)
- ☐ Surface disposal site (sludge monofill) authorized in the wastewater permit
- ☐ Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.
- ☐ Other:

B. Sludge disposal site

Disposal site name: Turkey Creek Landfill

TCEQ permit or registration number: 1417C

County where disposal site is located: Alvarado TX

C. Sludge transportation method

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

Name of the hauler: Waste Connection Lone Star-Waco

Hauler registration number: 25750

Sludge is transported as a:

Liquid ☐ semi-liquid ☐ semi-solid ☐ solid ☒

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

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	Yes ☐	No ☒
Marketing and Distribution of sludge	Yes ☐	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 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

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:

- USDA Natural Resources Conservation Service Soil Map:

  Attachment:

- Federal Emergency Management Map:

  Attachment:

- Site map:

  Attachment:

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:

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:

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:

Total Kjeldahl Nitrogen, mg/kg:

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

Phosphorus, mg/kg:

Potassium, mg/kg:

pH, standard units:

Ammonia Nitrogen mg/kg:

Arsenic:

Cadmium:

Chromium:

Copper:

Lead:

Mercury:

Molybdenum:

Nickel:

Selenium:

Zinc:

Total PCBs:

Provide the following information:

Volume and frequency of sludge to the lagoon(s):

Total dry tons stored in the lagoons(s) per 365-day period:

Total dry tons stored in the lagoons(s) over the life of the unit:

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.

D. Site development plan

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

Attach the following documents to the application.

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

  Attachment:
- Copy of the closure plan

  Attachment:
- Copy of deed recordation for the site

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

  Attachment:
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment:
- Procedures to prevent the occurrence of nuisance conditions

  Attachment:

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:

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

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:

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 implementation schedule, and the current status:

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

A. RCRA hazardous wastes

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

Yes ☐ No ☒

B. Remediation activity wastewater

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:

Section 14. Laboratory Accreditation (Instructions Page 64)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, 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:
  - periodically inspected by the TCEQ; or
  - located in another state and is accredited or inspected by that state; or
  - 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:

Title:

Signature: _____

Date: _____

DOMESTIC TECHNICAL REPORT 1.1

The following is required for new and amendment applications

Section 1. Justification for Permit (Instructions Page 66)

A. Justification of permit need

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.

The current standing permit had expired in December of 2019 and TCEQ has been waiting for the submission of an updated amendment to this permit. This WWTP serves the McGregor Industrial Park where many companies would like to move to. Many of these companies require at least 1 MGD of wastewater treatment capacity to be available within 12 months. In order to meet this need permitting of the required WWTP must be complete.

B. Regionalization of facilities

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

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:

If yes, attach correspondence from the city.

Attachment:

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:

2. Utility CCN areas

Is any portion of the proposed service area located inside another utility's CCN area?

Yes ☐ No ☒

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:

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?

Yes ☐ No ☒

If yes, attach a list of these facilities that includes the permittee's name and permit number, and an area map showing the location of these facilities.

Attachment:

If yes, attach copies of your certified letters to these facilities **and** their response letters concerning connection with their system.

Attachment:

Does a permitted domestic wastewater treatment facility or a collection system located within three (3) miles of the proposed facility currently have the capacity to accept or is willing to expand to accept the volume of wastewater proposed in this application?

Yes ☐ No ☒

If yes, attach an analysis of expenditures required to connect to a permitted wastewater treatment facility or collection system located within 3 miles versus the cost of the proposed facility or expansion.

Attachment:

Section 2. Organic Loading (Instructions Page 67)

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): Phase I 1.1 MGD (Currently permitted) Phase II 1.67 MGD

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 250 mg/l

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): Phase I 1834.8 lbs/day Phase II 3442 lbs/day

Provide the source of the average organic strength or BOD_5 concentration.

Assumed from TCEQ Table.

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 BOD_5 Concentration (mg/l)
Municipality	1.1 MGD/ 1.67 MGD	200 mg/l / 250 mg/l
Subdivision		
Trailer park - transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		

Source	Total Average Flow (MGD)	Influent BOD_5 Concentration (mg/l)
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources	1.1 MGD / 1.67 MGD	
AVERAGE BOD_5 from all sources		200 mg/l / 250 mg/l

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 68)

A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 10 mg/l

Total Suspended Solids, mg/l: 15 mg/l

Ammonia Nitrogen, mg/l: 3 mg/l

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4 mg/l

Other:

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l:

Ammonia Nitrogen, mg/l:

Total Phosphorus, mg/l:

Dissolved Oxygen, mg/l:

Other:

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 12 mg/l

Ammonia Nitrogen, mg/l: 1.5 mg/l

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 6 mg/l

Other:

D. Disinfection Method

Identify the proposed method of disinfection.

☐ Chlorine: 1 mg/l mg/l after 20 minutes detention time at peak flow

Dechlorination process: S02

☐ Ultraviolet Light: seconds contact time at peak flow

☐ Other:

Section 4. Design Calculations (Instructions Page 68)

Attach design calculations and plant features for each proposed phase. Example 4 of the instructions includes sample design calculations and plant features.

Attachment: N

Section 5. Facility Site (Instructions Page 68)

A. 100-year floodplain

Will the proposed facilities be located above 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.

Provide the source(s) used to determine 100-year frequency flood plain.

FEMA FIRM Map Number 48309C0495 Panel 0495C

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:

If no, provide the approximate date you anticipate submitting your application to the Corps:

B. Wind rose

Attach a wind rose. **Attachment**: P

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 69)

A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use 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)

Attachment:

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 a completed DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT (TCEQ Form No. 10056).

Attachment:

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 69)

Attach a solids management plan to the application.

Attachment: Q

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 TECHNICAL REPORT WORKSHEET 2.0

RECEIVING WATERS

The following is required for all TPDES permit applications

Section 1. Domestic Drinking Water Supply (Instructions Page 73)

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 yes, provide the following:
Owner of the drinking water supply:

Distance and direction to the intake:

Attach a USGS map that identifies the location of the intake.

Attachment:

Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)

Does the facility discharge into tidally affected waters?

Yes ☐ No ☒

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:

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).

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).

Section 3. Classified Segments (Instructions Page 73)

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 75)

Name of the immediate receiving waters:

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres:

Average depth of the entire water body, in feet:

Average depth of water body within a 500-foot radius of discharge point, in feet:

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify:

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:

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

Middle Bosque/ South Bosque River

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

Yes ☒ No ☐

If yes, discuss how.

There are 2 man-made ponds located downstream (1.05 miles) from the discharge area.

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

During dry seasons the water surface elevation decreases but never drains due to the feed it receives for the WWTP. The stream was clear with slow downstream motion. The water level was about 0.5 feet deep with varying width. Please see Original Photos attachment F.

Date and time of observation: October 8, 2018 at 11:30am

Was the water body influenced by stormwater runoff during observations?

Yes ☐ No ☒

Section 5. General Characteristics of the Waterbody (Instructions Page 74)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

- ☐ Oil field activities
- ☐ Urban runoff
- ☐ Upstream discharges
- ☒ Agricultural runoff
- ☐ Septic tanks
- ☐ Other(s), specify

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☒ Livestock watering
- ☐ Contact recreation
- ☒ Irrigation withdrawal
- ☐ Non-contact recreation
- ☐ Fishing
- ☐ Navigation

☐ Domestic water supply ☐ Industrial water supply

☐ Park activities ☐ Other(s), specify

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 WORKSHEET 4.0

POLLUTANT ANALYSES 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 for minor amendments without renewal

Section 1. Toxic Pollutants (Instructions Page 87)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected:

Table 4.0(1) - Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) (*1)				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Cyanide (*2)				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) (*3)				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
Zinc				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:

Table 4.0(2)A – Metals, Cyanide, Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) (*1)				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5
Cyanide (*2)				10
Phenols, Total				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				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane [Bromodichloromethane]				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
1,2-Trans-Dichloroethylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				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				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				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				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

* 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.

B. 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.

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:

TABLE 4.0(2)F - DIOXIN/FURAN COMPOUNDS

Compound	Toxic Equivalency 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	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	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

DOMESTIC WORKSHEET 5.0

TOXICITY TESTING REQUIREMENTS

The following is required for facilities with a currently-operating design flow greater than or equal to 1.0 MGD, with an EPA-approved pretreatment program (or those that are required to have one under 40 CFR Part 403), or are required by the TCEQ to perform Whole Effluent Toxicity testing. This worksheet is not required for minor amendments without renewal.

Section 1. Required Tests (Instructions Page 97)

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: 1

48-hour Acute:

Section 2. Toxicity Reduction Evaluations (TREs)

Has this facility completed a TRE in the past four and a half years? Or is the facility currently performing a TRE?

Yes ☐ No ☒

If yes, describe the progress to date, if applicable, in identifying and confirming the toxicant.

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
4.25.2023 - 5.3.2023	Ceriodaphnia dubia	94%	Not Calculatable
4.25.2023 - 5.3.2023	Pimephales promelas	94%	Not Calculatable

DOMESTIC WORKSHEET 6.0

INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

Section 1. All POTWs (Instructions Page 99)

A. Industrial users

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: 0

Average Daily Flows, in MGD:

Significant IUs – non-categorical:

Number of IUs: 2

Average Daily Flows, in MGD: 0.01

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD:

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.

C. Treatment plant pass through

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.

D. 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 ☒ JA 1/4/23

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.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

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.

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment 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 to TCEQ, including the purpose of the modification.

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. 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.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

A. General information

Company Name: Behlen Manufacturing

SIC Code: 3499

Telephone number: 254-840-3224 Fax number:

Contact name: Kevin Foss

Address: 1200 E McGregor Dr.

City, State, and Zip Code: McGregor, Texas 76657

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).

Build gates, metal tanks, and feeders.

C. Product and service information

Provide a description of the principal product(s) or services performed.

Building products used primarily in agriculture

D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day:

Discharge Type: ☐ Continuous ☐ Batch ☒ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: 50 GPD

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

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:

Category:
Subcategories:

Category:
Subcategories:

Category:
Subcategories:

Category:
Subcategories:

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.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

G. General information

Company Name: Space Exploration

SIC Code: 8744

Telephone number: 210-725-3357 Fax number:

Contact name: Carla Garcia

Address: 1 Rocket Road

City, State, and Zip Code: McGregor, Texas 76657

H. 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).

Space Exploration contributes non-process domestic waste

I. Product and service information

Provide a description of the principal product(s) or services performed.

Building and testing of space rockets

J. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: 0

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: 3000

Discharge Type: ☐ Continuous ☐ Batch ☒ Intermittent

K. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

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:

Category:
Subcategories:

Category:
Subcategories:

Category:
Subcategories:

Category:
Subcategories:

L. 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.

SOUTH MCGREGOR WWTP DISCHARGE PERMIT APPLICATION ATTACHMENTS

Attachments Table of Contents

Attachment J- Treatment Unit Dimensions

Reference Technical Report 1.0 Section 2, Page 2

Attachment K- Process Flow Diagrams

Reference Technical Report 1.0 Section 2, Page 3

Attachment L- Site Drawing

Reference Technical Report 1.0 Section 3, Page 3

Attachment M- Pollutant Analysis of Treated Effluent Testing Report

Reference Technical Report 1.0 Section 7, Page 11

Reference Technical Worksheet 4.0, Page 53

Attachment N- Design Calculations

Reference Technical Report 1.1 Section 4, Page 25

Attachment O- Flood Map

Reference Technical Report 1.1 Section 5, Page 26

Attachment P- Wind Rose

Reference Technical Report 1.1 Section 5, Page 26

Attachment Q- Solids Management Plan

Reference Technical Report 1.1 Section 7, Page 27

Attachment R- Toxicity Analysis of Treated Effluent Testing Report

Reference Technical Worksheet 5.0, Page 68

ATTACHMENT A

CORE DATA FORM

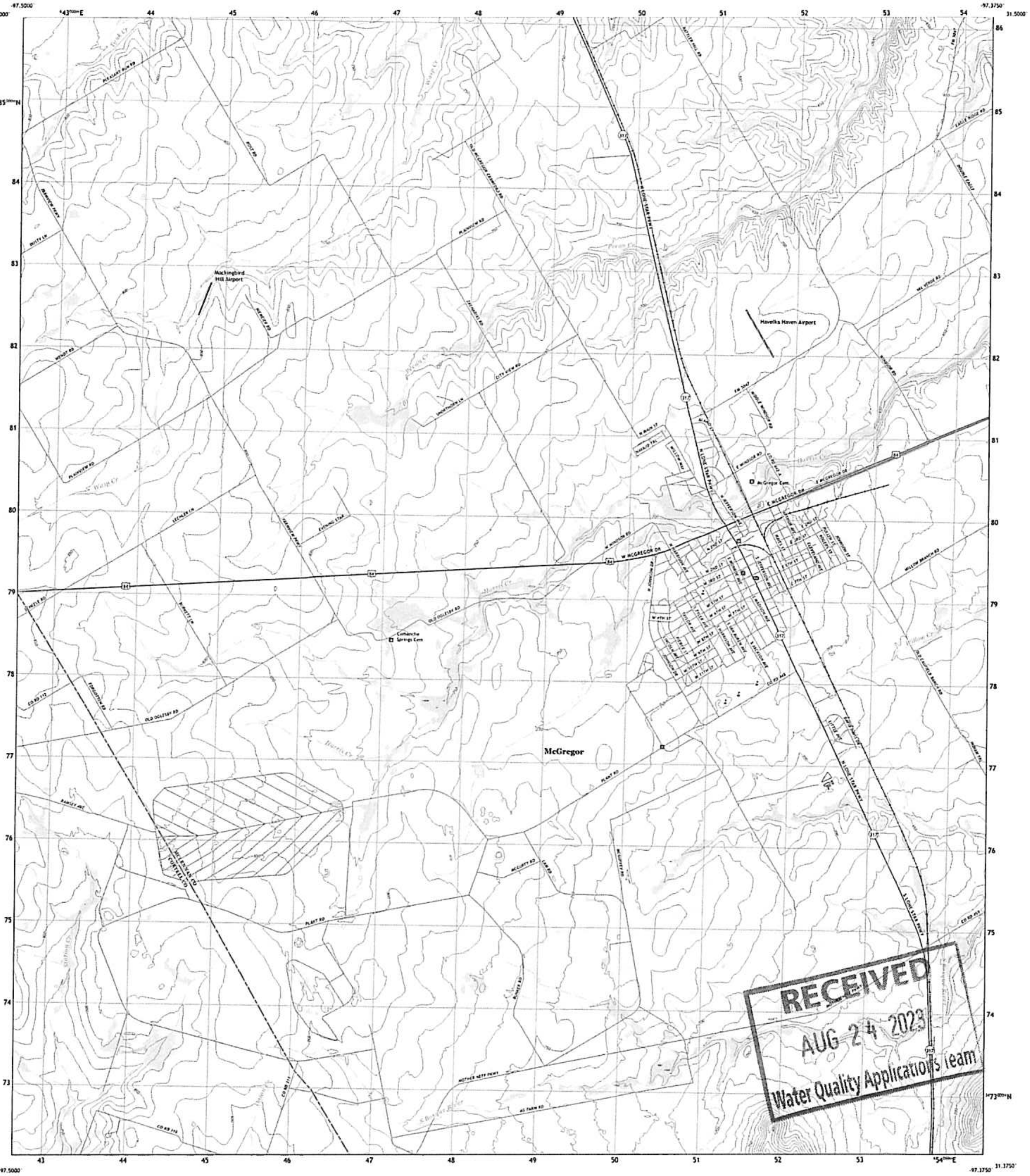
ATTACHMENT B

ORIGINAL USGS MAP

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
US Topo

MCGREGOR QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 14R
This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery .... NAIP, August 2016 - November 2016
Roads .... U.S. Census Bureau, 2015 - 2018
Names .... GNIS, 2008 - 2021
Hydrography .... National Hydrography Dataset, 2002 - 2018
Contours .... National Elevation Dataset, 2019 - 2021
Boundaries .... Multiple sources; see metadata file 2019 - 2021
Wetlands .... FWS National Wetlands Inventory Not Available

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

QUADRANGLE LOCATION

1 Coryell
2 Crawford
3 Speegleville
4 Oglesby
5 South Bosque
6 Leon Junction
7 Eagle Springs
8 Moody

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

Expressway — Local Connector
Secondary Hwy — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route

MCGREGOR, TX
2022

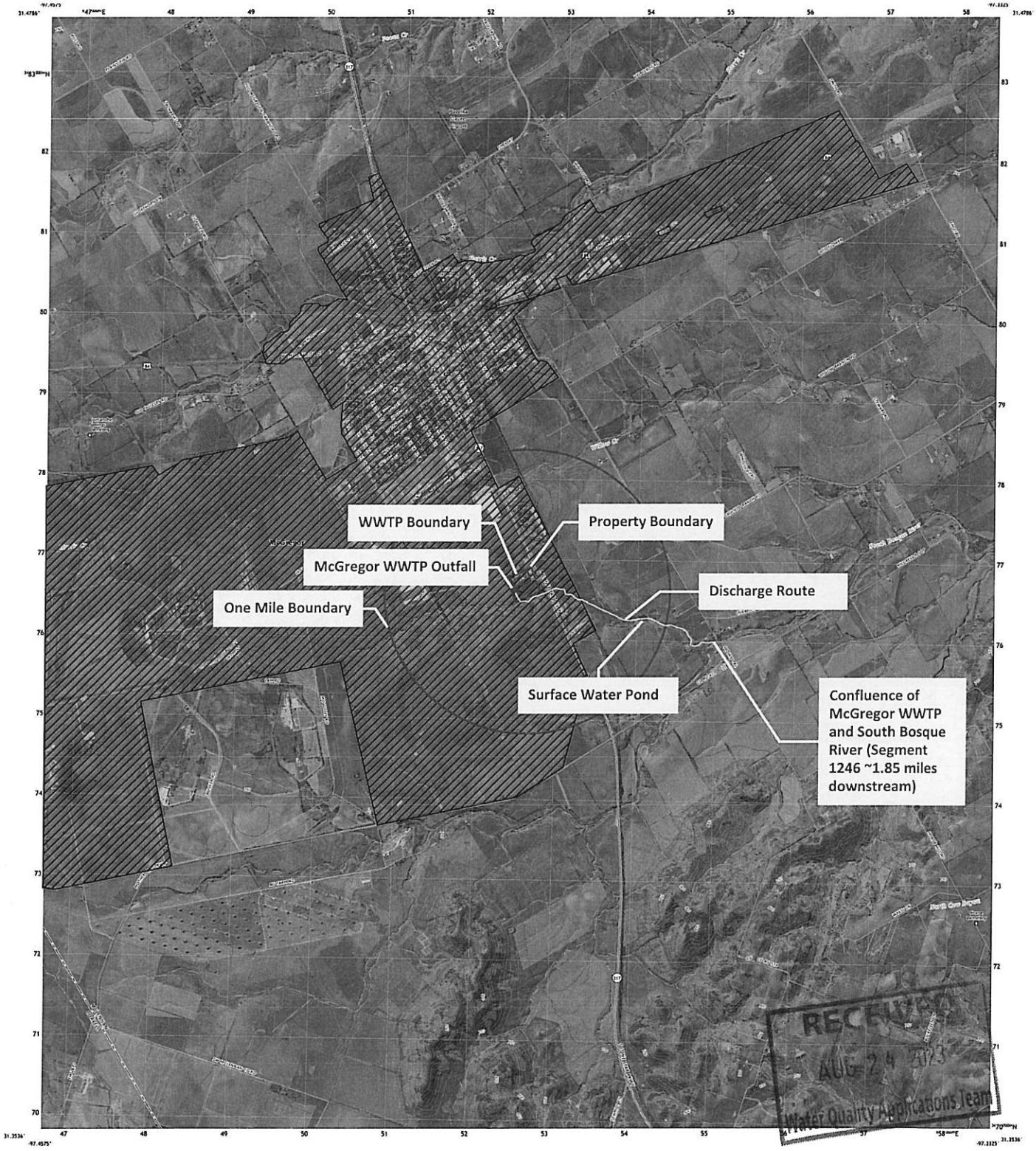
ATTACHMENT C

7.5 USGS QUADRANGLE MAP

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
OnDemand Topo

7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000 meter grid Universal Transverse Mercator, Zone 14R

Data is provided by The National Map (TNM), in the best available at the time of map generation, and includes data contens from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov

SCALE 1:24 000

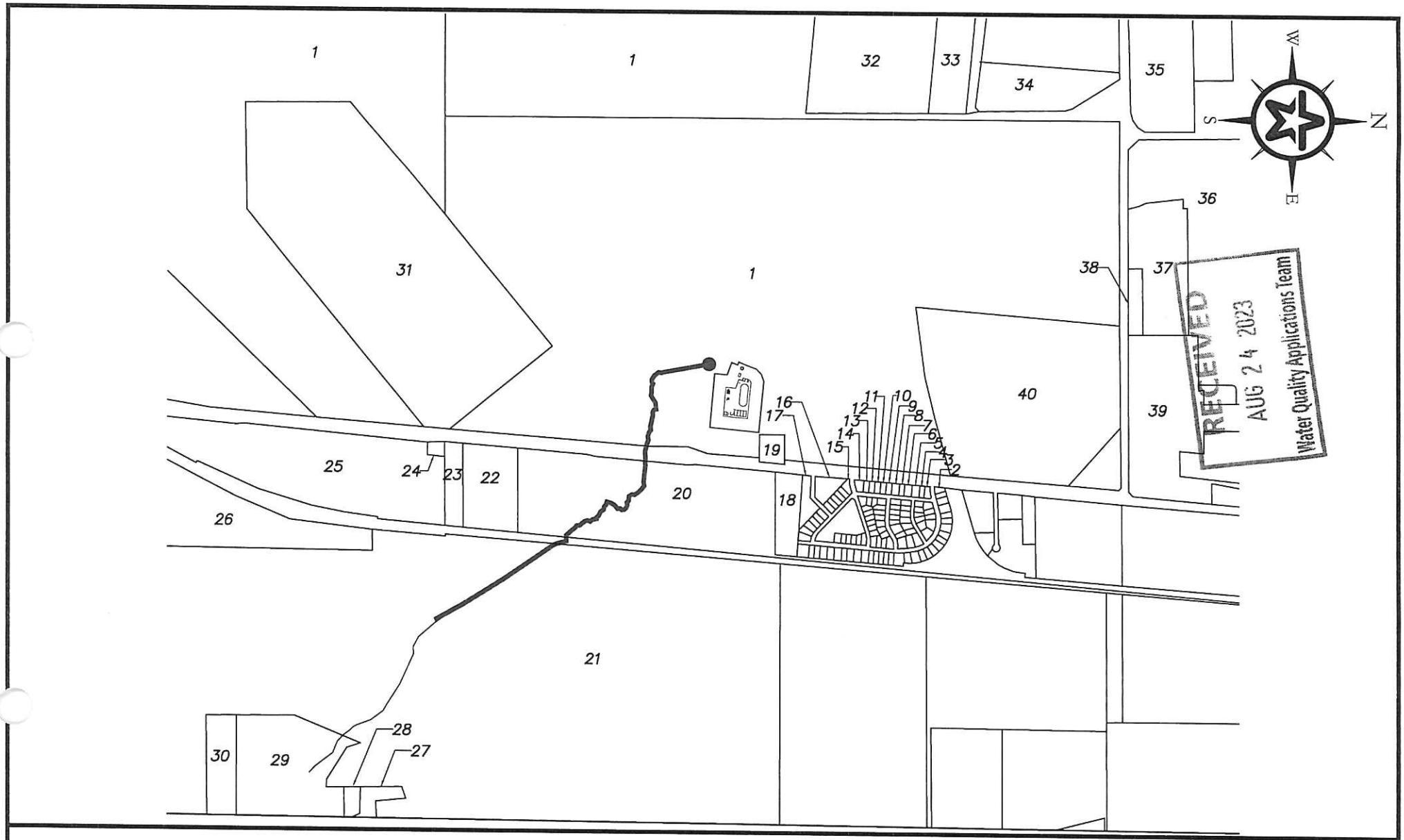
CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

ROAD CLASSIFICATION

7.5-MINUTE TOPO, TX
2023

ATTACHMENT D

AFFECTED LANDOWNER MAP



AFFECTED LANDOWNERS MAP

SCALE: 1" = 1000'

Walker Partners
engineers ★ surveyors
T.B.P.E. Registration No. 8053

CLIENT NAME: CITY OF MCGREGOR

PROJECT NAME: SOUTH MCGREGOR WWTP PERMIT RENEWAL

PROJECT NUMBER: 3-00706

DATE: 07/05/23

LEGEND

- DISCHARGE POINT
- 1-MILE DISCHARGE ROUTE
- 150 FT BUFFER

ATTACHMENT E

AFFECTED LANDOWNER LIST

Affected Land Owner List

No.	PROPERTYID	OWNER	MAILING ADDRESS	MAILING CITY, STATE, ZIP
1	135917	CITY OF MCGREGOR	PO BOX 192	MC GREGOR TX, 76657
2	137232	JAIMES MELITON ETAL	103 DAVID DAVIS DR	MC GREGOR TX, 76657
3	137322	JOHNSON KATHLEEN R	100 LITTLE AVE	MC GREGOR TX, 76657
4	137323	DOMINGUEZ LEONCIO & MARIA A VELASQUEZ	102 LITTLE AVE	MC GREGOR TX, 76657
5	137324	AVILES RENTAL PROPERTY LLC	496 CITY VIEW RD	MC GREGOR TX, 76657
6	137325	ALDER DANIEL & MARY	202 LITTLE AVE	MC GREGOR TX, 76657
7	137326	GONZALES FRED JR & BELINDA	204 LITTLE AVE	MC GREGOR TX, 76657
8	137327	VENCES MARIA JULIANA & ALBINO	206 LITTLE AVE	MC GREGOR TX, 76657
9	137328	HUERTA ROBERT O & DIANA G	300 LITTLE AVE	MC GREGOR TX, 76657
10	137329	NELSON ERNEST & HELEN	302 LITTLE AVE	MC GREGOR TX, 76657
11	137330	DEATS STEPHEN D	304 LITTLE AVE	MC GREGOR TX, 76657
12	137331	MARSHALL WAYNE L & REBECCA B	306 LITTLE AVE	MC GREGOR TX, 76657
13	137332	PANKONIEN JAYMIE A	308 LITTLE AVE	MC GREGOR TX, 76657
14	137333	OLIVAREZ MARIO	310 LITTLE AVE	MC GREGOR TX, 76657
15	137334	MCCURRY RONNIE M	400 LITTLE AVE	MC GREGOR TX, 76657
16	408018	MCGREGOR SPRINGS SQUARE	MCGREGOR SPRINGS SQUARE	MC GREGOR TX, 76657
17	408019	GK AND TK ENTERPRISES LLC	3401 NORTH RIDGE DR	WACO TX, 76710
18	135997	GRUSENDORF TOMMY	2650 S MAIN ST	MC GREGOR TX, 76657
19	317069	TXU ELECTRIC COMPANY	6555 SIERRA DR	IRVING TX, 75039
20	135992	BAR V HOLDINGS LLC	PO BOX 677	COTULLA TX, 78014
21	135984	BAR V HOLDINGS LLC	PO BOX 677	COTULLA TX, 78014
22	135994	WYATT GLEN ANTHONY & CARY JEAN	4923 GLASGOW RD	PONCA CITY TX, 74604
23	135986	HERNANDEZ DOMINGO	200 N JEFFERSON ST	MC GREGOR TX, 76657
24	135652	MCGREGOR ECONOMIC DEVELOPMENT CORPORATION	302 S MADISON ST	MC GREGOR TX, 76657
25	135650	MCGREGOR ECONOMIC DEVELOPMENT CORPORATION	302 S MADISON ST	MC GREGOR TX, 76657
26	135649	CLARY DAVID & JUDITH	373 MCGREGOR SOUTH LOOP	MC GREGOR TX, 76657
27	342871	HERNANDEZ BENITO I & ROSALBA M	201 JOHNSON ST	MC GREGOR TX, 76657
28	135602	BENITEZ AARON FLORES & BERENICE BENITEZ CRUZ	780 INDIAN TRAIL RD	MC GREGOR TX, 76657
29	370610	BAR V HOLDINGS LLC	PO BOX 677	COTULLA TX, 78014
30	135612	KETCHAM MICHAEL & SOPHIA INESTA	1056 INDIAN TRL	MC GREGOR TX, 76657
31	413605	KNAUF INSULATION INC	1 KNAUF DR	SHELBYVILLE TX, 46176
32	351664	SCF RC FUNDING IV LLC	902 CARNEGIE CENTER BLVD STE 520	PRINCETON TX, 08542
33	413742	TRANSTECH FABRICATION LLC	2201 JUDITH DR	MC GREGOR TX, 76657
34	381987	ARNOLD WACO LLC	19224 CR 8	BRISTOL TX, 46507
35	323074	HEART OF TEXAS ELECTRIC COOPERATIVE INC	PO BOX 357	MC GREGOR TX, 76657
36	359994	CITY OF MCGREGOR	PO BOX 192	MC GREGOR TX, 76657
37	359987	MCGREGOR ISD	PO BOX 356	MC GREGOR TX, 76657
38	359993	CITY OF MCGREGOR	PO BOX 192	MC GREGOR TX, 76657
39	359985	MCGREGOR ISD	PO BOX 356	MC GREGOR TX, 76657
40	137173	FERGUSON ENTERPRISES INC	PO BOX 2778	NEWPORT NEWS VA, 23609

ATTACHMENT F

ORIGINAL PHOTOGRAPHS

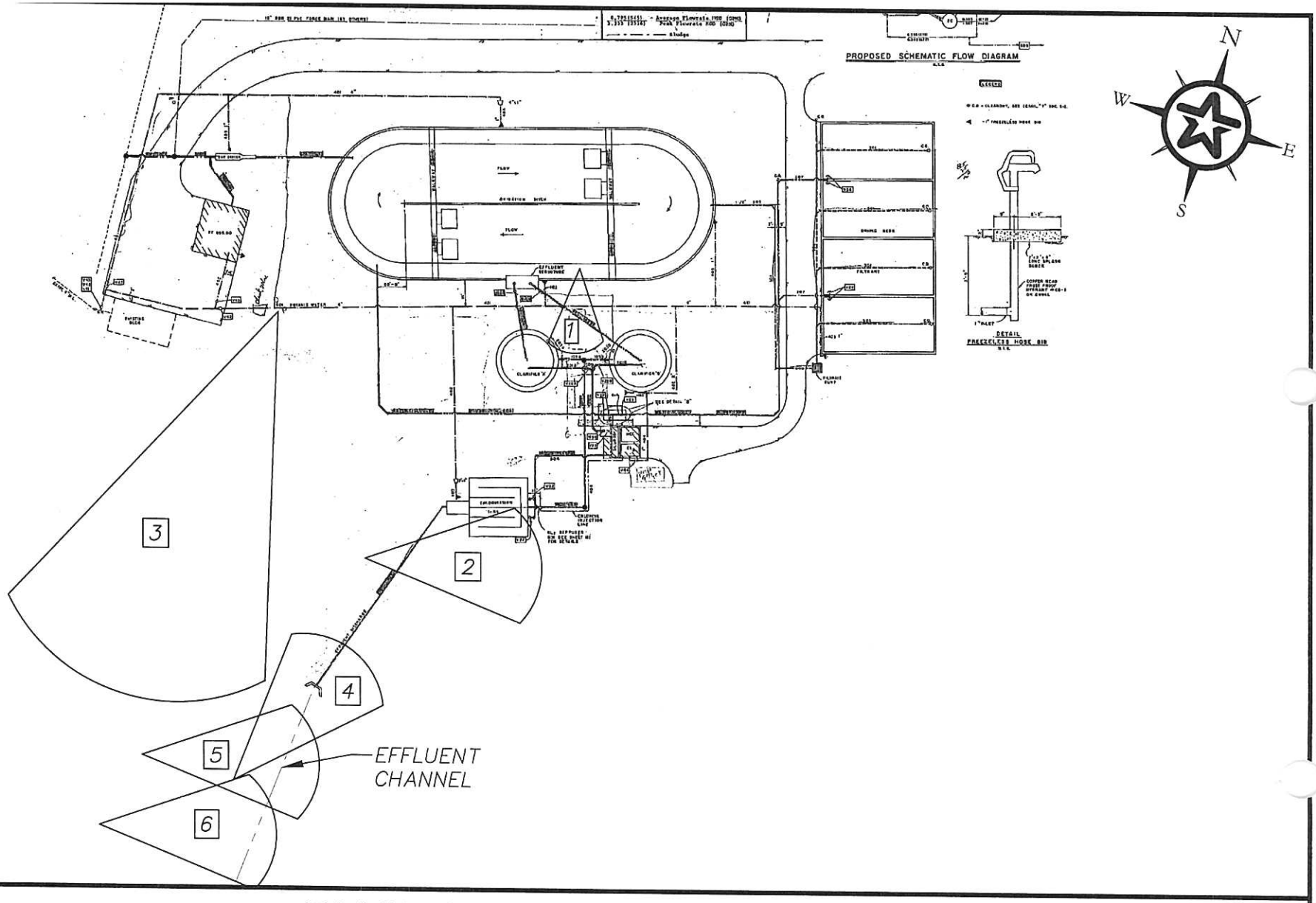


PHOTO LOCATION MAP

SCALE: 1" = 100'

Walker Partners
engineers ★ surveyors
T.B.P.E. Registration No. 8053

CLIENT NAME: CITY OF MCGREGOR

PROJECT NAME: SOUTH MCGREGOR WASTEWATER TREATMENT PLANT PERMIT RENEWAL

PROJECT NUMBER: 3-00706

DATE: 10/08/2018

G

Photo #1

Photo #2

Photo #3

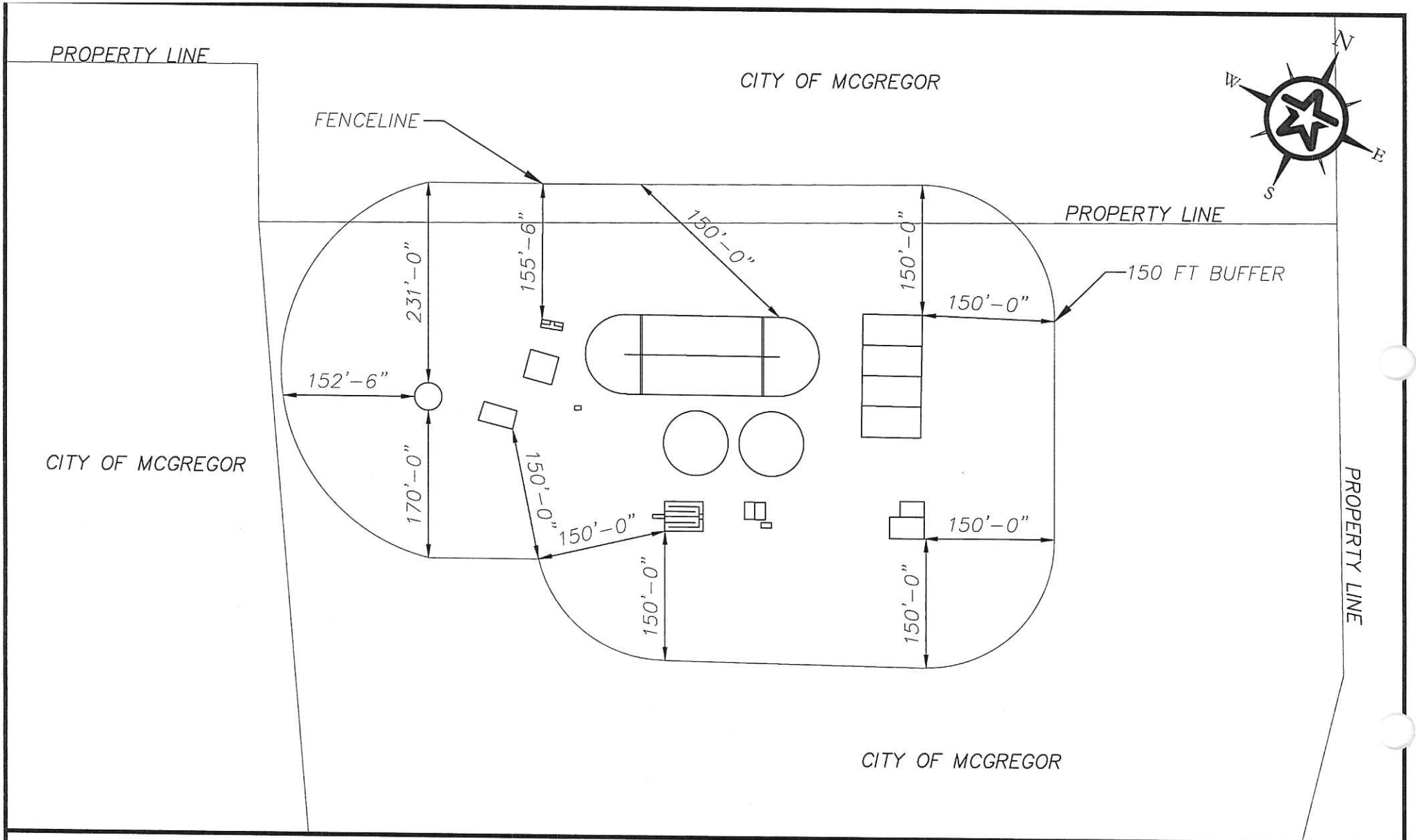
Photo #4

Photo #5

Photo #6

ATTACHMENT G

BUFFER ZONE MAPS



EXISTING BUFFER ZONE MAP

SCALE: 1" = 120'

Walker Partners
engineers ★ surveyors
T.B.P.E. Registration No. 8053

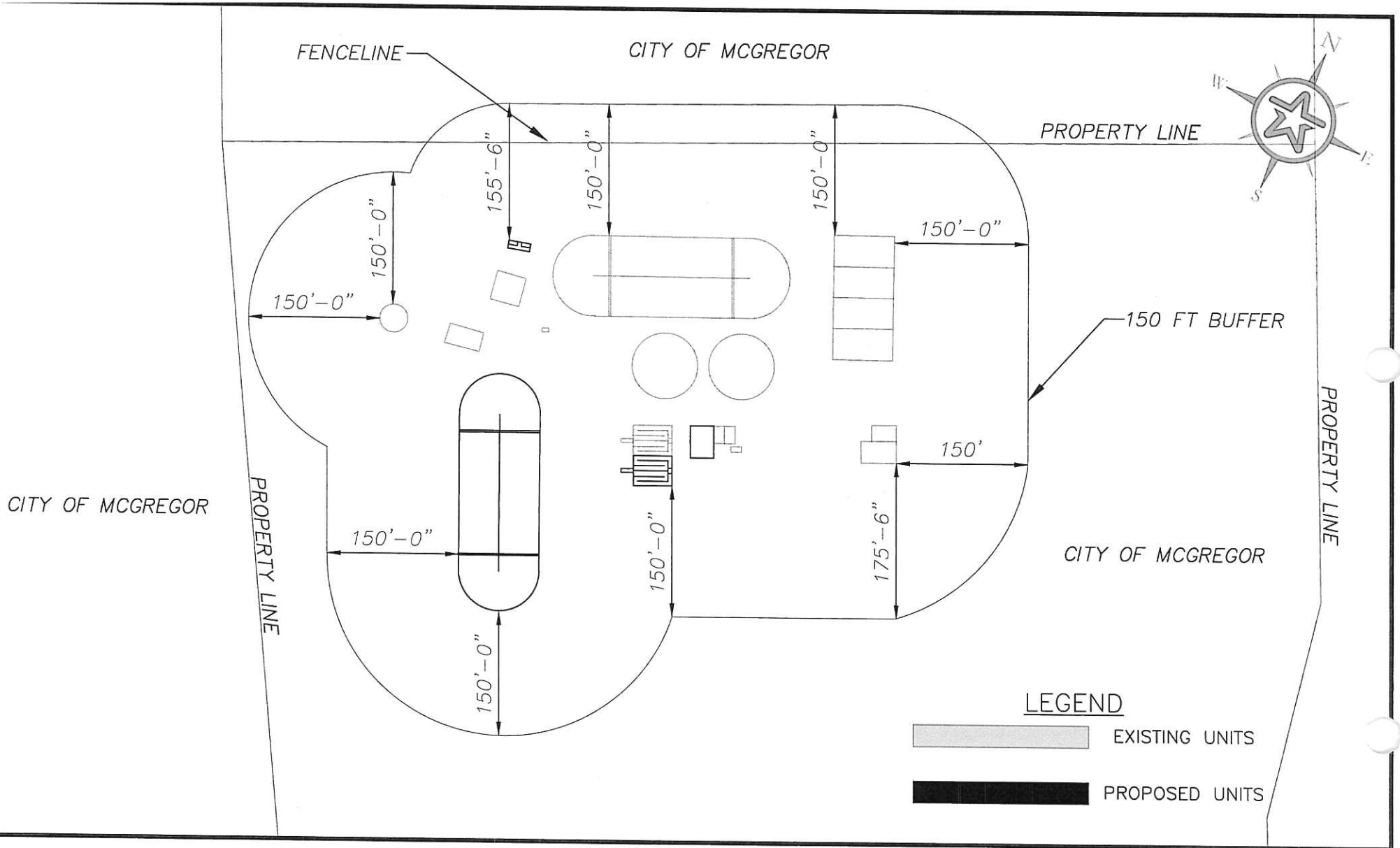
CLIENT NAME: CITY OF MCGREGOR

PROJECT NAME: SOUTH MCGREGOR WASTE WATER TREATMENT PLANT PERMIT RENEWAL

PROJECT NUMBER: 3-00706

DATE: 8/9/2023

F



PROPOSED BUFFER ZONE MAP

SCALE: 1" = 120'

Walker Partners
engineers ★ surveyors
T.B.P.E. Registration No. 8053

CLIENT NAME: CITY OF MCGREGOR

PROJECT NAME: SOUTH MCGREGOR WASTE WATER TREATMENT PLANT PERMIT RENEWAL

PROJECT NUMBER: 3-00706

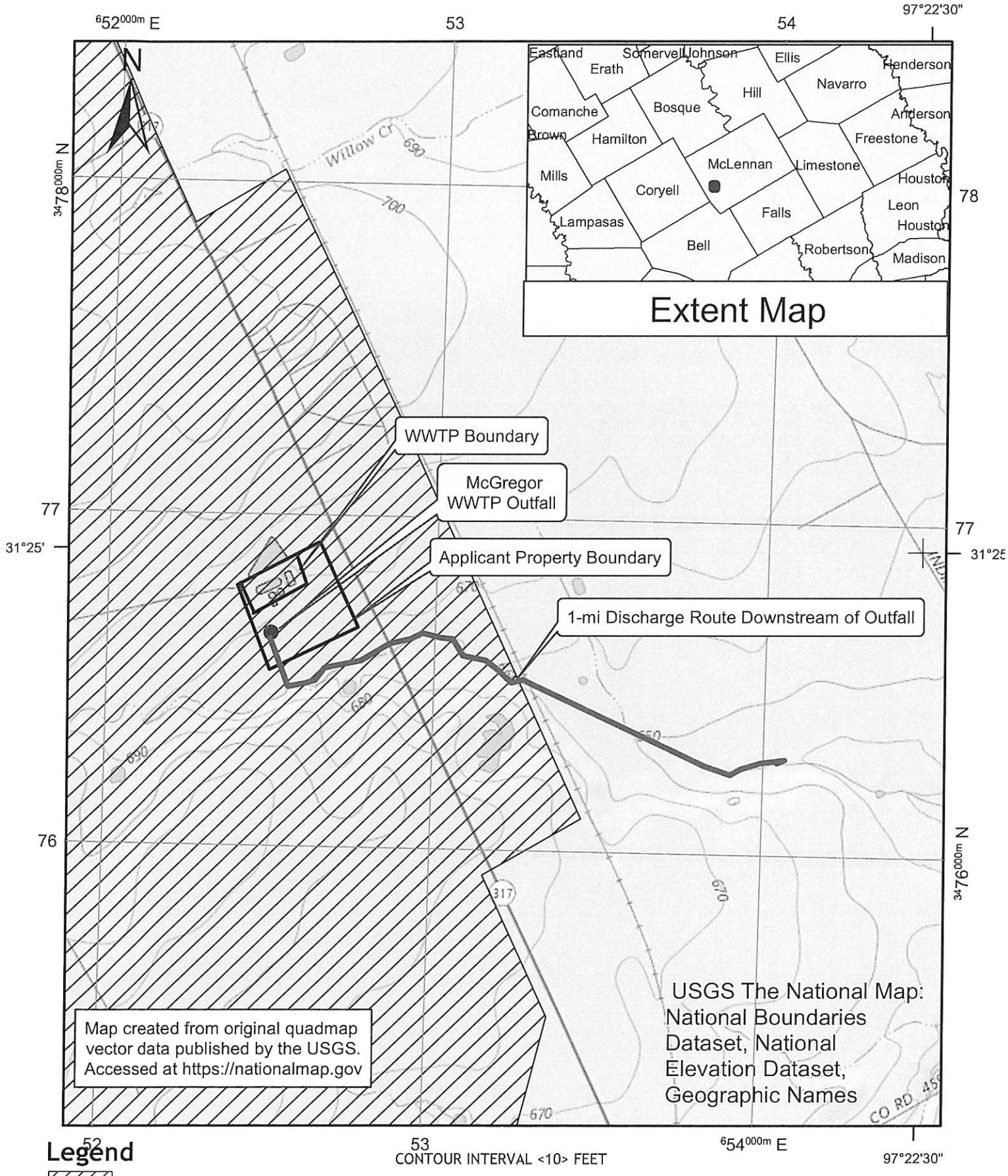
DATE: 8/9/2023

F

ATTACHMENT H

SPIF5

USGS TOPOGRAPHIC MAP



Legend

McGregor City Limits

0 1
MILES

0 2,000 4,000 6,000
FEET

ATTACHMENT I

DETAILED DESCRIPTION OF THE TREATMENT PROCESS

WWTP Process Description

The McGregor Wastewater Treatment Plant (WWTP) is an activated sludge facility that utilizes oxidation ditches that are operated like extended aeration plants. See attachment J for the list of treatment units and attachment I for the existing and proposed flow diagrams.

The wastewater treatment process begins as the flow enters the WWTP (Wastewater Treatment Plant) through the headworks bar screen, which helps to remove large debris and solids. Subsequently, the flow moves into the oxidation ditch, where biological treatment occurs, breaking down organic matter and reducing contaminants. After the oxidation process, the flow proceeds to the final clarifiers, where the remaining suspended solids settle to the bottom, resulting in clearer water at the surface.

Following the clarification step, the flow enters the chlorine contact basin, where it is treated with chlorine to disinfect and eliminate any remaining harmful microorganisms. Once treated, the flow undergoes dechlorination to neutralize the chlorine, ensuring the water is safe for discharge. The treated water is then released into the environment.

In the treatment process, two types of sludge are generated: Return Activated Sludge (RAS) and Waste Activated Sludge (WAS). RAS, collected from the bottom of the clarifiers, is returned to the headworks using RAS pumps, enabling the recycling of active microorganisms. On the other hand, WAS is taken from the clarifiers' bottom and pumped to a belt press for dewatering. The dewatered sludge is then managed and disposed of properly by waste management through landfilling.

Finally, the flow from the dewatering process is recycled back into the oxidation ditch, completing the treatment cycle. This comprehensive wastewater treatment system ensures that the discharged water meets the required environmental standards and contributes to the preservation of our natural water resources.

ATTACHMENT J

TREATMENT UNIT DIMENSIONS

1.1 MGD 3460 gpm peak

Existing

	Size	
Bar Screen	3'x3'x3'	Manual Bar Screen 1" Bar Spacing
Oxidation Ditch Volume	1 @ 115,842 cf	115,842 cf total
Oxidation Ditch Aeration	5 @ 20 HP/EA	4800 #O2/day
Clarifiers Overflow Rate (peak)	2 @ 70' diameter	647.4 gpd/sf
Clarifiers Weir Loading Rate		11,328.27 gpd/ft
Clarifiers Detention Time (peak)		2.77 Hrs
RAS Pumps		3 @ 535 gpm
WAS Pumps		2 @ 25- 50 gpm
Chlorine Contact Basin Volume		51,881 gallons
Chlorine Contact Cl2 Capacity		332.63 lbs/day
Dechlor Capacity		83.16 lbs/day
Sludge Production at Permitted Flow		1836 lbs/day
Sludge Dewatering Capacity (in place)		150 gpm

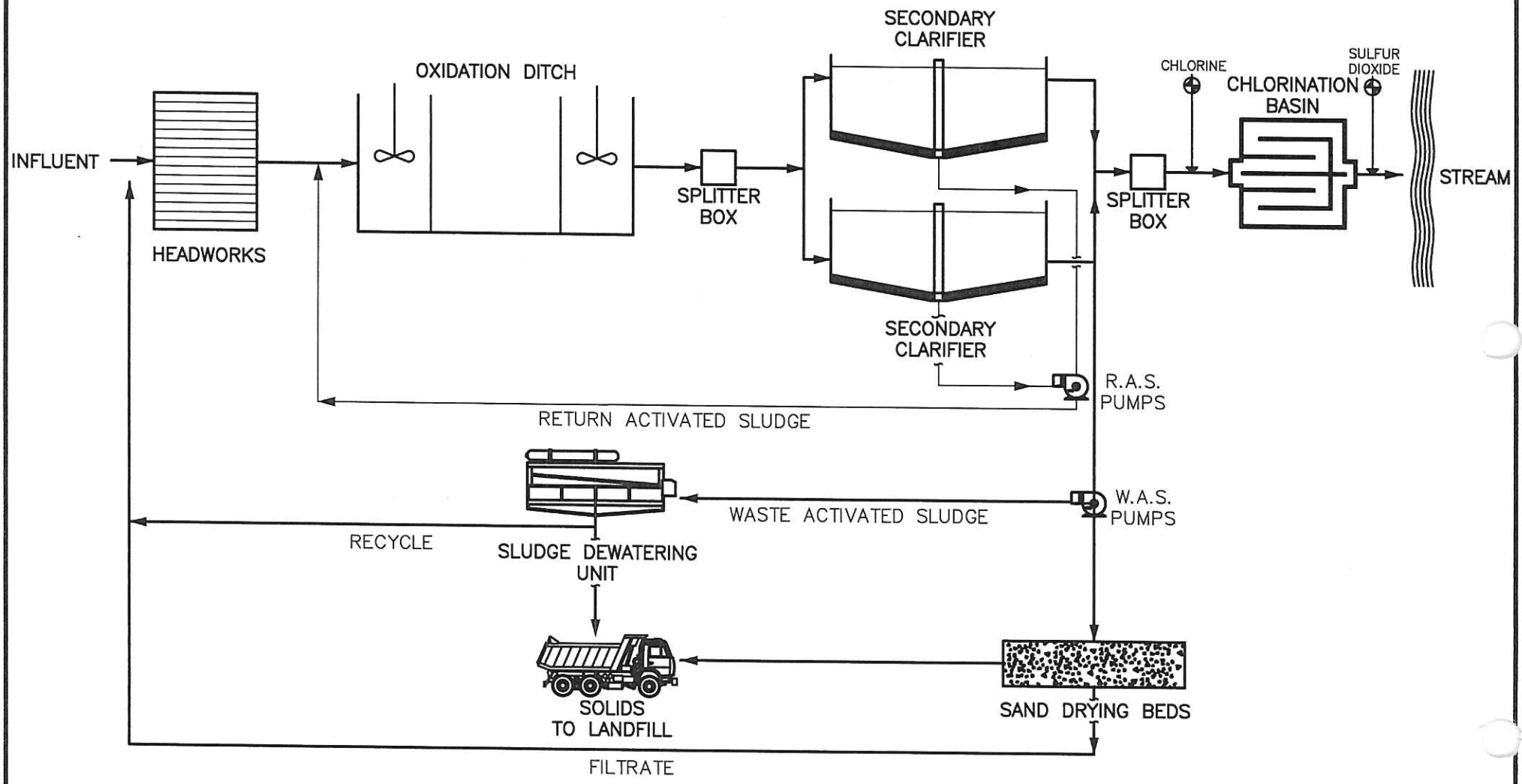
1.67 MGD 4050 gpm peak

Proposed

Bar Screen (Proposed in New Location)	3'x3'x3'	Huber Step Screen
Oxidation Ditch Volume	2 @ 115,842 cf	231,684 cf total
Oxidation Ditch Aeration	10 @ 20 HP/EA	9600 #O2/day
Clarifiers Overflow Rate (peak)	2 @ 70 '	757.8 gpd/sf
Clarifiers Weir Loading Rate (peak)		13,257.7,gpd/ft
Clarifiers Detention Time (peak)		2.368 hrs.
RAS Pumps		3 @ 535 gpm
WAS Pumps		2 @ 30 - 75 gpm
Chlorine Contact Basin Volume	81,000 gallons	2 @ 26 x 52 x 8 EA
Chlorine Contact Cl2 Capacity		390 lbs/day
Dechlor Capacity		97.5 lbs/day
Sludge Production at Permitted Flow		3484 lbs/day
Sludge Dewatering Capacity (required)		140 gpm 7 hrs/day 5 days/wk

ATTACHMENT K

PROCESS FLOW DIAGRAMS



EXISTING PROCESS FLOW DIAGRAM

Walker Partners
engineers ★ surveyors
T.B.P.E. Registration No. 8053

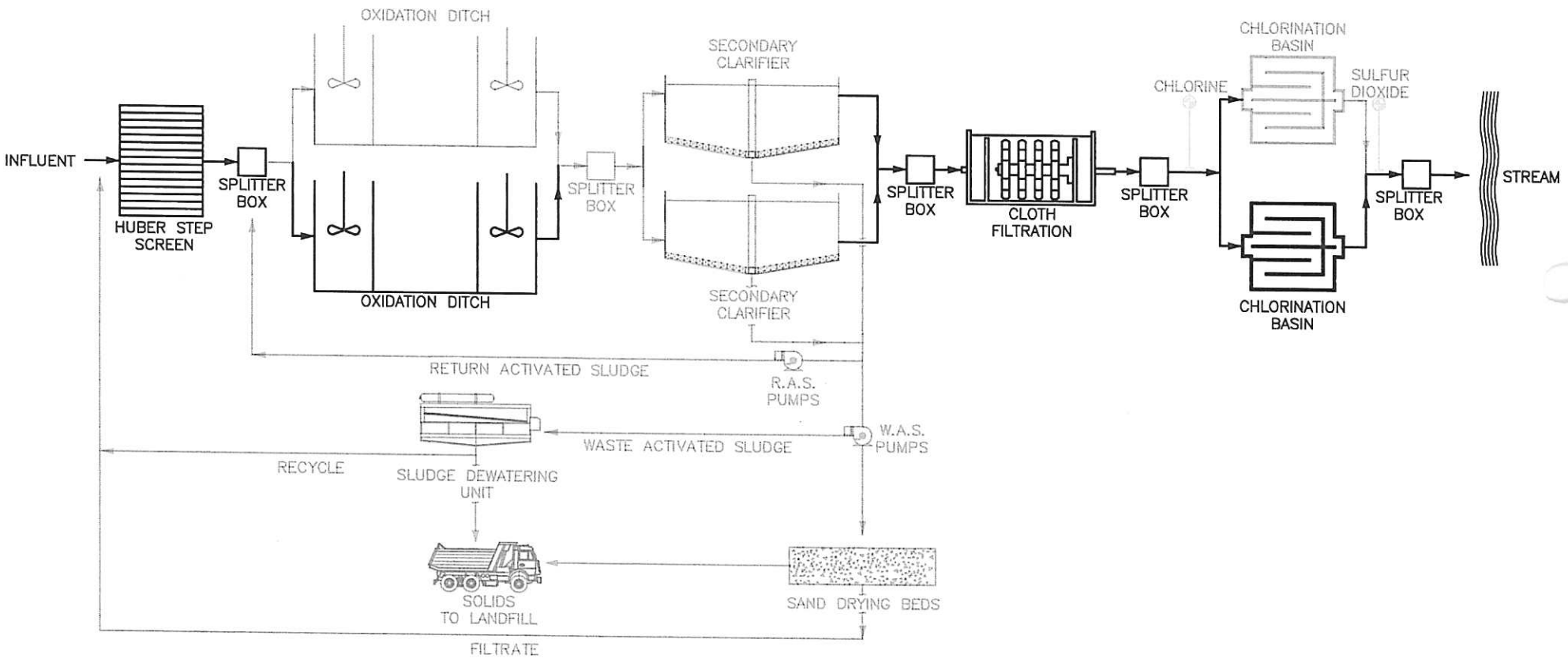
CLIENT NAME: CITY OF MCGREGOR

PROJECT NAME: SOUTH MCGREGOR WASTEWATER TREATMENT PLANT

PROJECT NUMBER: 3-00706

DATE: 8/9/2023

1



PROPOSED PROCESS FLOW DIAGRAM

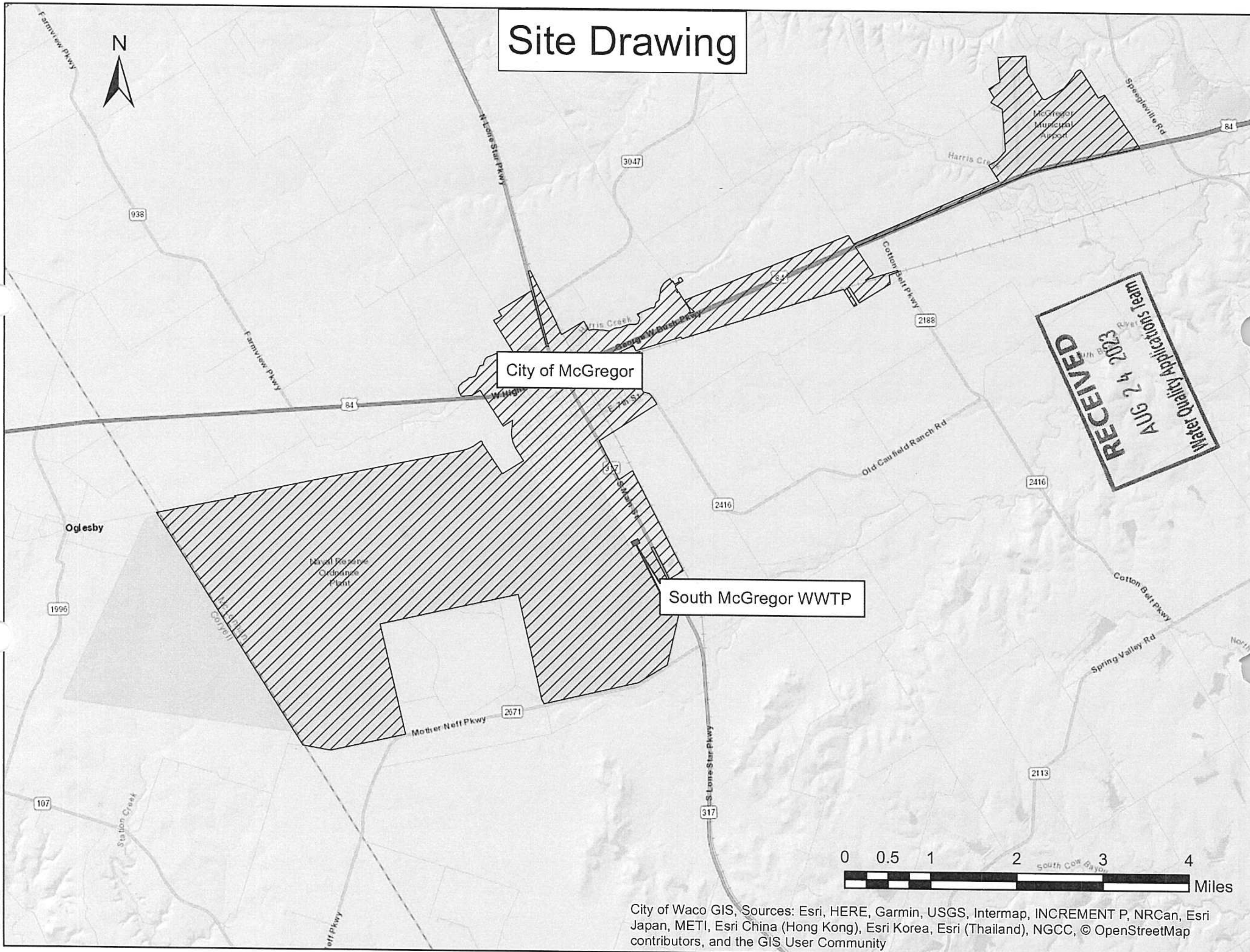
Walker Partners
engineers ★ surveyors
T.B.P.E. Registration No. 8053

CLIENT NAME: CITY OF MCGREGOR
PROJECT NAME: SOUTH MCGREGOR WASTEWATER TREATMENT PLANT
PROJECT NUMBER: 3-00706
DATE: 8/9/2023

1

ATTACHMENT L

SITE DRAWING


Site Drawing
N
City of McGregor
South McGregor WWTP
Naval Reserve Ordnance Plant
McGregor Municipal Airport
Oglesby
Farmview Pkwy
N Lone Star Pkwy
S Lone Star Pkwy
Mother Neff Pkwy
George W Bush Pkwy
Cotton Belt Pkwy
Old Caufield Ranch Rd
Spring Valley Rd
Speegleville Rd
Harris Creek
Station Creek
South Cow Bayou
84
938
3047
2188
2416
2671
1996
107
317
2113
0 0.5 1 2 3 4
Miles
RECEIVED
AUG 24 2023
Water Quality Applications Team
City of Waco GIS, Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

ATTACHMENT M

POLLUTANT ANALYSIS OF TREATED EFFLUENT TESTING REPORT

ATTACHMENT N

DESIGN CALCULATIONS

Existing Design Calculations

Influent Quality Characteristics- The raw sewage characteristics used for design purposes are as follows:

Parameter	Concentration
BOD_5	200 mg/L
TSS	200 mg/L

Influent Flow Characteristics- The hydraulic design of the facility must guarantee seamless operation even under the most extreme conditions that we anticipate. To achieve this goal, the facility process and hydraulic design are as follows:

Table 1 – Flow Design Calculations

Flow	Gallons Per Day	Gallons Per Minute
Average Daily Flow	1,100,000	764
Peak 2-Hour Flow	4,980,000	3,460

Table 2 – Loading Rate Calculations

Loading	Pounds Per Day
BOD_5	1,834.8
TSS	1,834.8

Process Design- The treatment facility will be designed to produce an effluent quality in compliance with the proposed permitted parameters of:

$CBOD_5$ = 15 mg/L; TSS = 15 mg/L; NH3-N = 3 mg/L; DO = 4 mg/L

Cl_2 Residual = 1 mg/L after 20 minutes detention time at peak flow.

In order to achieve the required removal efficiencies, the activated sludge process operated in the conventional mode with nitrification has been chosen. The 7-day low reactor temperature is 50°F with a maximum of 68°F. The anticipated operating ranges for MLSS and RAS are 2500-3000 mg/L and 8,000-10,000 mg/L, respectively.

Proposed Design Calculations

Influent Quality Characteristics- The raw sewage characteristics used for design purposes are as follows:

Parameter	Concentration
BOD_5	250 mg/L
TSS	250 mg/L

Influent Flow Characteristics- The hydraulic design of the facility must guarantee seamless operation even under the most extreme conditions that we anticipate. To achieve this goal, the facility process and hydraulic design are as follows:

Table 1 – Flow Design Calculations

Flow	Gallons Per Day	Gallons Per Minute
Average Daily Flow	1,670,000	1,160
Peak 2-Hour Flow	5,832,000	4,050

Table 2 – Loading Rate Calculations

Loading	Pounds Per Day
BOD_5	3,482
TSS	3,482

Process Design- The treatment facility will be designed to produce an effluent quality in compliance with the proposed permitted parameters of:

$CBOD_5$ = 5 mg/L; TSS = 12 mg/L; NH3-N = 1.5 mg/L; DO = 6 mg/L

Cl_2 Residual = 1 mg/L after 20 minutes detention time at peak flow.

In order to achieve the required removal efficiencies, the activated sludge process operated in the conventional mode with nitrification has been chosen. The 7-day low reactor temperature is 50°F with a maximum of 68°F. The anticipated operating ranges for MLSS and RAS are 2500-3000 mg/L and 8,000-10,000 mg/L, respectively.

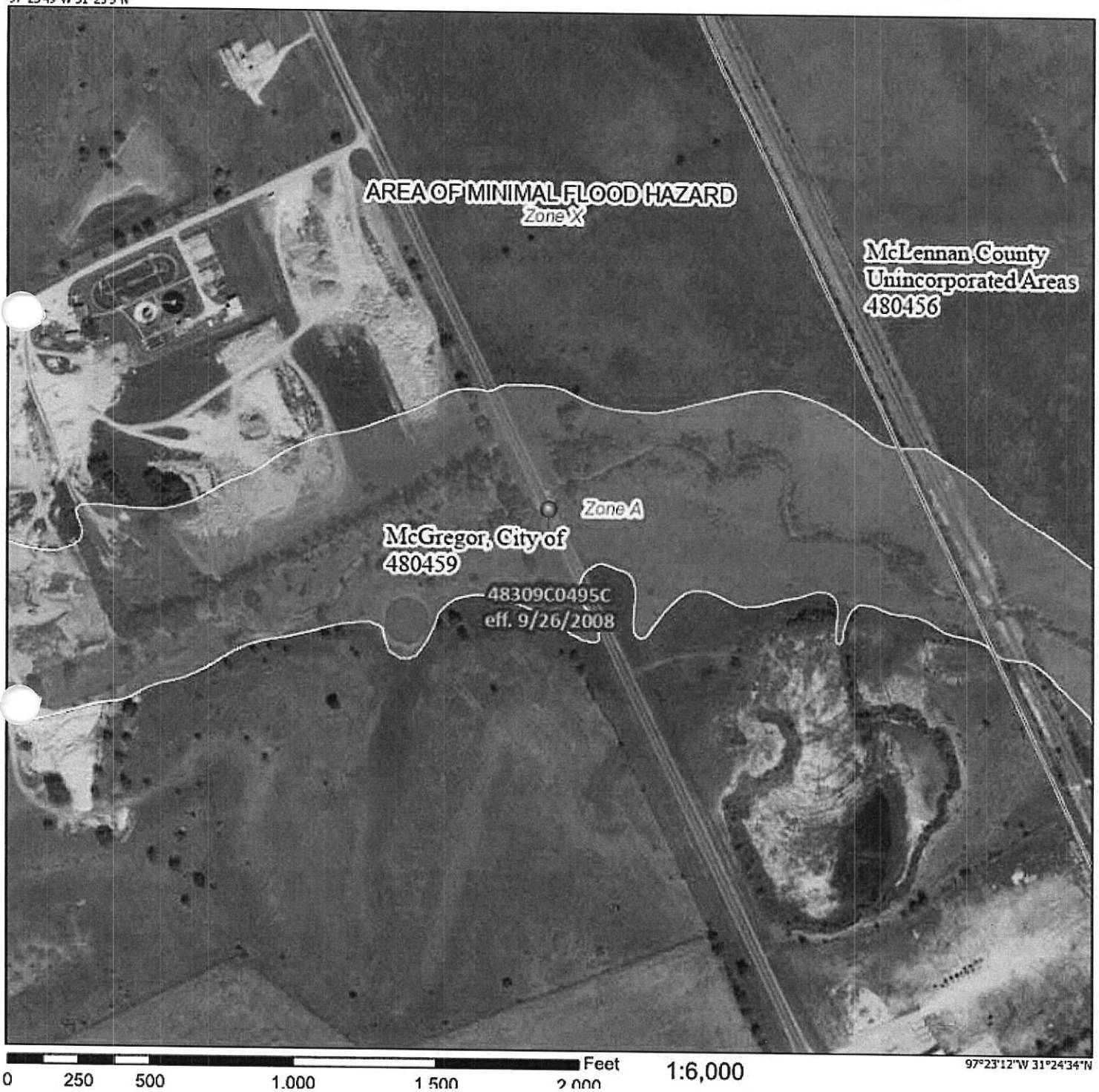
ATTACHMENT O

FLOOD MAP

National Flood Hazard Layer FIRMette

FEMA

97°23'49"W 31°25'5"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

97°23'12"W 31°24'34"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zon

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

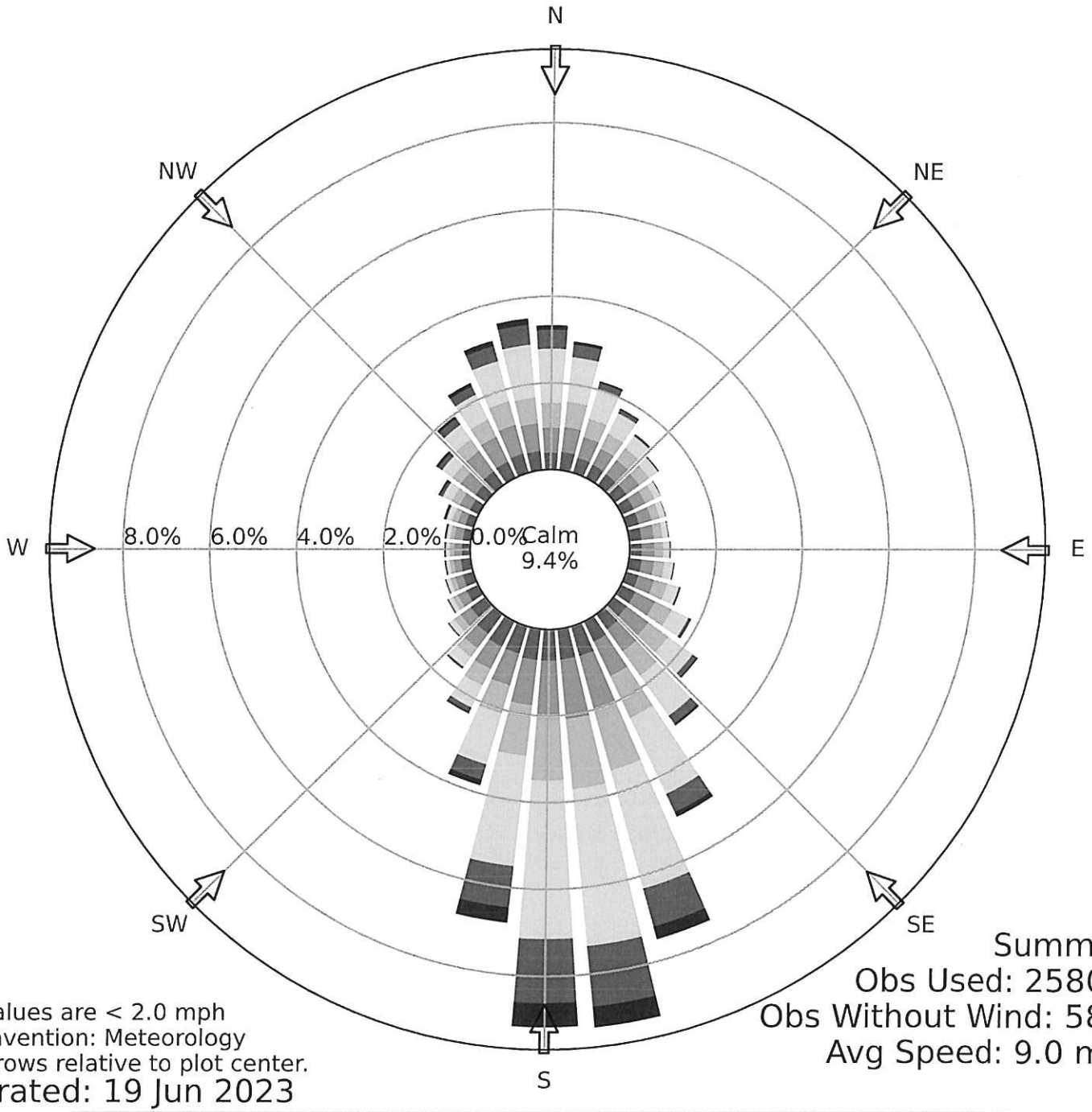
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/19/2023 at 1:56 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for

ATTACHMENT P

WIND ROSE

Windrose Plot for [PWG] MC GREGOR (AWOS)
Obs Between: 01 May 1992 01:00 AM - 18 Jun 2023 11:56 PM America/Chicago



Summary
Obs Used: 258057
Obs Without Wind: 5885
Avg Speed: 9.0 mph

alm values are < 2.0 mph
ar Convention: Meteorology
ow arrows relative to plot center.
ienerated: 19 Jun 2023

Wind Speed [mph]
2 - 4.9 | 5 - 6.9 | 7 - 9.9 | 10 - 14.9 | 15 - 19.9 | 20+

ATTACHMENT Q

SOLIDS MANAGEMENT PLAN

City of McGregor WWTP Solids Management Plan

	Existing Solids Management Facilities			Proposed Solids Management Facilities		
Final Clarifiers						
Quantity	2	Clarifiers				
Diameter	70	ft				
Surface Area, ea	3,848	sq ft				
Surface Area, total	7,696	sq ft				
Sidewater Depth	10	ft		Same		
Volume, ea	38,480	cu ft				
	287,830	gallons				
Volume, total	76,960	gallons				
Weir Length, ea	219.91	ft				
Weir Length, total	439.82	ft				
Return Activated Sludge Pumps (RAS)						
Quantity	3	Pumps				
Type	Submersible					
Speed	Constant			Same		
Capacity, ea	535	gpm	Flow rated @ 41 ft head			
Capacity, total	1070	gpm	Flow rated @ 41 ft head			
RAS Wet Well Volume	6,000	gallons				
Waste Activated Sludge Pumps (WAS)/ Thickened Sludge						
Quantity	2	Pumps				
Type	Progressive Cavity					
Speed	Variable			Same		
Capacity, ea	150	gpm	Flow rated @ 17 ft head			
Capacity, total	150	gpm				
WAS Wet Well Volume	6,000	gallons				
Biosolids Dewatering						
Quantity	1					
Type	Belt Filter Press		1 meter belt press	Same		
Capacity, ea	150	gpm				

City of McGregor WWTP Solids Management Plan

	Existing	Proposed
Influent Design Flow	1.1 MGD	1.67 MGD
Influent BOD	200 mg/l	250 mg/l
Aeration Basin MLSS	2500 - 3000 mg/l	2500 - 3000 mg/l

Sludge Production at existing flow rate of 1.1 MGD

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds of Influent BOD	1836	1377	918	459
Dry Digested Sludge Produce	1836	1377	918	459

Sludge Production at proposed flow rate of 1.67 MGD

Solids Generated	100% Flow	75% Flow	50% Flow	25% Flow
Pounds of Influent BOD	3484	2613	1742	871
Dry Digested Sludge Produce	3484	2613	1742	871

Sludge is wasted from the RAS/WAS sump to the belt press for dewatering. The belt press discharges dewatered sludge to a roll off box that is picked up by Waste Management when full. The full roll off box is replaced with an empty one on pick up. Dewatered sludge is disposed of at the Lacy Lakeview Waste Management Landfill.

ATTACHMENT R

TOXICITY ANALYSIS OF TREATED EFFLUENT TESTING REPORT

Bio-Aquatic Testing, Inc.

TCEQ TNI Accredited

City of McGregor
McGregor WWTP
OUTFALL 001

Client Address:
2829 SOUTH MAIN
MCGREGOR, TX 76657

Chronic Biomonitoring Report

84800

Ceriodaphnia dubia
Pimephales promelas

April 25, 2023

Approved by: Joshua Reed

Bio-Aquatic Testing, Inc. • 2501 Mayes Rd. Ste. 100 • Carrollton, Texas • 75006

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***HAND-WRITTEN RAW DATA TABLES ARE AVAILABLE UPON REQUEST**

BIO-AQUATIC TESTING, INC.
2501 Mayes Road, Suite 100
Carrollton, Texas 75006
Tel: (972) 242-7750
Fax: (972) 242-7749

TOXICITY TEST REPORT - Chronic

Client:	McGregor, City of	Sample:	001
Facility:	McGregor WWTP	Laboratory Number:	84800
Permit No.	WQ0010219002	Date:	April 25, 2023

Ceriodaphnia dubia **passed** survival and reproduction testing requirements. *Pimephales promelas* **passed** survival and growth testing requirements.

SAMPLE COLLECTION:

Composite effluent samples from the City of McGregor, McGregor WWTP, were received on April 25, 2023, April 27, 2023, and May 01, 2023. Effluent samples were collected from Outfall 001 by Bio-Aquatic personnel.

The effluent samples were analyzed for total residual chlorine using the Hanna Ion Specific Meter #711 and contained <0.10 mg/L, <0.10 mg/L, and <0.10 mg/L, respectively. Effluent and laboratory dilution water pH, temperature, and dissolved oxygen data were collected daily.

TEST PROCEDURES:

Ceriodaphnia dubia

EPA METHOD: 1002

The seven-day (three brood) Chronic *Ceriodaphnia dubia* survival and reproduction test was initiated at 14:50 hours on April 25, 2023. Five effluent concentrations of 30%, 40%, 53%, 71% and 94% were prepared using synthetic water as dilution water. The test was set up with 30mL plastic cups containing 15mL of test solution or control dilution water. Each effluent concentration or control dilution water included ten replicate cups with one organism in each cup. The control was conducted concurrently with the test. Test organisms were less than 24-hour old laboratory cultured neonates. Neonates were introduced into the test solutions using a blocking design. The test was renewed daily with newly prepared solutions. Food consisting of a half-milliliter suspension of the green algae, *Selenastrum capricornutum,* and YTC was added to the test solutions each day. The test proceeded for seven days or until 60% of the females in the control had three broods. Data on survival and number of young produced per female were collected daily. The test ended at 09:40 hours on May 03, 2023. Survival and reproduction data were statistically (p=0.05) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

SURVIVAL:

Ceriodaphnia dubia

Fisher's Exact test on *Ceriodaphnia dubia* survival test data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

LOEC: Not Calculable (Q)
NOEC: 94% Effluent

REPRODUCTION:

Ceriodaphnia dubia

The *Ceriodaphnia dubia* reproduction data were normally distributed at the alpha level of 0.01 (13.277) using the Chi-square test for normality. Reproduction data were shown to be homogeneous using Bartlett's test at the alpha level of 0.01 (15.09) without data transformations. Using ANOVA and Dunnett's test (with Bonferroni adjustment as appropriate for Sub-Lethality), *Ceriodaphnia dubia* reproduction data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

LOEC: Not Calculable (Q)
NOEC: 94% Effluent

TEST PROCEDURES:

Pimephales promelas

EPA METHOD: 1000

The seven-day Chronic *Pimephales promelas* survival and growth test was initiated at 16:03 hours on April 25, 2023. Five effluent concentrations of 30%, 40%, 53%, 71% and 94% were prepared using synthetic water as dilution water. The test was set up with 450mL plastic cups containing 250mL of test solution as test chambers. Each concentration consisted of five replicate chambers containing eight organisms each, giving a total of 40 (forty) per treatment. The control test was conducted concurrently with the test. Test organisms were laboratory-cultured *Pimephales promelas* larvae less than 24-hours old. The number of surviving larvae and water quality parameters in the old test solutions were recorded after each 24-hour period. The test was renewed daily with fresh solutions. Surviving larvae in each test chamber were fed freshly hatched brine shrimp two times per day. The test proceeded for seven days.

At the end of the test, all organisms were sacrificed, dried, and weighed. Data on surviving organisms and water quality were collected. The test ended at 10:24 hours on May 02, 2023. Survival and growth (weight) were statistically (p=0.05) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

SURVIVAL:

Pimephales promelas

The non-parametric Steel's Many-One Rank test performed on *Pimephales promelas* survival data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

LOEC: Not Calculable (Q)
NOEC: 94% Effluent

GROWTH:

Pimephales promelas

The *Pimephales promelas* growth data were normally distributed at the alpha level of 0.01 (0.900) using Shapiro Wilk's test for normality. Growth data were shown to be homogeneous using Bartlett's test at the alpha level of 0.01 (15.09) without data transformations. Using ANOVA and Dunnett's test on *Pimephales promelas* growth data demonstrated no statistically significant differences between the control and any of the effluent concentrations tested.

LOEC: Not Calculable (Q)
NOEC: 94% Effluent

BIO-AQUATIC TESTING, INC.

TOXICITY TEST

Chronic *Ceriodaphnia dubia*

Client: McGregor, City of McGregor WWTP

Lab ID: 84800

Permit Number: NPDES WQ0010219002

Test Temperature (oC): 25 ± 1

Sample Type: Composite

Photo Period: 16 hours light, 8 hours dark

Outfall Name: 001

Dilution Water: synthetic

Receiving Water Name:

Begin Date: 4/25/2023

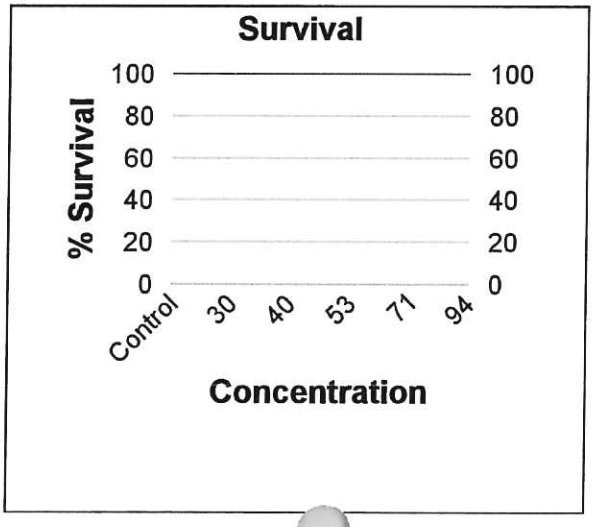
End Date: 5/3/2023

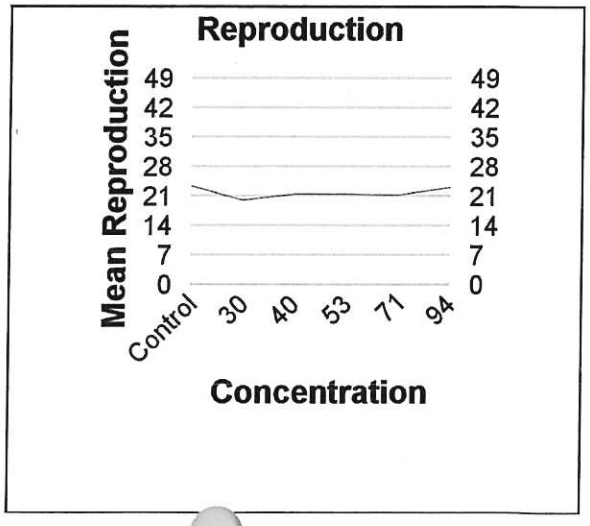
Test Start Time: 14:50 **Test End Time:** 09:40

SURVIVAL AND REPRODUCTION TABLE

FEMALE #	Control	30	%	40	%	53	%	71	%	94	%
1	22	21		28		23		22		28	
2	21	28		25		16		27		26	
3	18	22		27		20		12		28	
4	18	20		11		21		15		21	
5	29	21		19		22		26		22	
6	27	18		25		M		26		22	
7	28	13		19		24		18		17	
8	22	24		19		23		18		17	
9	26	20		17		17		24		27	
10	E	13		25		28		25		23	
Surv.Mean	23.4	20.0		21.5		21.5		21.3		23.1	
C.V%	17.8	22.8		24.9		16.9		24.5		17.8	
Total Mean	23.4	20.0		21.5		21.6		21.3		23.1	
Var	17.527	20.888		28.722		13.277		27.344		16.988	
Std.Dev.	4.186	4.57		5.359		3.643		5.229		4.121	
Max	29	28		28		28		27		28	
Min	18	13		11		16		12		17	

Concentration Response Relationships





BIO-AQUATIC TESTING, INC.

Survival and Reproduction

Control

Date	1	2	3	4	5	6	7	8	9	10
4/26	A	A	A	A	A	A	A	A	A	A
4/27	A	A	A	A	A	A	A	A	A	E
4/28	A	4	5	3	A	A	4	A	A	E
4/29	4	5	4	7	5	1	A	3	4	E
4/30	A	A	A	A	A	A	A	A	A	E
5/1	6	A	A	8	11	14	12	5	9	E
	10	9	9	18	16	15	16	8	13	
5/2	A	12	9	A	A	A	A	A	A	E
	10	21	18	18	16	15	16	8	13	
5/3	12	A	A	A	13	12	12	14	13	E
	22	21	18	18	29	27	28	22	26	

Mean: 23.40 **CV%** 17.80
Var. 17.53 **Max** 29
Std.Dev. 4.19 **Min** 18

30

Date	1	2	3	4	5	6	7	8	9	10
4/26	A	A	A	A	A	A	A	A	A	A
4/27	A	A	A	A	A	A	A	A	A	A
4/28	A	A	5	4	5	6	4	A	A	A
4/29	5	7	A	A	5	5	3	5	3	3
4/30	A	A	8	A	A	A	A	A	A	A
5/1	7	12	A	8	A	A	A	9	9	3
	12	19	13	12	10	11	7	14	12	6
5/2	A	A	A	A	A	7	A	A	A	A
	12	19	13	12	10	18	7	14	12	6
5/3	9	9	9	8	11	A	6	10	8	7
	21	28	22	20	21	18	13	24	20	13

Mean: 20.00 **CV%** 22.80
Var. 20.89 **Max** 28
Std.Dev. 4.57 **Min** 13

40

Date	1	2	3	4	5	6	7	8	9	10
4/26	A	A	A	A	A	A	A	A	A	A
4/27	A	A	A	A	A	A	A	A	A	A
4/28	A	A	6	A	A	5	4	A	4	A
4/29	8	A	A	2	7	A	A	A	A	8
4/30	A	8	A	7	A	A	A	7	A	A
5/1	10	6	9	A	A	12	10	5	A	8
	18	14	15	9	7	17	14	12	4	16
5/2	A	A	A	A	A	A	A	A	3	A
	18	14	15	9	7	17	14	12	7	16
5/3	10	11	12	2	12	8	5	7	10	9
	28	25	27	11	19	25	19	19	17	25

Mean: 21.50 **CV%** 24.90
Var. 28.72 **Max** 28
Std.Dev. 5.36 **Min** 11

53

Date	1	2	3	4	5	6	7	8	9	10
4/26	A	A	A	A	A	A	A	A	A	A
4/27	A	A	A	A	A	A	A	A	A	A
4/28	A	4	5	6	4	A	A	4	A	A
4/29	5	A	A	A	A	A	A	A	5	9
4/30	A	8	7	6	A	A	8	8	A	A
5/1	7	4	A	A	11	A	6	A	A	9
	12	16	12	12	15	0	14	12	5	18
5/2	A	A	A	A	A	A	A	A	A	A
	12	16	12	12	15	0	14	12	5	18
5/3	11	A	8	9	7	M	10	11	12	10
	23	16	20	21	22	0	24	23	17	28

Mean: 21.50 **CV%** 16.90
Var. 13.28 **Max** 28
Std.Dev. 3.64 **Min** 16

71

Date	1	2	3	4	5	6	7	8	9	10
4/26	A	A	A	A	A	A	A	A	A	A
4/27	A	A	A	A	A	A	A	A	A	A
4/28	A	4	2	A	A	A	A	A	3	A
4/29	1	A	A	A	A	A	A	A	A	11
4/30	7	8	6	5	7	8	6	5	9	A
5/1	14	15	A	A	2	2	12	4	A	14
	22	27	8	5	9	10	18	9	12	25
5/2	A	A	A	A	A	A	A	A	12	A
	22	27	8	5	9	10	18	9	24	25
5/3	A	A	4	10	17	16	A	9	A	A
	22	27	12	15	26	26	18	18	24	25

Mean: 21.30 **CV%** 24.50
Var. 27.34 **Max** 27
Std.Dev. 5.23 **Min** 12

94

Date	1	2	3	4	5	6	7	8	9	10
4/26	A	A	A	A	A	A	A	A	A	A
4/27	A	A	A	A	A	A	A	A	A	A
4/28	A	A	3	2	A	A	4	5	4	3
4/29	7	2	A	7	5	A	A	3	A	7
4/30	8	A	11	A	6	7	8	A	13	A
5/1	13	12	14	12	A	4	5	9	A	13
	28	14	28	21	11	11	17	17	17	23
5/2	A	A	A	A	11	A	A	A	A	A
	28	14	28	21	22	11	17	17	17	23
5/3	A	12	A	A	A	11	A	A	10	A
	28	26	28	21	22	22	17	17	27	23

Mean: 23.10 **CV%** 17.80
Var. 16.99 **Max** 28
Std.Dev. 4.12 **Min** 17

Chronic *Pimephales promelas*

Client: McGregor, City of McGregor WWTP

Lab ID: 84800

Permit Number: NPDES WQ0010219002

Test Temperature (oC): 25 ± 1

Outfall Name: 001 **Sample Type:** Composite

Photo Period: 16 Hours Light 8 Hours Dark

Receiving Water Name:

Test Start Time: 16:03 Test End Time: 10:24

Begin Date: 4/25/2023

End Date: 5/2/2023

SURVIVAL

Effluent Concentration		Number Of Alive 4/25	4/26	4/27	4/28	4/29	4/30	5/1	5/2	Avg% Surv.
Control	A	8	8	8	7	7	7	7	7	95.0%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	7	7	
30	A	8	8	8	7	7	7	7	7	95.0%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	8	8	7	7	7	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
40	A	8	8	8	8	8	8	8	8	97.5%
	B	8	8	8	8	8	8	8	8	
	C	8	8	8	8	8	7	7	7	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
53	A	8	8	8	8	8	8	8	8	97.5%
	B	8	8	8	8	7	7	7	7	
	C	8	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	

Chronic CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Client: McGregor, City of - McGregor WWTP Lab ID: 84800 Culture No.: B160410230

TEST INSTRUCTIONS: NETDMR

ORGANISMS ADDED: Date: 4-25-23 Time: 1450 Technician: DT

Photo Period 16hr Light/8hr dark

RANDOMIZATION: SC-10 11

Dilution: Control

	DATE/TIME/ TECHNICIAN	1	2	3	4	5	6	7	8	9	10
24Hr	4-26-23 1531 JC	A	—	—	—	—	—	—	—	—	—
48Hr	04-27-23 MW 1336	A	—	—	—	—	—	—	—	A	A/E*
72Hr	4-28-23 DT 1217	A	4	5	3	A	A	4	A	A	
96Hr	4/29/23 1350 RA	4	5	4	7	5	A1	A	3	4	
5 days	4-30-23 DT 1132	A	A	A	4	5	6	7	A	A	
6 days	5-1-23 MH 1430	6	4	3	4	6	8	5	5	9	
7 days	5-2-23 MH 0940	6	8	6	A	5	A	A	7	A	
8 days	5-3-23 SB 940	6	A	4	13	8	12	12	7	13	

*E- empty - MW

Dilution: 30 %

	1	2	3	4	5	6	7	8	9	10
24Hr	A	—	—	—	—	—	—	—	—	—
48Hr	A	—	—	—	—	—	—	—	—	A
72Hr	A	3	5	4	5	6	4	4	A	A
96Hr	5	4	A2	A	5	5	3	A1	3	3
5 days	4	6	6	5	A	A	A	5	6	A
6 days	3	6	A	3	A	6	A	4	3	3
7 days	4	A	A	A	A	1	A	A	A	A
8 days	5	9	9	8	11	A	6	10	8	7

Code: Cells in numbered columns indicate daily survival and reproduction: "A" means adult alive and no young produced, a number means adult alive and that number of young produced, "D" followed by a zero means adult dead and no young produced, "D" followed by a number means adult dead and that number of young produced. "E" indicates toss out due to experimenter error. Lined through spaces preceded by a number or letter represent the same number. Lined spaces without a preceding number or letter indicate unused or not applicable spaces.

Page 1

Chronic CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Client: **McGregor, City of - McGregor WWTP** Lab ID: **84800** Culture No.:

TEST INSTRUCTIONS: NETDMR

Dilution: 40 %

	1	2	3	4	5	6	7	8	9	10
24Hr	A	—	—	—	—	—	—	—	—	—
48Hr	A	—	—	—	—	—	—	—	—	A
72Hr	4	A	6	A	A	5	4	A	4	6
96Hr	4	A	A	A_2	7	A	—	—	—	A_2
5 days	A	8	6	7	A	8	6	7	A	5
6 days	10	6	3	A	A	4	4	5	A	3
7 days	4	A	A	A	A	A	A	A	3	1
8 days	6	11	12	A	12	8	5	7	10	8

Dilution: 53 %

	1	2	3	4	5	6	7	8	9	10
24Hr	A	—	—	—	—	—	—	—	—	—
48Hr	A	—	—	—	—	—	—	—	—	A
72Hr	3	4	5	6	4	A	A	4	A	4
96Hr	A_2	A	—	—	—	—	A_1	A	5	5
5 days	4	8	7	6	8	A	7	8	A	6
6 days	3	4	A	A	3	A	6	A	A	3
7 days	6	A	A	1	A	A	A	A	A	A
8 days	5	A	8	8	7	A	10	11	12	10

Code: Cells in numbered columns indicate daily survival and reproduction: "A" means adult alive and no young produced, a number means adult alive and that number of young produced, "D" followed by a zero means adult dead and no young produced, "D" followed by a number means adult dead and that number of young produced. "E" indicates toss out due to experimenter error. Lined through spaces preceded by a number or letter represent the same number. Lined spaces without a preceding number or letter indicate unused or not applicable spaces.

Chronic CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Client: **McGregor, City of - McGregor WWTP** Lab ID: **84800** Culture No.:

TEST INSTRUCTIONS: NETDMR

Dilution: 71 %

	1	2	3	4	5	6	7	8	9	10
24Hr	A	—	—	—	—	—	—	—	—	—
48Hr	A	—	—	—	—	—	—	—	—	A
72Hr	A	4	2/A	A	—	—	—	A	3	9
96Hr	A_1	A	—	—	—	—	—	—	—	A_2
5 days	7	8	6	5	7	8	6	5	9	7
6 days	14	15	A	A	2	2	12	4	A	7
7 days	A	A	2/A	A	A	A	A	A	12	A
8 days	A	12	2/A	10	7	6	14	9	A	12

Dilution: 94 %

	1	2	3	4	5	6	7	8	9	10
24Hr	A	—	—	—	—	—	—	—	—	—
48Hr	A	—	—	—	—	—	—	—	—	X
72Hr	4	A	3	2/A	A	A	4	5	4	3
96Hr	3	A_2	4	7	5	A	—	3	4	7
5 days	8	8	7	A	6	7	8	A	9	8
6 days	13	4	14	12	10	4	5	9	A	5
7 days	1	8	A	A	1	A	A	A	A	1
8 days	11	4	14	11	A	11	A	A	10	D

Code: Cells in numbered columns indicate daily survival and reproduction: "A" means adult alive and no young produced, a number means adult alive and that number of young produced, "D" followed by a zero means adult dead and no young produced, "D" followed by a number means adult dead and that number of young produced. "E" indicates toss out due to experimenter error. Lined through spaces preceded by a number or letter represent the same number. Lined spaces without a preceding number or letter indicate unused or not applicable spaces.

Chronic CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Client: **McGregor, City of - McGregor WWTP** Lab ID: **84800** Culture No.:

TEST INSTRUCTIONS: NETDMR

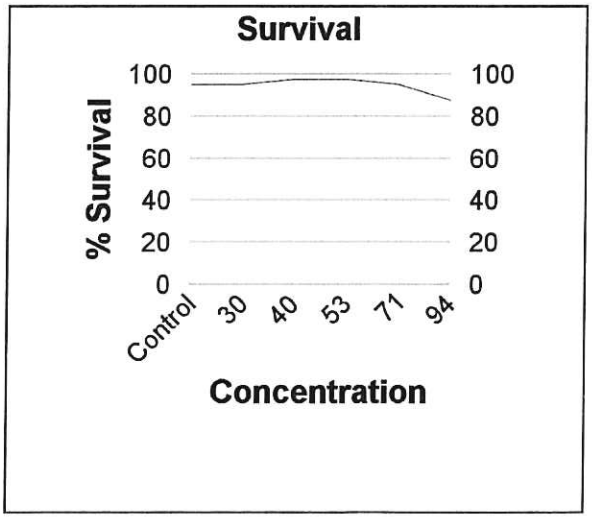
Test Temperatures

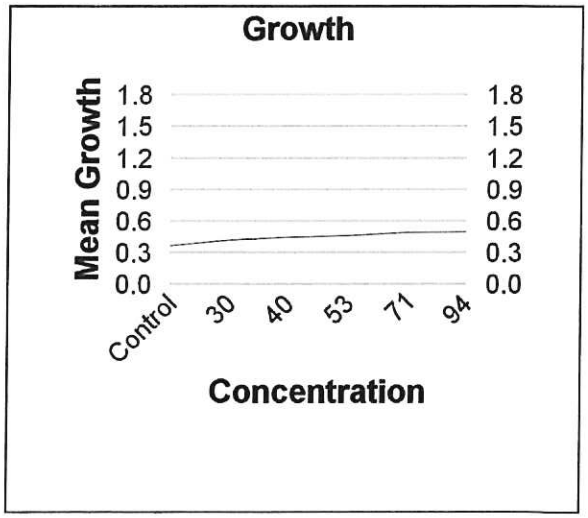
	0Hr	24Hr	48Hr	72Hr	96Hr	5 days	6 days	7 days
	new	old / new	old / new	old / new	old / new	old / new	old / new	old
Control	25.6	25.3 25.4	25.2 25.1	25.6 25.6	25.2 24.7	25.6 25.6	25.8 25.9	25.7
30	25.0			25.0		25.6		
40								
53								
71								
94								
TIME/DATE TECH	4-25-23 DT 1450	4-26-23 1531 JC	04-27-23 MW 1336	4-28-23 DT 1217	4/29/23 1390 RR	4-30-23 DT 1132	5-1-23 MH 1530	5-2-23 MH0940
IR GUN ID #	021	021	012	021	021	021	021	012

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

Effluent Concentration		Number Of Alive 4/25	4/26	4/27	4/28	4/29	4/30	5/1	5/2	Avg% Surv.
71	A	8	8	8	8	8	8	8	8	95.0%
	B	8	8	8	8	7	6	6	6	
	C	8	8	8	8	8	8	8	8	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
94	A	8	8	8	8	8	8	8	8	87.5%
	B	8	8	8	8	8	7	7	7	
	C	8	8	8	8	5	5	4	4	
	D	8	8	8	8	8	8	8	8	
	E	8	8	8	8	8	8	8	8	
	A									
	B									
	C									
	D									
	E									

Concentration Response Relationships





Chronic Pimephales promelas SURVIVAL Lab ID: **84800**

Client: **McGregor, City of** Facility **McGregor WWTP** Outfall:001 Sample Type: Composite

TEST INSTRUCTIONS: NETDMR

Culture No. : PZ-23-1153 Photo Period: 16hr light, 8hr dark **RANDOMIZATION:** SC-5 0

Dilution: Control / 30 / 40 / 53

DATE/TIME/ TECHNICIAN	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
0Hr 4/25/23 1603 2L	8	—	—	—	—	8	—	—	—	—	8	—	—	—	—	8	—	—	—	—
24Hr 4/26/23 RR 0920	8	—	—	—	—	8	—	—	—	—	8	—	—	—	—	8	—	—	—	—
48Hr 4/27/23 RR 1000	8	—	—	—	—	8	—	—	—	—	8	—	—	—	—	8	—	—	—	—
72Hr 4/28/23 0923 AR	7₁	8	—	—	—	7₀	8	—	—	—	8	—	—	—	—	8	—	—	—	—
96Hr 4-29-23 0912 AR	7	8	—	—	—	7	8	—	—	—	8	~~8~~	8	—	—	8	7₀	8	—	—
5 days 4-30-23 0859 AR	7	8	—	—	—	7	8	7₁	8	8	8	8	7	8	8	8	7	8	—	—
6 days 5-1-23 0837 AR	7	8	—	—	7₀	7	8	7	8	8	8	8	7	8	8	8	7	8	—	—
7 days 5/2/23 1027 2L	7	8	—	—	7	7	8	7	8	8	8	8	7	8	8	8	7	8	—	—

Dilution: 71 / 94

	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
0Hr	8	—	—	—	—	8	—	—	—	—										
24Hr	8	—	—	—	—	8	—	—	—	—										
48Hr	8	—	—	—	—	8	—	—	—	—										
72Hr	8	—	—	—	—	8	—	—	—	—										
96Hr	8	7₁	8	—	—	8	8	5₃	8	8										
5 days	8	6₁	8	—	—	8	7₁	5	8	8										
6 days	8	6	8	—	—	8	7	4₁	8	8										
7 days	8	6	8	—	—	8	7	4	8	8										

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable s

Chronic Pimephales promelas SURVIVAL Lab ID: **84800**

Client: **McGregor, City of** Facility **McGregor WWTP** Outfall:001 Sample Type Composite

TEST INSTRUCTIONS: NETDMR

Test Temperatures

	0Hr	24Hr		48Hr		72Hr		96Hr		5 days		6 days		7 days
	new	old	new	old	new	old	new	old	new	old	new	old	new	old
Control	25.1	25.2	24.0	25.2	24.8	24.7	24.3	24.2	24.1	25.1	24.8	25.2	24.8	25.0
30														
40														
53														
71														
94														
TIME/DATE TECH	4/25/23 1603 ZC	4/26/23 0920 RR		4/27/23 1000 RR		4/28/23 0923 AR		4/29/23 0912 AR		4/30/23 0859 AR		5/1/23 0837 AR		5/2/23 1024 ZC
IR GUN ID #	020	020		020		024		024		024		024		020

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

Chronic *Pimephales promelas*

Client: McGregor, City of McGregor WWTP **Lab ID:** 84800

Permit Number: WQ0010219002

Sample Type: Composite **Outfall Name:** 001

Receiving Water Name:

Synthetic

	ON	SN	Wt.	Avg.	SN Avg.
A	8	7	2.966	0.371	0.424
B	8	8	2.671	0.334	0.334
C	8	8	3.064	0.383	0.383
D	8	8	2.811	0.351	0.351
E	8	7	3.070	0.384	0.439

Mean	C.V. %
0.365	5.9

SN Mean	SN C.V. %
0.386	11.7

30

	ON	Wt.	Avg.
A	8	3.443	0.430
B	8	3.067	0.383
C	8	3.190	0.399
D	8	3.081	0.385
E	8	3.988	0.499

Mean	C.V. %
0.419	11.5

40

	ON	Wt.	Avg.
A	8	3.417	0.427
B	8	3.326	0.416
C	8	3.202	0.400
D	8	3.645	0.456
E	8	4.164	0.521

Mean	C.V. %
0.444	10.7

53

	ON	Wt.	Avg.
A	8	3.669	0.459
B	8	3.584	0.448
C	8	3.396	0.425
D	8	3.817	0.477
E	8	3.916	0.490

Mean	C.V. %
0.460	5.5

71

	ON	Wt.	Avg.
A	8	4.188	0.524
B	8	3.241	0.405
C	8	3.928	0.491
D	8	3.872	0.484
E	8	4.419	0.552

Mean	C.V. %
0.491	11.3

94

	ON	Wt.	Avg.
A	8	4.253	0.532
B	8	4.016	0.502
C	8	2.802	0.350
D	8	3.860	0.483
E	8	4.889	0.611

Mean	C.V. %
0.496	19.1

	ON	Wt.	Avg.
A			
B			
C			
D			
E			

Mean	C.V. %

	ON	Wt.	Avg.
A			
B			
C			
D			
E			

Mean	C.V. %

Note: ON stands for original number per replicate, while SN refers to the number surviving after test completion.

BIO-AQUATIC TESTING, INC. TOXICITY TEST

Chronic **Pimephales promelas** Lab ID: **84800**

Client: McGregor, City of - McGregor WWTP

Balance: Radwag BAL-007

Begin Date: 4/25/2023 End Date: 5/2/2023 Organism: Pimephales promelas

Analyst: RC

Weigh Date: 5-9-23

Date/Time placed in Oven: 5-2-23 / 1505

Date/Time removed from Oven: 5-3-23 / 1524

Control

	Qty.	Wt.
A	7	2.966
B	8	2.671
C	1	3.064
D	1	2.811
E	7	3.070

30 %

	Qty.	Wt.
A	7	3.143
B	8	3.067
C	7	3.190
D	8	3.081
E	8	3.988

40 %

	Qty.	Wt.
A	8	3.417
B	8	3.326
C	7	3.202
D	8	3.645
E	8	4.164

53 %

	Qty.	Wt.
A	8	3.669
B	7	3.584
C	8	3.396
D	1	3.817
E	1	3.916

71 %

	Qty.	Wt.
A	8	4.188
B	6	3.241
C	8	3.928
D	1	3.872
E	1	4.419

94 %

	Qty.	Wt.
A	8	4.253
B	7	4.016
C	4	2.802
D	8	3.860
E	8	4.889

	Qty.	Wt.
A		
B		
C		
D		
E		

	Qty.	Wt.
A		
B		
C		
D		
E		

	Qty.	Wt.
A		
B		
C		
D		
E		

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

APPENDIX A

STATISTICS SUMMARY

Both the lethal and sub-lethal endpoints were statistically calculated according to their respective EPA guidelines. The Chronic Freshwater organisms were calculated according to EPA-821-R-02-013, October 2002 Fourth Edition. The Chronic Marine and Estuarine organisms were calculated according to EPA-821-R-02-014, October 2002 Third Edition. The Acute Freshwater and Marine organisms were calculated according to EPA-821-R-02-012, October 2002 Fifth Edition. The fertilization organisms were calculated according to EPA-600-R-95-136 or EPA-600-R-12-022, dependent upon the species. Listed below are the basic principles of these guidelines. If you would like a copy of the raw statistical calculations for your test then please contact us.

The chronic and acute *Pimephales promelas* and *Menidia beryllina* survival data is analyzed using Shapiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts (parametric). If the data fails Shapiro Wilks Test or Bartlett's Test then Steels Many One Test (non-parametric) is used. The chronic *Pimephales promelas* and *Menidia beryllina* growth data is analyzed using Shapiro Wilks Test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test and Bartlett's Test then Steels Many One Test is used. Point estimation may also be used.

The chronic *Mysidopsis bahia* survival data is analyzed using Chi-square test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test or Bartlett's Test then Steels Many One Test is used. *Mysidopsis bahia* growth data is analyzed using Chi-square test and Bartlett's Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used. Point estimation may also be used.

The acute *Mysidopsis bahia* survival data is analyzed using Shapiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shipiro Wilks Test or Bartlett's Test then Steels Many One Test is used. Point estimation may also be used.

The chronic *Ceriodaphnia dubia* survival data are analyzed using the Fisher's Exact Test. The chronic *Ceriodaphnia dubia* reproduction and are analyzed using the Chi-square test and Bartlett Test. If the data passes one of these tests then the data is run through ANOVA and Dunnetts. If the data fails Chi-square test and Bartlett's Test then Steels Many One Test is used. Point estimation may also be used.

The acute *Daphnia pulex* and *Ceriodaphnia dubia* survival data is analyzed using Shapiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shapiro Wilks Test or Bartlett's Test then Steels Many One Test is used. Point estimation may also be used.

The fertilization data is analyzed using Shapiro Wilks Test and Bartlett's Test. If the data passes both tests then the data is run through ANOVA and Dunnetts. If the data fails Shapiro Wilks Test or Bartlett's Test then Steels Many One Test is used. Point estimation or TST methodology may also be used.

cerio repro
File: 84800.cdr Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	3.886	14.036	22.156	14.036	3.886
OBSERVED	5	11	20	20	2

Calculated Chi-Square goodness of fit test statistic = 4.6353
Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

cerio repro
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Bartlett's test for homogeneity of variance
Calculated B1 statistic = 1.79

Bartlett's test using average degrees of freedom
Calculated B2 statistic = 1.82
Based on average replicate size of 8.67

Table Chi-square value = 15.09 (alpha = 0.01, df = 5)
Table Chi-square value = 11.07 (alpha = 0.05, df = 5)

Data PASS B1 homogeneity test at 0.01 level. Continue analysis.
Data PASS B2 homogeneity test at 0.01 level. Continue analysis.

cerio repro
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ANOVA TABLE

SOURCE	DF	SS	MS	F
Between	5	77.573	15.515	0.739
Within (Error)	52	1091.944	20.999	
Total	57	1169.517		

Critical F value = 2.45 (0.05,5,40)
Since F < Critical F FAIL TO REJECT Ho: All equal

erio repro
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BONFERRONI t-TEST - TABLE 1 OF 2 Ho:Control<Treatment

ROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	con	.444	23.444		

2	30	000	20.000	6
3	40	21.500	21.500	0.924
4	53	21.556	21.556	0.874
5	71	21.300	21.300	1.018
6	94	23.100	23.100	0.164

Bonferroni t table value = 2.40 (1 Tailed Value, P=0.05, df=50,5)

cerio repro
File: 84800.cdr Transform: NO TRANSFORMATION

BONFERRONI t-TEST - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	con	9			
2	30	10	5.060	21.6	3.444
3	40	10	5.060	21.6	1.944
4	53	9	5.192	22.1	1.889
5	71	10	5.060	21.6	2.144
6	94	10	5.060	21.6	0.344

fathead growth
File: 84800.ppg Transform: NO TRANSFORMATION

Shapiro - Wilk's test for normality

D = 0.071

W = 0.953

Critical W (P = 0.05) (n = 30) = 0.927
Critical W (P = 0.01) (n = 30) = 0.900

Data PASS normality test at P=0.01 level. Continue analysis.

fathead growth
File: 84800.ppg Transform: NO TRANSFORMATION

Bartlett's test for homogeneity of variance
Calculated B1 statistic = 9.98

Table Chi-square value = 15.09 (alpha = 0.01, df = 5)
Table Chi-square value = 11.07 (alpha = 0.05, df = 5)

Data PASS B1 homogeneity test at 0.01 level. Continue analysis.

fathead growth
File: 84800.ppg Transform: NO TRANSFORMATION

ANOVA TABLE

SOURCE	DF	SS	MS	F
Between	5	0.060	0.012	4.060

Within (Error)	24	0.071	0.003
Total	29	0.131	

Critical F value = 2.62 (0.05,5,24)
Since F > Critical F REJECT Ho: All equal

fathead growth
File: 84800.ppg Transform: NO TRANSFORMATION

DUNNETT'S TEST - TABLE 1 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	con	0.365	0.365		
2	30	0.419	0.419	-1.585	
3	40	0.444	0.444	-2.305	
4	53	0.460	0.460	-2.764	
5	71	0.491	0.491	-3.675	
6	94	0.496	0.496	-3.803	

Dunnett table value = 2.36 (1 Tailed Value, P=0.05, df=24,5)

fathead growth
File: 84800.ppg Transform: NO TRANSFORMATION

DUNNETT'S TEST - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	con	5			
2	30	5	0.081	22.3	-0.055
3	40	5	0.081	22.3	-0.079
4	53	5	0.081	22.3	-0.095
5	71	5	0.081	22.3	-0.127
6	94	5	0.081	22.3	-0.131

Bio-Aquatic Testing, Inc.

FRESH WATER TEST SETUP FORM

Client: McGregor, City of

Permit WQ0010219002

Facility: McGregor WWTP

Lab Number 84800

Outfall Name: 001

Number of samples 3

Dilution Water: Synthetic Lab

Receiving Water Name:

Dechlorinate Sample: No

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Times	
			Begin Date	End Date	Start	End
1	04/25/23	11:37	04/23/23	04/24/23	08:00	07:00
2	04/27/23	14:25	04/25/23	04/26/23	08:00	07:00
3	05/01/23	10:00	04/27/23	04/28/23	08:00	07:00

Type of Test(s)

Ceriodaphnia dubia	Chronic
Pimephales promelas	Chronic

Dilution Water

Sample #	Hardness As mg/L $CaCO_3$	Alkalinity as mg/L $CaCO_3$
1	130	64
2	140	64
3	140	64

Start Sx #	1	Date:	4/25/2023
Renew Sx #	1	Date:	4/26/2023
Renew Sx #	1	Date:	4/27/2023
Renew Sx #	2	Date:	4/28/2023
Renew Sx #	2	Date:	4/29/2023
Renew Sx #	2	Date:	4/30/2023
Renew Sx #	3	Date:	5/1/2023

Test Start Date: 4/25/2023

Test End Date: 5/2/2023

Ceriodaphnia dubia Test Set Up: 10 Reps & 1 Organisms per Rep

Pimephales Test Set Up: 5 Reps & 8 Organism per Rep

Concentrations: 30 40 53 71 94 %

Test Chemistry on these dilutions: 30 40 53 71 94

Samples received by: ○ Express Delivery ○ UPS Next Day ○ via Air Cargo ○ DHL ◉ Federal Express ○ the Client ○ Bio-Aquatic personnel

Other:

BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

Client: McGregor, City of **Lab ID:** 84800

Facility: McGregor WWTP **Outfall:** 001

Dilution Water(s): Synthetic Lab **Test Date:** April 25, 2023

EFFLUENT PARAMETERS

Effluent Sample #	Received		Residual Cl_2 (mg/L)	DeChlor (ml/L)[1]	Ammonia (mg/L)	Analyst Initials	Temp. Received
	Date	Time					
1	4/25/23	11:37	<0.10	N/A	<0.25	JR	3.3
2	4/27/23	14:25	<0.10	N/A	<0.25	JP	3.8
3	5/1/23	10:00	<0.10	N/A	<0.25	DF	5.5

[1]**Dechlorination Reagent:** 0.025 N Sodium Thiosulfate

Effluent Sample #	pH	DO (mg/L)	Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	Conductivity (umhos/cm)	Analyst Initials
1	7.0	8.2	220	139	753	JR
2	7.4	9.1	190	132	701	JP
3	7.2	8.5	227	142	780	DF

DAILY RENEWAL CONDUCTIVITY**

Date		Sample #	Values are at Highest Dilution		Analyst
			Specific Conductivity as umhos/cm	Salinity (ppt)	
4/25	Lab H2O		462	0.3	GS
4/26	Lab H2O		363	0.2	IC
4/27	Lab H2O		416	0.2	MM/GS
4/28	Lab H2O		374	0.2	LH
4/29	Lab H2O		420	0.2	JC/IC
4/30	Lab H2O		471	0.3	AR/IC
5/1	Lab H2O		477	0.3	AR/IC
4/25	OUTFALL*	1	681	0.4	GS
4/26	OUTFALL*	1	659	0.4	IC
4/27	OUTFALL*	1	695	0.4	MM/GS
4/28	OUTFALL*	2	693	0.4	LH
4/29	OUTFALL*	2	708	0.4	JC/IC
4/30	OUTFALL*	2	737	0.4	AR/IC
5/1	OUTFALL*	3	820	0.4	AR/IC

**Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%

Analysis Methods: Chlorine: Hanna Colorimeter #HI711, Ammonia: Hanna Colorimeter #HI733, Hardness: Hanna Photometer #HI96735, Alkalinity: Hanna Colorimeter #HI775, pH, DO, Conductivity: Thermo Versa Star Benchtop Meter

BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

Chronic **Ceriodaphnia dubia**

Client: McGregor, City of **Lab ID:** 84800

Facility: McGregor WWTP **Dilution Water(s):** Synthetic Lab

Outfall: 001 **Test Begin Date:** April 25, 2023

NR indicates that the test is non-renewal.

					Concentration							
ANALYST	DATE	TIME	SX#	UNIT	Control	30	40	53	71	94		
GS	4/25	Start	1	pH	7.8	7.8	7.6	7.6	7.6	7.6		
		25 ± 1		DO (mg/L)	8.2	8.2	8.2	8.2	8.3	8.3		
IC	4/26	24 Hr	1	pH	8.1	8.0	8.0	7.8	7.8	7.8		
		25 ± 1		DO (mg/L)	7.9	7.9	7.9	7.9	7.9	7.9		
		Renew	1	pH	8.0	7.9	7.9	7.7	7.7	7.6		
				DO (mg/L)	8.1	8.1	8.1	8.3	8.3	8.4		
MM/GS	4/27	48 Hr	1	pH	8.7	8.4	8.1	8.1	8.1	8.1		
		25 ± 1		DO (mg/L)	8.4	8.4	8.2	8.2	8.2	8.2		
		Renew	1	pH	7.9	7.8	7.8	7.7	7.7	7.6		
				DO (mg/L)	8.1	8.1	8.2	8.4	8.4	8.6		
LH	4/28	72 Hr	1	pH	7.5	7.7	7.9	7.9	8.0	8.0		
		25 ± 1		DO (mg/L)	7.8	7.9	7.8	7.8	7.8	7.8		
		Renew	2	pH	8.1	8.1	7.8	7.8	7.6	7.6		
				DO (mg/L)	7.9	7.9	8.0	8.0	8.1	8.1		
JC/IC	4/29	96 Hr	2	pH	8.0	7.9	7.9	7.9	7.9	8.1		
		25 ± 1		DO (mg/L)	8.2	8.2	8.2	8.2	8.2	8.2		
		Renew	2	pH	8.0	7.8	7.8	7.7	7.7	7.6		
				DO (mg/L)	8.4	8.3	8.3	8.4	8.4	8.4		
AR/IC	4/30	120 Hr	2	pH	8.1	8.0	8.0	8.1	8.1	8.2		
		25 ± 1		DO (mg/L)	8.0	8.0	8.0	8.0	8.0	8.1		
		Renew	2	pH	7.9	7.9	7.9	7.8	7.8	7.6		
				DO (mg/L)	8.2	8.2	8.2	8.2	8.2	8.4		
IC	5/1	144 Hr	2	pH	7.2	7.3	7.3	7.6	7.6	7.7		
		25 ± 1		DO (mg/L)	7.6	7.7	7.7	7.9	7.9	8.0		
		Renew	3	pH	7.9	7.8	7.8	7.6	7.6	7.5		
				DO (mg/L)	7.9	7.9	7.9	8.0	8.0	8.1		
AR/IC	5/2	168 Hr	3	pH	7.7	7.7	7.7	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	7.7	7.7	7.7	7.6	7.6	7.6		

BIO-AQUATIC TESTING, INC.

pH, Dissolved Oxygen

Chronic **Pimephales promelas**

Client: McGregor, City of **Lab Number:** 84800

Facility: McGregor WWTP **Dilution Water(s):** Synthetic Lab

Outfall: 001 **Test Begin Date:** April 25, 2023

NR indicates that the test is non-renewal.

					Concentration							
ANALYST	DATE	TIME	SX#	UNIT	Control	30	40	53	71	94		
GS	4/25	Start	1	pH	7.8	7.8	7.6	7.6	7.6	7.6		
		25 ± 1		DO (mg/L)	8.2	8.2	8.2	8.2	8.3	8.3		
IC	4/26	24 Hr	1	pH	7.9	7.9	7.9	7.7	7.7	7.8		
		25 ± 1		DO (mg/L)	8.3	8.3	8.3	8.2	8.2	8.1		
		Renew	1	pH	8.0	7.9	7.9	7.7	7.7	7.6		
				DO (mg/L)	8.1	8.1	8.1	8.3	8.3	8.4		
MM/GS	4/27	48 Hr	1	pH	7.8	7.6	7.6	7.6	7.6	7.7		
		25 ± 1		DO (mg/L)	8.4	8.3	8.2	8.1	8.0	7.9		
		Renew	1	pH	7.9	7.8	7.8	7.7	7.7	7.6		
				DO (mg/L)	8.1	8.1	8.2	8.4	8.4	8.6		
LH	4/28	72 Hr	1	pH	7.8	7.8	7.8	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	8.0	8.0	7.8	7.8	7.8	7.8		
		Renew	2	pH	8.1	8.1	7.8	7.8	7.6	7.6		
				DO (mg/L)	7.9	7.9	8.0	8.0	8.1	8.1		
JC/IC	4/29	96 Hr	2	pH	7.8	7.8	7.8	7.8	7.8	8.0		
		25 ± 1		DO (mg/L)	8.3	8.3	8.2	8.2	8.2	8..1		
		Renew	2	pH	8.0	7.8	7.8	7.7	7.7	7.6		
				DO (mg/L)	8.4	8.3	8.3	8.4	8.4	8.4		
AR/IC	4/30	120 Hr	2	pH	7.8	7.7	7.7	7.8	7.8	7.9		
		25 ± 1		DO (mg/L)	8.5	8.3	8.3	8.1	8.1	8.1		
		Renew	2	pH	7.9	7.9	7.9	7.8	7.8	7.6		
				DO (mg/L)	8.2	8.2	8.2	8.2	8.2	8.4		
IC	5/1	144 Hr	2	pH	7.6	7.6	7.6	7.7	7.7	7.8		
		25 ± 1		DO (mg/L)	8.3	8.1	8.1	8.0	8.0	8.0		
		Renew	3	pH	7.9	7.8	7.8	7.6	7.6	7.5		
				DO (mg/L)	7.9	7.9	7.9	8.0	8.0	8.1		
AR/IC	5/2	168 Hr	3	pH	7.0	7.2	7.2	7.5	7.5	7.6		
		25 ± 1		DO (mg/L)	8.0	7.9	7.9	7.8	7.8	7.7		

Appendix B

Ceriodaphnia dubia

BIO-AQUATIC TESTING, INC.

Carrollton, TX

REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

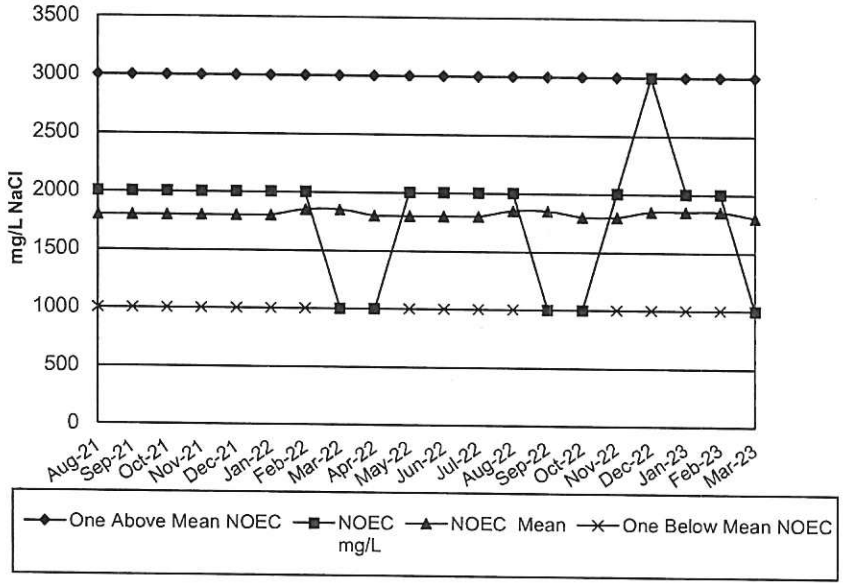
CHRONIC REFERENCE TOXICANT TEST RESULTS

DILUTION WATER:	Standard Synthetic Freshwater						
CHEMICAL:	Sodium Chloride						
DURATION:	3-Brood Chronic						
TEST NUMBER:	337						
PROJECT NUMBER:	86585 DOC						
START DATE:	3/28/2023						
START TIME:	14:58						
TOTAL NUMBER EXPOSED:	10 organisms per concentration						
CONCENTRATIONS (mg/L):	CON	250	500	1000	2000	3000	4000
NUMBER DEAD PER CONCENTRATION:	0	0	0	0	7	10	10
TEST METHODS:	As listed in EPA-821-R-02-013						
STATISTICAL METHODS:	SURVIVAL: Fisher's Exact Test REPRODUCTION: ANOVA-Dunnetts						

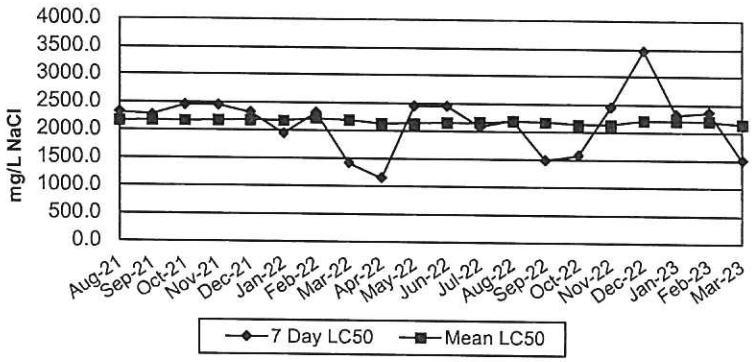
NOEC FOR SURVIVAL:	1000	mg/L
LOEC FOR SURVIVAL:	2000	mg/L
NOEC FOR REPRODUCTION:	1000	mg/L
LOEC FOR REPRODUCTION:	2000	mg/L

PMSD: 20.6

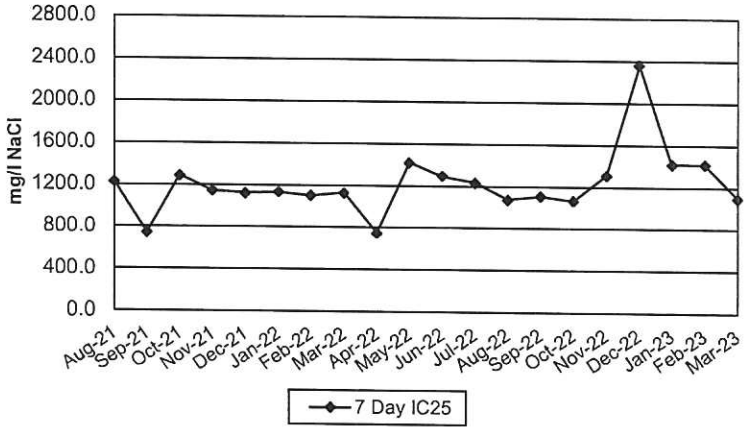
Ceriodaphnia Chronic Survival Control Chart



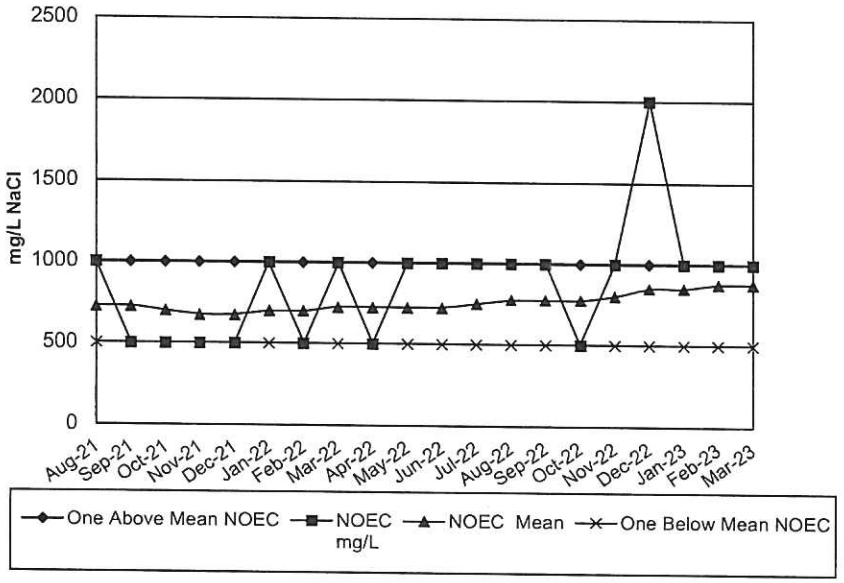
Ceriodaphnia 7-Day LC50



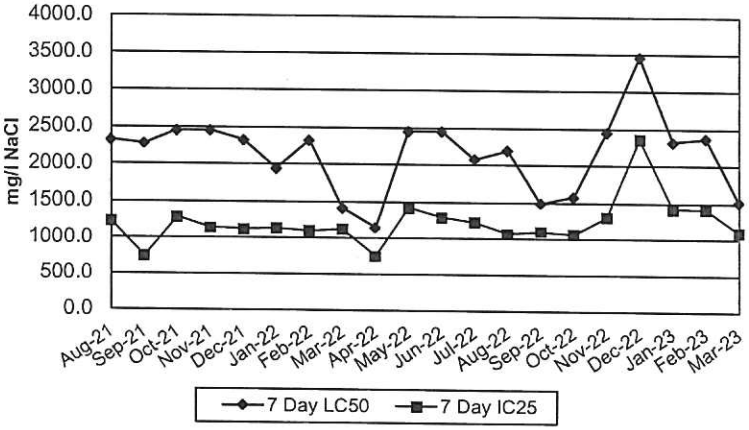
Ceriodaphnia 7-Day IC25



Ceriodaphnia Chronic Reproduction Control Chart



Ceriodaphnia 7-Day LC50 & IC25



Appendix B

Pimephales promelas

BIO-AQUATIC TESTING, INC.

Carrollton, TX

REFERENCE TOXICANTS

Bio-Aquatic Testing conducts reference toxicant testing monthly for organisms cultured in-house. For studies requiring purchased organisms, reference toxicant testing is performed simultaneously. Reference toxicant testing validates data and measures organism consistency. Only reagent grade chemicals are used of the following choices: sodium laurel sulfate (SLS), copper sulfate, copper chloride, potassium chloride, and sodium chloride. Organism responses are tracked with control charts for each reference toxicant/organism combination. The data are examined for sensitivity trends and to determine if results are within EPA described limits.

CHRONIC REFERENCE TOXICANT TEST RESULTS

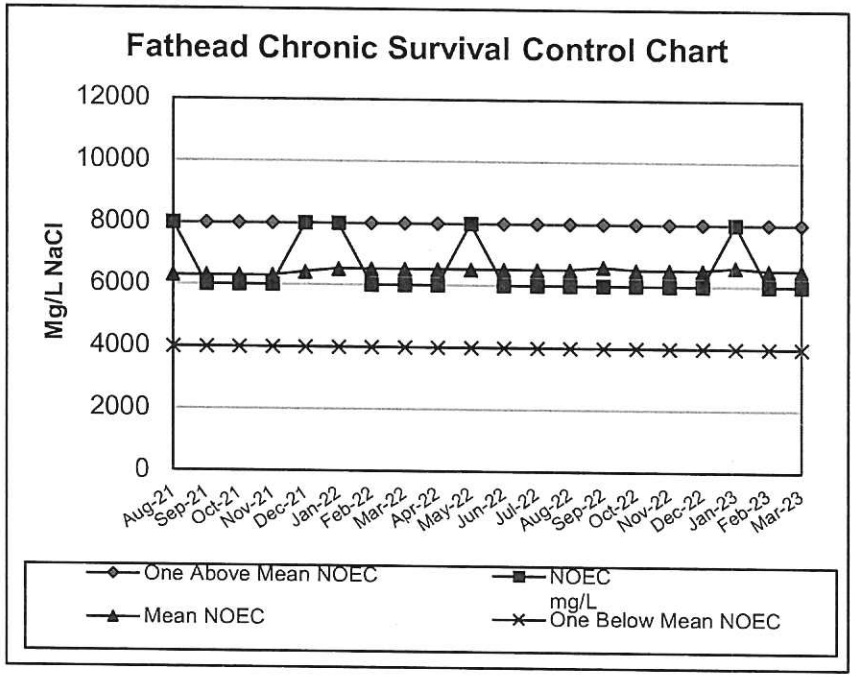
DILUTION WATER:	Standard Synthetic Freshwater
CHEMICAL:	Sodium Chloride
DURATION:	7 Days
TEST NUMBER:	377
PROJECT NUMBER:	86594
START DATE:	3/28/2023
START TIME:	14:24
TOTAL NUMBER EXPOSED:	40 organisms per concentration

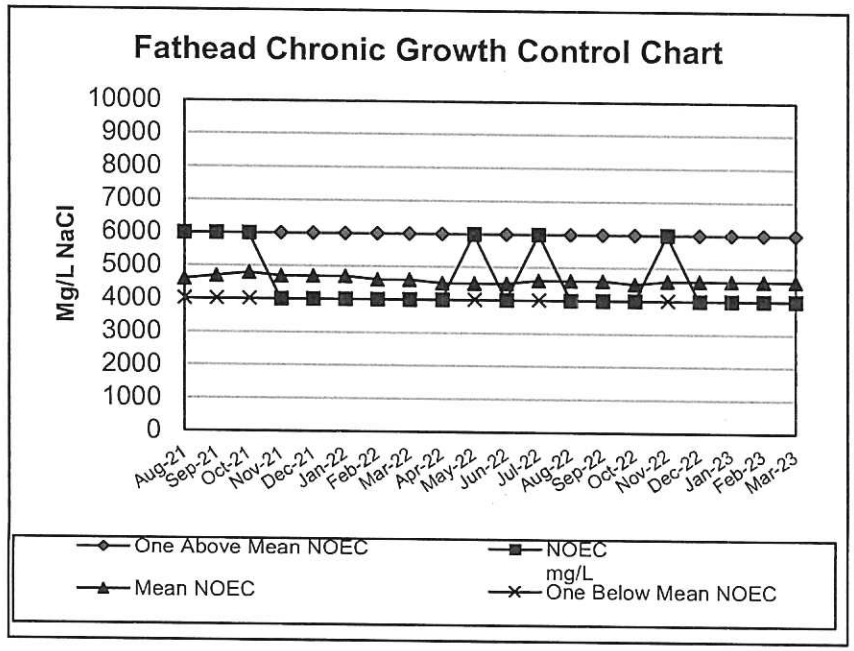
CONCENTRATIONS (mg/L):	CON	2000	4000	6000	8000	10000	12000
NUMBER DEAD PER CONCENTRATION:	0	0	3	1	17	38	40

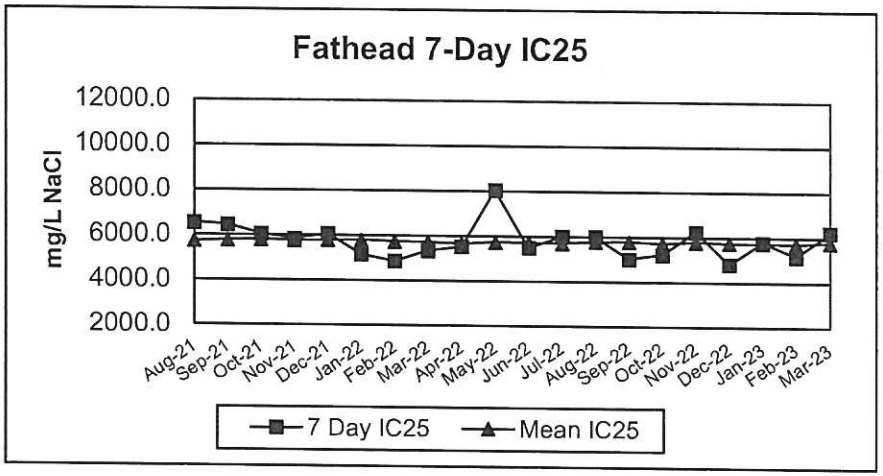
TEST METHODS:	As listed in EPA-821-R-02-013
STATISTICAL METHODS:	SURVIVAL: Steel's Many-One Rank Test GROWTH: ANOVA-Dunnetts Test

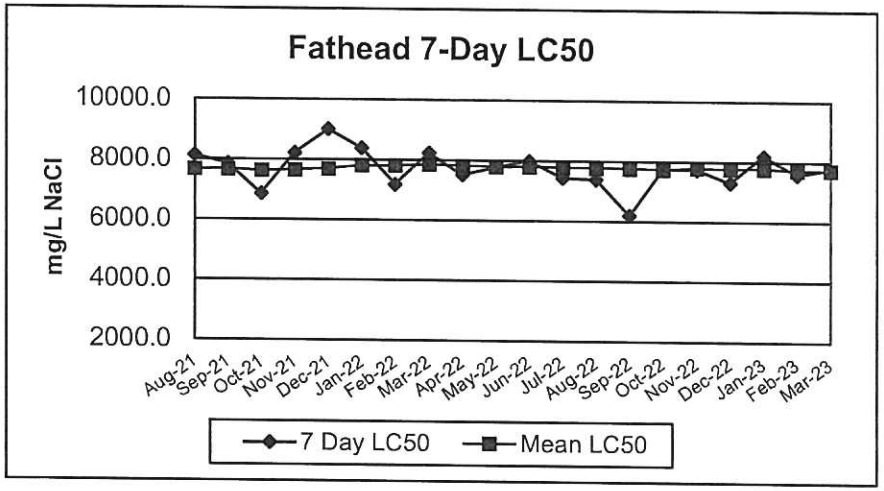
NOEC FOR SURVIVAL:	6000	mg/L
LOEC FOR SURVIVAL:	8000	mg/L
NOEC FOR GROWTH:	4000	mg/L
LOEC FOR GROWTH:	6000	mg/L

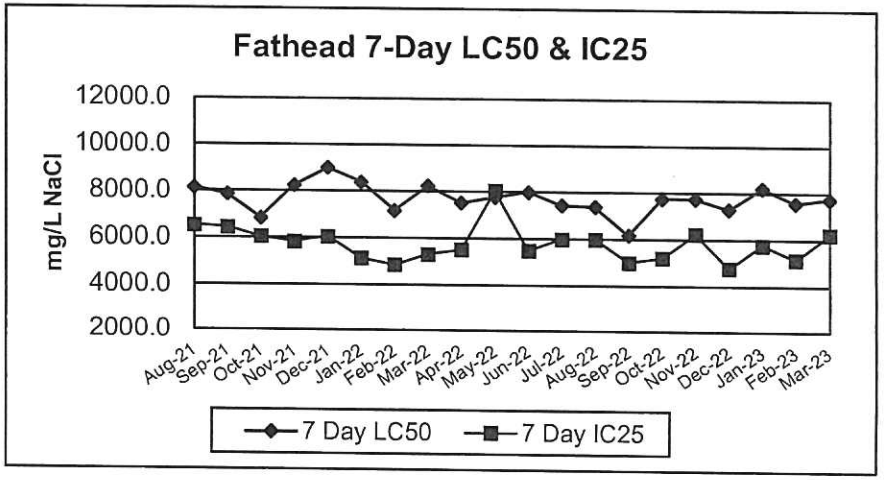
PMSD: 17.0


Fathead Chronic Survival Control Chart
Mg/L NaCl
12000
10000
8000
6000
4000
2000
0
Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23
One Above Mean NOEC
NOEC
Mean NOEC
One Below Mean NOEC
mg/L


Fathead Chronic Growth Control Chart
Mg/L NaCl
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23
One Above Mean NOEC
NOEC
Mean NOEC
One Below Mean NOEC
mg/L


Fathead 7-Day IC25
mg/L NaCl
12000.0
10000.0
8000.0
6000.0
4000.0
2000.0
Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23
7 Day IC25
Mean IC25


Fathead 7-Day LC50
mg/L NaCl
10000.0
8000.0
6000.0
4000.0
2000.0
Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23
7 Day LC50
Mean LC50


Fathead 7-Day LC50 & IC25
mg/L NaCl
12000.0
10000.0
8000.0
6000.0
4000.0
2000.0
Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23
7 Day LC50
7 Day IC25

APPENDIX C

LITERATURE REFERENCES

U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fifth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-012.

U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents and Receiving Water To Marine And Estuarine Organisms (Third Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-014.

U.S.E.P.A., 2002. Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Water To Freshwater Organisms (Fourth Edition) U.S. Environmental Protection Agency, Office of Water, Washington D.C., EPA-821-R-02-013.

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CHAIN-OF-CUSTODY SHEETS

Appendix D

Report Date: 05/26/2023 Revision 0

32 of 39

Bio-Aquatic Lab ID: 84800

BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ Bio Only: No Sample Left

Lab Id : 84800

Please Review & Complete Sections A, B, C, & D.

Sample No: 84800 –

Revision 2 Effective Date 9/25/2017

Check Sample No. : ____ First, ____ Second, or ____ Third.

P.O. No:

Client: McGregor, City of

Facility: McGregor WWTP

Permit No: WQ0010219002

Outfall: 001

Client Contact: ROBERT MYERS

Client Phone: 254-379-0561

A. REVIEW SCHEDULED TEST(s):

Chronic	Ceriodaphnia dubia
Chronic	Pimephales promelas

To Ship the 1st Sample on: 4/17/2023

Concentration: 30 40 53 71 94UN 94AD

(For TX) Setup separate 24hr Acute Test? No

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species					Saltwater Species	
C. dubia (water flea)	*D. pulex (water flea)*	*D. magna (water flea)*	*P. promelas (minnow)*	*Selenastrum (green algae)*	*M. beryllina (minnow)*	*Mysidopsis (shrimp)*
☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour

Notes: 2nd Quarter (CR) and Retest 3 of 3 for 1Qtr failure -CH
Has Effective WET Limit for Both Species Lethal - Effective 10/30/2017
Gate Combo 1214

C.

	Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date From	Sample Date To	Sample Time (military) From	Sample Time (military) To	Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
1	001	E	4-23-23	4-24-23	0800	0700	C	J. Ensey	1
2									
3									

D.

	Relinquished By:	Date	Time	Received By:	Date	Time
1	J. Ensey	4-24-23	~~13~~ 1500			
2						
3				Jim Rea	4-25-23	1137

Bio-Aquatic Sample Login

BAT sample personnel: ● Yes ○ No

Dechlorinate Sample: ○ Yes ◉ No

Dilution Water: ○ Receiving Stream ◉ Synthetic Lab

Date: 4-25-23 Time: 1137 By: JR Temperature: 3.3 (C) IR#: 00

Chlorine: <0.1 mg/l	Ammonia: <0.25 mg/l	Int. Sal\Cond: 753 ppt/uS	Adj. Salinity ppt
pH: 7.0	Hardness: 220 mg/l (LR)	Other	
DO: 8.2 mg/l	Alkalinity: 139 mg/l (OK)	Condition: Good	

BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ Bio Only: No Sample Left

Lab Id : 84800

Please Review & Complete Sections A, B, C, & D.

Sample No: 84800 –

Revision 2 Effective Date 9/25/2017

Check Sample No. : ____ First, ____ Second, or ____ Third.

P.O. No:

Client: McGregor, City of

Facility: McGregor WWTP

Permit No: WQ0010219002

Outfall: 001

Client Contact: ROBERT MYERS

Client Phone: 254-379-0561

A. REVIEW SCHEDULED TEST(s):

Chronic	Ceriodaphnia dubia
Chronic	Pimephales promelas

Concentration: 30 40 53 71 94UN 94AD

To Ship the 1st Sample on: 4/17/2023

(For TX) Setup separate 24hr Acute Test? No

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species					Saltwater Species	
C. dubia (water flea)	*D. pulex (water flea)*	*D. magna (water flea)*	*P. promelas (minnow)*	*Selenastrum (green algae)*	*M. beryllina (minnow)*	*Mysidopsis (shrimp)*
☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chron. ☐96 Hour ☐48 Hour ☐24 Hour

Notes: 2nd Quarter (CR) and Retest 3 of 3 for 1Qtr failure -CH
Has Effective WET Limit for Both Species Lethal - Effective 10/30/2017
Gate Combo 1214

C.

	Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date From	Sample Date To	Sample Time (military) From	Sample Time (military) To	Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
1	001	E	4-25-23	4-26-23	0900	0900	C	J. Embry	1
2									
3									

D.

	Relinquished By:	Date	Time	Received By:	Date	Time
1	J. Embry	4-26-23	1500	Jay Payne	4/27/23	1425
2						
3						

Bio-Aquatic Sample Login

BAT sample personnel: ● Yes ○ No

Dechlorinate Sample: ○ Yes ◉ No

Dilution Water: ○ Receiving Stream ◉ Synthetic Lab

Date: 4/27/23	Time: 1425	By: JP	Temperature: 3.8 (C)	IR#: 002			
Chlorine: <0.1 mg/l	Ammonia: <0.25 mg/l	Int. Sal\Cond: 701 ppt/uS	Adj. Salinity ppt				
pH: 7.4	Hardness: 190 mg/l (LR)	Other					
DO: 9.1 mg/l	Alkalinity: 132 mg/l (OK)	Condition: good					

BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ Bio Only: No Sample Left

Lab Id : 84800

Please Review & Complete Sections A, B, C, & D.

Sample No: 84800 – Revision 2 Effective Date 9/25/2017

Check Sample No. : ____ First, ____ Second, or ____ Third.

P.O. No:

Client: McGregor, City of

Facility: McGregor WWTP

Permit No: WQ0010219002

Outfall: 001

Client Contact: ROBERT MYERS

Client Phone: 254-379-0561

A. REVIEW SCHEDULED TEST(s):

Chronic	Ceriodaphnia dubia
Chronic	Pimephales promelas

Concentration: 30 40 53 71 94UN 94AD

To Ship the 1st Sample on: 4/17/2023

(For TX) Setup separate 24hr Acute Test? No

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species					Saltwater Species	
C. dubia (water flea)	*D. pulex (water flea)*	*D. magna (water flea)*	*P. promelas (minnow)*	*Selenastrum (green algae)*	*M. beryllina (minnow)*	*Mysidopsis (shrimp)*
☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour	☐Chronic ☐96 Hour ☐48 Hour ☐24 Hour

Notes: 2nd Quarter (CR) and Retest 3 of 3 for 1Qtr failure -CH
Has Effective WET Limit for Both Species Lethal - Effective 10/30/2017
Gate Combo 1214

C.

	Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date From	Sample Date To	Sample Time (military) From	Sample Time (military) To	Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
1	001	E	4-27-23	4-28-23	0800	0700	C	J. Emsy	1
2									
3									

D.

	Relinquished By:	Date	Time	Received By:	Date	Time
1	J. Emsy	4-28-23	1500		5-1-23	1000
2						
3						

Bio-Aquatic Sample Login

BAT sample personnel: ● Yes ○ No

Dechlorinate Sample: ○ Yes ◉ No

Dilution Water: ○ Receiving Stream ◉ Synthetic Lab

Date: 5-1	Time: 1000	By:	Temperature: 5.5 (C)	IR#: 002	
Chlorine: 0.1 mg/l	Ammonia: 0.25 mg/l	Int. Sal\Cond: 780 ppt/uS	Adj. Salinity ppt		
pH: 7.2	Hardness: 227 mg/l (LR)	Other			
DO: 8.5 mg/l	Alkalinity: 142 mg/l (OK)	Condition: OKM			

REGULATORY AGENCY TABLES

Appendix E

Table 1 (Sheet 1 of 4)

BIOMONITORING REPORT

Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST

Permittee: McGregor, City of - McGregor WWTP
Permit No.: WQ0010219002
Outfall No.: 001

		Date/Time		Date/Time
Dates and times Composites were collected:	FROM:	4/23/2023 @08:00	TO:	4/24/2023@ 07:00
	FROM:	4/25/2023 @08:00	TO:	4/26/2023@ 07:00
	FROM:	4/27/2023 @08:00	TO:	4/28/2023@ 07:00

Test Initiation: Time: 14:50 Date: 4/25/2023

Dilution Water Used: [ ] Receiving Water [X] Synthetic Dilution Water

NUMBER OF YOUNG PRODUCED PER ADULT AT TEST TERMINATION

	EFFLUENT CONCENTRATION (%)					
REPLICATE	0%	30 %	40 %	53 %	71 %	94 %
A	22	21	28	23	22	28
B	21	28	25	16	27	26
C	18	22	27	20	12	28
D	18	20	11	21	15	21
E	29	21	19	22	26	22
F	27	18	25	M	26	22
G	28	13	19	24	18	17
H	22	24	19	23	18	17
I	26	20	17	17	24	27
J	E	13	25	28	25	23
Surv. MEAN	23.4	20.0	21.5	21.5	21.3	23.1
Total MEAN	23.4	20.0	21.5	21.6	21.3	23.1
CV % [1]	17.8	22.8	24.9	16.9	24.5	17.8
PMSD	Acceptable Range 47 or Less					21.6 %

[1] Coefficient of Variation = (standard deviation/mean) x 100) Calculations are based on young of the surviving females. Males are designated (M), and dead females are designated (D) along with the number of neonates released prior to death. (E) anomalous value, spilled cup, or technician error.

Table 1 (Sheet 2 of 4)

BIOMONITORING REPORT

Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST

Permittee: McGregor, City of - McGregor WWTP

Permit No.: WQ0010219002

Outfall No.: 001

PERCENT SURVIVAL

	EFFLUENT CONCENTRATION (%)					
TIme of Reading	0%	30 %	40 %	53 %	71 %	94 %
24 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
48 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
7-DAY	100.0	100.0	100.0	100.0	100.0	100.0

1. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST (with Bonferroni adjustment as appropriate for Sub-Lethality)

Is the mean number of young produced per adult significantly less (p=0.05) than the number of young per adult in the control for the % effluent corresponding to significant non-lethal effects?

CRITICAL DILUTION (94): _____YES _____X_____NO

*If you report NO, enter a '0' on the DMR form for Parameter **TWP3B**, other wise enter a '1'. This parameter is also referred to as the 7-DAY Ceriodaphnia Sub-Lethal Pass/Fail.*

2. FISHER'S EXACT TEST (as appropriate for Lethality)

Is the mean survival at test end significantly less (p=0.05) than the control's survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (94): _____YES _____X_____NO

*If you report NO, enter a '0' on the DMR form for Parameter **TLP3B**, other wise enter a '1'. This parameter is also referred to as the 7-DAY Ceriodaphnia Lethal Pass/Fail.*

3. Enter the percent effluent corresponding to each NOEC/LOEC below:

a. NOEC Survival = 94 % Effluent (Parameter TOP3B)

b. LOEC Survival = Q* % Effluent (Parameter TXP3B)

c. NOEC Reproduction = 94 % Effluent (Parameter TPP3B)

d. LOEC Reproduction = Q* % Effluent (Parameter TYP3B)

Q* refers to a value that is not calculable

Table 1 (Sheet 3 of 4)
BIOMONITORING REPORT

Pimephales promelas SURVIVAL AND GROWTH TEST

Permittee: McGregor, City of - McGregor WWTP
Permit No.: WQ0010219002
Outfall No.: 001

		Date/Time		Date/Time
Dates and times Composites were collected:	FROM:	4/23/2023 @08:00	TO:	4/24/2023@ 07:00
	FROM:	4/25/2023 @08:00	TO:	4/26/2023@ 07:00
	FROM:	4/27/2023 @08:00	TO:	4/28/2023@ 07:00

Test Initiation: Time: 16:03 Date: 4/25/2023

Dilution Water Used: [ ] Receiving Water [X] Synthetic Dilution Water

DATA TABLE FOR GROWTH OF *Pimephales promelas*

Effluent Concentration	Average Dry Weight in milligrams (mg) per replicate					Mean Dry Weight (mg)	CV % [1]
	A	B	C	D	E		
0%	0.371	0.334	0.383	0.351	0.384	0.365	5.9
30 %	0.430	0.383	0.399	0.385	0.499	0.419	11.5
40 %	0.427	0.416	0.400	0.456	0.521	0.444	10.7
53 %	0.459	0.448	0.425	0.477	0.490	0.460	5.5
71 %	0.524	0.405	0.491	0.484	0.552	0.491	11.3
94 %	0.532	0.502	0.350	0.483	0.611	0.496	19.1
PMSD	Acceptable Range 30 or Less					22.3 %	

[1] Coefficient of Variation = (standard deviation/mean) x 100) ?= cannot be calculated due to 100% mortality or lab exception

DATA TABLE FOR SURVIVAL OF *Pimephales promelas*

Effluent Concentration	Percent Survival per replicate					Average % Survival			CV % [1]
	A	B	C	D	E	24 Hours	48 Hours	7-Day	
0%	87.5	100	100	100	87.5	100	100	95	7.2
30 %	87.5	100	87.5	100	100	100	100	95	7.2
40 %	100	100	87.5	100	100	100	100	97.5	5.7
53 %	100	87.5	100	100	100	100	100	97.5	5.7
71 %	100	75	100	100	100	100	100	95	11.8
94 %	100	87.5	50	100	100	100	100	87.5	24.7

Table 1 (Sheet 4 of 4)

BIOMONITORING REPORT

Pimephales promelas SURVIVAL AND GROWTH TEST

Permittee: McGregor, City of - McGregor WWTP

Permit No.: WQ0010219002

Outfall No.: 001

1. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST (with Bonferroni adjustment as appropriate for Sub-Lethality)

Is the mean dry weight at 7 days significantly less (p=0.05) than the control's mean dry weight for the % effluent corresponding to significant non-lethal effects?

CRITICAL DILUTION (94): _____ YES ___X___ NO

*If you report NO, enter a '0' on the DMR form for Parameter **TWP6C**, other wise enter a '1'. This parameter is also referred to as the 7-DAY Pimephales Sub-Lethal Pass/Fail.*

2. DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST OR WILCOXON RANK SUM TEST (as appropriate for Lethality) Is the survival at 7 days significantly less (p=0.05) than the control's survival for % effluent corresponding to lethality?

CRITICAL DILUTION (94): _____ YES ___X___ NO

*If you report NO, enter a '0' on the DMR form for Parameter **TLP6C**, other wise enter a '1'. This parameter is also referred to as the 7-DAY Pimephales Lethal Pass/Fail.*

3. Enter the percent effluent corresponding to each NOEC/LOEC below:

			For DMR Form:
a.	NOEC Survival =	94 % Effluent	(Parameter TOP6C)
b.	LOEC Survival =	Q* % Effluent	(Parameter TXP6C)
c.	NOEC Growth =	94 % Effluent	(Parameter TPP6C)
d.	LOEC Growth =	Q* % Effluent	(Parameter TYP6C)

Q* refers to a value that is not calculable

COPY
Walker Partners 11/8/2023

Walker Partners
engineers | surveyors

6504 Bridge Point Parkway., Suite 200
Austin, Texas 78730

November 8th, 2023

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

Attn: Brittany M. Lee

Re: City of McGregor Wastewater Treatment Plant Discharge Permit Renewal WQ0010219002 (EPA ID:TX0023914)
City of McGregor- CN600755631, RN101609220

Dear Ms. Lee:

Following up on the delayed chemical results stated in transmittal letter which was submitted with the City of McGregor WWTP Permit Application, on August 24th, 2023. The City of McGregor has now received majority of the results for their chemical analysis. Additionally, the "Laboratory Accreditation" was signed by the City Manager, Kevin Evans. The changes to the Technical Report are as follows.

1. The Laboratory Accreditation Page 20, Section 14 has been signed by Kevin Evans, City Manager.
2. Pages 11 to 12, Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent now includes results from laboratory chemical analysis.
3. Pages 53 to 65, Domestic Worksheet 4.0, Pollutant Analysis Requirements now includes results from laboratory chemical analysis. We are awaiting the remainder of the results for the required pesticides listed below and will be delivered once received.

4,4'-DDD	Alpha- BHC	Chlorodane	Endosulfan Sulfate	Heptachlor Epoxide
4,4'-DDE	Beta- BHC	Deildrin	Endrin	Methoxychlor
4,4'-DDT	Delta- BHC	Endosulfan I (alpha)	Endrin Aldehyde	Mirex
Aldrin	Gamma- BHC	Endosulfan II (Beta)	Heptachlor	Toxaphene

4. Attachment M- Pollutant Analysis of Treated Effluent Testing Report, now includes the results for Domestic Technical Report 1.0, Section 7, *Table 1.0(2)- Pollutant Analysis for Wastewater Treatment Facilities* and Domestic Worksheet 4.0, *Table 4.0(1) Toxics Analysis*, *Table 4.0(2)A- Metals, Cyanide, Phenols*, *Table 4.0(2)B- Volatile Compounds*, *Table 4.0(2)C- Acid Compounds*, and *Table 4.0(2)D- Base/Neutral Compounds*.

Sincerely,

Joseph W Jenkins

Hand Delivered 11/8/2023

RECEIVED
NOV 08 2023
Water Quality Applications Team

Mr. Joseph Jenkins, P.E.
Senior Project Manager

Email
Cc: Mr. Kevin Evans. City Manager, City of McGregor, 302 S. Madison, McGregor, Texas 76657
Project File

Mathew Rotman

From: Kevin Evans <kevans@mcgregor-texas.com>
Sent: Thursday, November 2, 2023 3:37 PM
To: Joseph Jenkins; Mathew Rotman
Cc: Chad Saylors; Robert Myers
Subject: FW: City of McGregor 10219-002

???

From: Brittany Lee <brittany.lee@tceq.texas.gov>
Sent: Thursday, November 2, 2023 2:51 PM
To: Kevin Evans <kevans@mcgregor-texas.com>; rmeyers@mcgregor-texas.com
Subject: City of McGregor 10219-002

Good Afternoon,

I'm currently conducting the Water Quality Standards review for the City of McGregor and realized the pollutant analysis is missing. I also realize there was an instream monitoring requirement instated in the previous permit. The monitoring requirement requires that the data be submitted to the Water Quality Standards Implementation Team. Has the study been conducted? Was this information submitted? If so, can you please send the information to me at your earliest convenience. If it has not been done, this requirement will be placed in the permit again. Please also submit the pollutant analysis at your earliest convenience. I can place the permit review on hold, however only for a 30 day maximum. Due to this, please submit any information or an update by November 13th, 2023. If you have any questions, please feel free to contact me. I'd be glad to assist.

Thank you,
Brittany M. Lee

Brittany M. Lee
Texas Commission on Environmental Quality
Water Quality Division - Matrix
Aquatic Scientist
Office Ph. 210-403-4048

note if this information has or has not changed since the last permit action.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

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).

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

Table 1.0(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	1	Grab	8.31.23 / 10:00
Total Suspended Solids, mg/l		3	1	Grab	9.1.23 / 09:30
Ammonia Nitrogen, mg/l		<0.10	1	Grab	8.31.23 / 19:20
Nitrate Nitrogen, mg/l		51.6	1	Grab	8.31.23 / 13:42
Total Kjeldahl Nitrogen, mg/l		0.58	1	Grab	9.6.23 / 18:50
Sulfate, mg/l		66.6	1	Grab	8.31.23 / 13:42
Chloride, mg/l		127	1	Grab	8.31.23 / 13:42
Total Phosphorus, mg/l		7.27	1	Grab	9.6.23 / 17:13
pH, standard units		4.4	1	Grab	8.30.23 / 14:49
Dissolved Oxygen*, mg/l		6.9	1	Grab	8.30.23 / 14:49
Chlorine Residual, mg/l		N/A	N/A	N/A	N/A
E.coli (CFU/100ml) freshwater		<1	1	Grab	8.30.23 / 16:40

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Entercocci (CFU/100ml) saltwater		N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l		610	1	Grab	9.1.23 / 09:00
Electrical Conductivity, µmohs/cm, †		900	1	Grab	9.8.23 / 09:00
Oil & Grease, mg/l		<5.0	1	Grab	9.5.23 / 08:30
Alkalinity ($CaCO_3$)*, mg/l		<10	1	Grab	8.31.23 / 14:30

*TPDES permits only

†TLAP 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 60)

Facility Operator Name: Robert Meyers

Facility Operator's License Classification and Level: B

Facility Operator's License Number: WW0062376

Section 9. Sewage Sludge Management and Disposal (Instructions

Section 14. Laboratory Accreditation (Instructions Page 64)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, 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:
  - periodically inspected by the TCEQ; or
  - located in another state and is accredited or inspected by that state; or
  - 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: Kevin Evans

Title: City Manager

Signature: Kevin R. Evans

Date: 11-1-23

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES 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 for minor amendments without renewal

Section 1. Toxic Pollutants (Instructions Page 87)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab ☒ Composite ☐

Date and time sample(s) collected: 8.30.2023 / 14:49

Table 4.0(1) - Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile		<14.3	1	50
Aldrin				0.01
Aluminum		0.0125	1	2.5
Anthracene		<1.50	1	10
Antimony		0.7	1	5
Arsenic		1.0	1	0.5
Barium		0.0477	1	3
Benzene		<0.460	1	10
Benzidine		<4.80	1	50

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Benzo(a)anthracene		<0.173	1	5
Benzo(a)pyrene		<0.364	1	5
Bis(2-chloroethyl)ether		<2.16	1	10
Bis(2-ethylhexyl)phthalate		<0.277	1	10
Bromodichloromethane		12.7	1	10
Bromoform		1.40	1	10
Cadmium		<0.5	1	1
Carbon Tetrachloride		<0.896	1	2
Carbaryl		<1.85	1	5
Chlordane*				0.2
Chlorobenzene		<0.530	1	10
Chlorodibromomethane		7.83	1	10
Chloroform		10.4	1	10
Chlorpyrifos		<0.0496	1	0.05
Chromium (Total)		<0.5	1	3
Chromium (Tri) **(*1)**		3.0	1	N/A
Chromium (Hex)		<3.0	1	3
Copper		13.7	1	2
Chrysene		<0.222	1	5
p-Chloro-m-Cresol		<1.57	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
4,6-Dinitro-o-Cresol		<1.44	1	50
p-Cresol		<2.62	1	10
Cyanide (*2)		<2.33	1	10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D		<0.0539	1	0.7
Demeton (O and S)		<0.0496	1	0.20
Diazinon		<0.0496	1	0.5/0.1
1,2-Dibromoethane		<0.999	1	10
m-Dichlorobenzene		<1.62	1	10
o-Dichlorobenzene		<1.44	1	10
p-Dichlorobenzene		<1.55	1	10
3,3'-Dichlorobenzidine		<0.341	1	5
1,2-Dichloroethane		<0.590	1	10
1,1-Dichloroethylene		<0.738	1	10
Dichloromethane		<1.73	1	20
1,2-Dichloropropane		<0.667	1	10
1,3-Dichloropropene		<1.27	1	10
Dicofol		<0.0500	1	1

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Dieldrin				0.02
2,4-Dimethylphenol		<0.649	1	10
Di-n-Butyl Phthalate		<0.252	1	10
Diuron		0.210	1	0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene		<0.411	1	10
Fluoride		<1.00	1	500
Guthion		<0.0496	1	0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene		<0.307	1	5
Hexachlorobutadiene		<0.238	1	10
Hexachlorocyclohexane (alpha)		ND	1	0.05
Hexachlorocyclohexane (beta)		ND	1	0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene		<4.58	1	10
Hexachloroethane		<0.526	1	20

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Hexachlorophene		<0.808	1	10
Lead		<0.5	1	0.5
Malathion		<0.0496	1	0.1
Mercury		0.00139	1	0.005
Methoxychlor				2
Methyl Ethyl Ketone		<8.28	1	50
Mirex				0.02
Nickel		3.3	1	2
Nitrate-Nitrogen		51.6	1	100
Nitrobenzene		<1.66	1	10
N-Nitrosodiethylamine		<1.75	1	20
N-Nitroso-di-n-Butylamine		<1.49	1	20
Nonylphenol		<10.0	1	333
Parathion (ethyl)		<0.0496	1	0.1
Pentachlorobenzene		<1.07	1	20
Pentachlorophenol		<0.234	1	5
Phenanthrene		<1.42	1	10
Polychlorinated Biphenyls (PCB's) (*3)		<0.100	1	0.2
Pyridine		<2.64	1	20
Selenium		<0.5	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Silver		<0.5	1	0.5
1,2,4,5-Tetrachlorobenzene		<1.32	1	20
1,1,2,2-Tetrachloroethane		<0.470	1	10
Tetrachloroethylene		<0.801	1	10
Thallium		<0.5	1	0.5
Toluene		<0.475	1	10
Toxaphene				0.3
2,4,5-TP (Silvex)		<0.0422	1	0.3
Tributyltin (see instructions for explanation)	Not Required			0.01
1,1,1-Trichloroethane		<1.69	1	10
1,1,2-Trichloroethane		<0.511	1	10
Trichloroethylene		<0.791	1	10
2,4,5-Trichlorophenol		<2.00	1	50
TTHM (Total Trihalomethanes)		32.3	1	10
Vinyl Chloride		<0.638	1	10
Zinc		166.3	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: 8.30.2023 / 14:49

Table 4.0(2)A – Metals, Cyanide, Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony		0.7	1	5
Arsenic		1.0	1	0.5
Beryllium		<0.5	1	0.5
Cadmium		<0.5	1	1
Chromium (Total)		<0.5	1	3
Chromium (Hex)		<3.0	1	3
Chromium (Tri) (*1)		3.0	1	N/A
Copper		13.7	1	2
Lead		<0.5	1	0.5
Mercury		0.00139	1	0.005
Nickel		3.3	1	2
Selenium		<0.5	1	5
Silver		<0.5	1	0.5
Thallium		<0.5	1	0.5
Zinc		166.3	1	5
Cyanide (*2)		<2.33	1	10
Phenols, Total		<5.80	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		<11.1	1	50
Acrylonitrile		<14.3	1	50
Benzene		<0.460	1	10
Bromoform		1.40	1	10
Carbon Tetrachloride		<0.896	1	2
Chlorobenzene		<0.530	1	10
Chlorodibromomethane		7.83	1	10
Chloroethane		<1.98	1	50
2-Chloroethylvinyl Ether		<2.52	1	10
Chloroform		10.4	1	10
Dichlorobromomethane [Bromodichloromethane]		12.7	1	10
1,1-Dichloroethane		<0.635	1	10
1,2-Dichloroethane		<0.590	1	10
1,1-Dichloroethylene		<0.738	1	10
1,2-Dichloropropane		<0.667	1	10
1,3-Dichloropropylene [1,3-Dichloropropene]		<1.27	1	10
1,2-Trans-Dichloroethylene		<0.368	1	10
Ethylbenzene		<0.411	1	10
Methyl Bromide		<1.42	1	50
Methyl Chloride		<2.04	1	50
Methylene Chloride		<1.73	1	20
1,1,2,2-Tetrachloroethane		<0.470	1	10
Tetrachloroethylene		<0.801	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene		<0.475	1	10
1,1,1-Trichloroethane		<1.69	1	10
1,1,2-Trichloroethane		<0.511	1	10
Trichloroethylene		<0.791	1	10
Vinyl Chloride		<0.638	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		<0.649	1	10
2,4-Dichlorophenol		<0.314	1	10
2,4-Dimethylphenol		<0.649	1	10
4,6-Dinitro-o-Cresol		<1.44	1	50
2,4-Dinitrophenol		<0.499	1	50
2-Nitrophenol		<1.67	1	20
4-Nitrophenol		<4.91	1	50
P-Chloro-m-Cresol		<1.57	1	10
Pentalchlorophenol		<0.234	1	5
Phenol		<0.423	1	10
2,4,6-Trichlorophenol		<1.42	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		<1.39	1	10
Acenaphthylene		<1.41	1	10
Anthracene		<1.50	1	10
Benzidine		<4.80	1	50
Benzo(a)Anthracene		<0.173	1	5
Benzo(a)Pyrene		<0.364	1	5
3,4-Benzofluoranthene		<2.04	1	10
Benzo(ghi)Perylene		<2.68	1	20
Benzo(k)Fluoranthene		<0.375	1	5
Bis(2-Chloroethoxy)Methane		<1.76	1	10
Bis(2-Chloroethyl)Ether		<2.16	1	10
Bis(2-Chloroisopropyl)Ether		<1.79	1	10
Bis(2-Ethylhexyl)Phthalate		<0.277	1	10
4-Bromophenyl Phenyl Ether		<2.56	1	10
Butyl benzyl Phthalate		<0.337	1	10
2-Chloronaphthalene		<0.462	1	10
4-Chlorophenyl phenyl ether		<1.28	1	10
Chrysene		<0.222	1	5
Dibenzo(a,h)Anthracene		<0.246	1	5
1,2-(o)Dichlorobenzene		<1.62	1	10
1,3-(m)Dichlorobenzene		<1.44	1	10
1,4-(p)Dichlorobenzene		<1.55	1	10
3,3-Dichlorobenzidine		<0.341	1	5
Diethyl Phthalate		<1.59	1	10
Dimethyl Phthalate		<0.299	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Di-n-Butyl Phthalate		<0.252	1	10
2,4-Dinitrotoluene		<1.31	1	10
2,6-Dinitrotoluene		<1.61	1	10
Di-n-Octyl Phthalate		<0.373	1	10
1,2-Diphenylhydrazine (as Azo-benzene)		<1.50	1	20
Fluoranthene		<1.59	1	10
Fluorene		<1.63	1	10
Hexachlorobenzene		<0.307	1	5
Hexachlorobutadiene		<0.238	1	10
Hexachlorocyclo-pentadiene		<4.58	1	10
Hexachloroethane		<0.526	1	20
Indeno(1,2,3-cd)pyrene		<2.29	1	5
Isophorone		<1.64	1	10
Naphthalene		<0.542	1	10
Nitrobenzene		<1.66	1	10
N-Nitrosodimethylamine		<2.02	1	50
N-Nitrosodi-n-Propylamine		<2.88	1	20
N-Nitrosodiphenylamine		<1.81	1	20
Phenanthrene		<1.42	1	10
Pyrene		<0.178	1	10
1,2,4-Trichlorobenzene		<1.61	1	10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242		<0.0125	1	0.2
PCB-1254		<0.0078	1	0.2
PCB-1221		<0.0125	1	0.2
PCB-1232		<0.0125	1	0.2

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1248		<0.0125	1	0.2
PCB-1260		<0.0078	1	0.2
PCB-1016		<0.0125	1	0.2
Toxaphene				0.3

* 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.

ATTACHMENT M

POLLUTANT ANALYSIS OF TREATED EFFLUENT TESTING REPORT

BIO CHEM LAB, INC. **PHONE: 254.829.8001** **FAX: 254.829.8013**
4751 TOKIO RD. WEST, TX 76691

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF McGREGOR
P O BOX 192
McGREGOR, TX 76657
CLIENT CONTACT: ROBERT MYERS 254-379-0561 / RMYERS@MCGREGOR-TEXAS.COM

AUGUST 2023 - MCGREGOR	
REPORT ID:	MCG-092723-01
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	10.1.23
PERMIT RENEWAL	
AMENDED REPORT	

FIELD DATA / SAMPLE DESCRIPTION

		CONTACT CHAMBER
Collection Point		
Date/ Time Collected		8.30.23 / 14:49
Date/ Time Received by Lab		8.30.23 / 16:16
Laboratory Sample ID		20421-23
Sampling Description/Procedure		BCL.SOP.119
Sample Matrix		Aqueous-NPW
Sample Type		Grab
Collector		ST
pH, SU	SM 4500-H+B	4.4
Dissolved Oxygen, mg/L	SM 4500 O G	6.9
Temperature, C		29.6
Date / Time Analyzed	(Field Analysis)	8.30.23 / 15:03
Analyst Initials		ST

PARAMETER / UNIT / METHOD

$CBOD_5$, mg/L	SM 5210 B	**2.**
Reporting Limit, mg/L		2.
Dilution Factor		1
Date / Time Analyzed		8.31.23 / 10:00
Analyst Initials		LD / ARJ

TSS, mg/L	SM 2540 D	**3.**
Reporting Limit, mg/L		2.
Dilution Factor		1
Date / Time Analyzed		9.1.23 / 09:30
Analyst Initials		MH

Sulfate, mg/L	EPA 300.0	**66.6**
Reporting Limit, mg/L		5.00
Dilution Factor		10
Date / Time Analyzed		8.31.23 / 13:42
Analyst Initials		AJ

Chloride, mg/L	EPA 300.0	**127.**
Reporting Limit, mg/L		1.00
Dilution Factor		10
Date / Time Analyzed		8.31.23 / 13:42
Analyst Initials		AJ

Total Dissolved Solids, mg/L	SM 2540 C	**610.**
Reporting Limit, mg/L		20.0
Dilution Factor		1
Date / Time Analyzed		9.1.23 / 09:00
Analyst Initials		ARJ

Electrical Conductivity, µmhos @ 25°C	SM 2510 B	**900.**
Reporting Limit, µmhos @ 25°C		10.
Dilution Factor		4
Date Analyzed		9.8.23 / 09:00
Analyst Initials		ARJ

Total Alkalinity, mg/L	SM 2320 B	**< 10**
Reporting Limit, mg/L		10.
Dilution Factor		1
Date / Time Analyzed		8.31.23 / 14:30
Analyst Initials		ARJ

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FIELD DATA / SAMPLE DESCRIPTION

	CONTACT CHAMBER
Collection Point	
Date/ Time Collected	8.30.23 / 14:49
Date/ Time Received by Lab	8.30.23 / 16:16
Laboratory Sample ID	20421-23
Sampling Description/Procedure	BCL.SOP.119
Sample Matrix	Aqueous-NPW
Sample Type	Grab
Collector	ST

PARAMETER / UNIT / METHOD

Fluoride, mg/L	EPA 300.0	**< 1.00**
Reporting Limit, mg/L		1.00
Dilution Factor		10
Date / Time Analyzed		8.31.23 / 13:42
Analyst Initials		AJ

Hexavalent Chromium, mg/L	SM 3500 Cr-B	**< 0.003**
Trivalent Chromium, mg/L	Calc.	**0.003**
Reporting Limit, mg/L		0.003
Dilution Factor		1
Date / Time Analyzed		9.22.23 / 14:50
Analyst Initials		LD / JLJ

NH_3N, mg/L	SM 4500 NH_3 B, D	**< 0.10**
Reporting Limit, mg/L		0.10
Dilution Factor		1
Date / Time Analyzed		8.31.23 / 19:20
Analyst Initials		SV

TKN, mg/L	SM4500 N_{org} B	**0.58**
Reporting Limit, mg/L		0.50
Dilution Factor		1
Date / Time Analyzed		9.6.23 / 18:50
Analyst Initials		SV

Total Phosphorus, mg/L	SM 4500-P E	**7.27**
Reporting Limit, mg/L		0.25
Dilution Factor		5
Date / Time Analyzed		9.6.23 / 17:13
Analyst Initials		LD / JLJ

Nitrate as N, mg/L	EPA 300.0	**51.6**
Reporting Limit, mg/L		0.01
Dilution Factor		1
Date / Time Analyzed		8.31.23 / 13:42
Analyst Initials		AJ

Oil & Grease mg/L	EPA 1664	**< 5.0**
Reporting Limit, mg/L		5.0
Dilution Factor		1
Date / Time Analyzed		9.5.23 / 08:30
Analyst Initials		CD / BF

E. coli, MPN/100ml	SM 9223	**< 1**
Reporting Limit, MPN/100ml		1.
Dilution Factor		1
Date / Time Analyzed		8.30.23 / 16:40
Analyst Initials		MH

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REPORT DATE:	10.1.23
PERMIT RENEWAL	

FIELD DATA / SAMPLE DESCRIPTION

	CONTACT CHAMBER
Collection Point	
Date/ Time Collected	8.30.23 / 14:49
Date/ Time Received by Lab	8.30.23 / 16:16
Laboratory Sample ID	20421-23
Sampling Description/Procedure	BCL.SOP.119
Sample Matrix	Aqueous-NPW
Sample Type	Grab
Collector	ST

TOTAL METALS ANALYSIS

PARAMETER	METHOD	REPORTING LIMIT	DILUTION FACTOR	RESULT (mg/L)	DATE/TIME ANALYZED	ANALYST	QUALIFIER
Aluminum	EPA-200.8	0.0050	1	**0.0125**	9.19.23 / 17:55	JLJ	
Antimony	EPA-200.8	0.0005	1	**0.0007**	9.19.23 / 17:55	JLJ	
Arsenic	EPA-200.8	0.0005	1	**0.0010**	9.19.23 / 17:55	JLJ	
Barium	EPA-200.8	0.0005	1	**0.0477**	9.19.23 / 17:55	JLJ	
Beryllium	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Cadmium	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Chromium	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Copper	EPA-200.8	0.0005	1	**0.0137**	9.19.23 / 17:55	JLJ	
Lead	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Magnesium	EPA-200.8	0.05	1	**10.9**	9.19.23 / 17:55	JLJ	
Nickel	EPA-200.8	0.0005	1	**0.0033**	9.19.23 / 17:55	JLJ	
Selenium	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Silver	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Thallium	EPA-200.8	0.0005	1	**< 0.0005**	9.19.23 / 17:55	JLJ	
Zinc	EPA-200.8	0.0050	1	**0.1663**	9.19.23 / 17:55	JLJ	

Date Digested	9.5.23
Time Digested	11:45
Analyst Initials	JLJ

ANALYTICAL NOTES, INTERPRETATIONS, METHOD DEVIATIONS OR ENVIRONMENTAL CONDITIONS :

AMENDMENT MADE ON 10.1.23: pH, DISSOLVED OXYGEN & TEMPERATURE FIELD READINGS ADDED TO REPORT ON PAGE 1.

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.

BIO CHEM LAB, INC. **PHONE: 254.829.8001** **FAX: 254.829.8013**
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REPORT ID:	MCG-092723-01
LAB CONTACT:	SHAY OCHOA
REPORT DATE:	10.1.23

QC SUMMARY

BIOCHEMICAL OXYGEN DEMAND — SM 5210 B

SETUP DATE	SETUP ID	BATCH ID	
8.31.23	B-083123-28	B-083123-28-02	
DUPLICATE	RESULT 1	RESULT 2	% DEV
20377-23	131	114	6.9
20398-23	164	176	3.5
BOD-BLANK	CBOD-BLANK	LCS -GGA	LCS-CGGA
0.15	0.13	215	214

TOTAL SUSPENDED SOLIDS — SM 2540 D

SETUP DATE	SETUP ID	BATCH ID	
9.1.23	T-090123-01	T-090123-01-03	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
20564-23	95	97.5	1.3
BLANK, mg/L	<2	LCS % REC	97.1

SULFATE — EPA 300.0

SETUP DATE	SEQUENCE ID		
8.31.23-9.1.23	IC-083123-26		
SAMPLE ID	RESULT 1	RESULT 2	RPD
20503-23	152.9	151.9	0.7
SPIKE ID:	RESULT 1	RESULT 2	% REC
20503-23	152.9	256.4	103.5
IPCS-1 % REC:	105.7	IPCS-2 % REC:	108.6
LCS % REC:	107.9	LCSD % REC:	106.9
BLANK, mg/L:	<0.50		

CHLORIDE — EPA 300.0

SETUP DATE	SEQUENCE ID		
8.31.23-9.1.23	IC-083123-26		
SAMPLE ID	RESULT 1	RESULT 2	RPD
20503-23	244.5	244.3	0.1
SPIKE ID:	RESULT 1	RESULT 2	% REC
20503-23	244.5	346.2	101.7
IPCS-1 % REC:	103.7	IPCS-2 % REC:	106.1
LCS % REC:	105.0	LCSD % REC:	104.8
BLANK, mg/L:	<0.50		

TOTAL DISSOLVED SOLIDS — SM 2540 C

DATE	SETUP ID	BATCH ID	
9.1.23	DS-090123-01	DS-090123-01-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
20287-23	696	676	1.5
SPIKE ID:	RESULT 1	RESULT 2	% REC
20503-23 Q3	1,618	1,910	58.4
BLANK, mg/L	<20	LCS, %REC	97.5

ELECTRICAL CONDUCTIVITY — SM 2510 B

SETUP DATE	SETUP ID		
9.8.23	EC-090823-01		
SAMPLE ID	RESULT 1	RESULT 2	% DEV
20874-23	2200	2100	2.3
LCS % REC	99.1	LCSD % REC	99.1
LRB, µmhos	< 5	LOQ % REC	80.0

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REPORT DATE:	10.1.23

QC SUMMARY

TOTAL ALKALINITY — SM 2320 B

SETUP DATE	SETUP ID	BATCH ID	
8.31.23	ALK-083123-07	ALK-083123-07-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
20334-23	240.8	258.5	3.5
SPIKE ID:	RESULT 1	RESULT 2	% REC
20159-23	318.8	409.3	90.5
LRB-BLANK	LCS, %REC	LCSD, %REC	LOQ, % REC
<5	98.5	97.5	----

FLUORIDE — EPA 300.0

SETUP DATE	SEQUENCE ID		
8.31.23-9.1.23	IC-083123-26		
SAMPLE ID	RESULT 1	RESULT 2	RPD
20503-23	3.7	3.7	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
20503-23	3.7	117.7	114.0
IPCS-1 % REC:	108.1	IPCS-2 % REC:	106.8
LCS % REC:	107.1	LCSD % REC:	107.4
BLANK, mg/L:	<0.10		

HEXAVALENT CHROMIUM — SM 3500 Cr-B

SETUP DATE	SETUP ID	BATCH ID	
9.22.23	HC-092223-03	HC-092223-03-01	
SAMPLE ID:	RESULT 1	RESULT 2	% DEV
12487	0.048	0.044	4.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
21711-23	0.00	0.025	100.0
21711-23 Q3	0.00	0.019	**76.0**
BLANK, mg/L	LCS, %REC	LCSD, %REC	
<0.003	95.9	88.68	

NH3N — SM 4500 NH_3-B,D

SETUP DATE:	SETUP ID:	BATCH ID:	
08.31.23	N-083123-25	N-083123-25-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV:
20462-23	33.8	33.7	0.1
20471-23	39.9	40.1	0.3
SPIKE ID:	RESULT 1:	RESULT 2:	% REC:
20423-23	0.05	1.89	92.0
20423-23	0.05	1.94	94.5
BLANK, mg/L:	LCS % REC:	LCSD % REC:	
< 0.05	100.2	101.0	

TOTAL KJELDAHL NITROGEN — SM4500 Norg B

SETUP DATE	SETUP ID	BATCH ID	
09.06.23	TKN-090623-01	TKN-090623-01-01	
SAMPLE ID:	RESULT 1:	RESULT 2:	% DEV
20259-23	28.0	25.4	4.9
20553-23	34.5	33.1	2.1
SPIKE ID:	RESULT 1:	RESULT 2:	% REC
20489-23	11.2	34.7	117.5
20489-23	11.2	31.8	103.0
BLANK, mg/L:		LCS % REC:	
< 0.25		99.4	

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LAB CONTACT:	SHAY OCHOA
REPORT DATE:	10.1.23

QC SUMMARY

TOTAL PHOSPHORUS — SM 4500-P E

SETUP DATE	SETUP ID	BATCH ID	
9.6.23	P-090623-02	P-090623-01-01	
SAMPLE ID	RESULT 1	RESULT 2	% DEV
20607-23	7.17	6.86	2.2
20661-23	3.47	3.52	0.7
SPIKE ID:	RESULT 1	RESULT 2	% REC
20919-23	0.36	0.99	98.4
20919-23	0.36	0.94	90.6
BLANK, as P:	< 0.025	LCS % REC:	106.4

NITRATE — EPA 300.0

SETUP DATE	SEQUENCE ID		
8.31.23-9.1.23	IC-083123-26		
SAMPLE ID	RESULT 1	RESULT 2	RPD
20503-23	6.6	6.6	0.0
SPIKE ID:	RESULT 1	RESULT 2	% REC
20503-23	6.6	114.4	107.8
IPCS-1 % REC:	106.5	IPCS-2 % REC:	105.8
LCS % REC:	108.2	LCSD % REC:	108.4
BLANK, mg/L:	<0.01		

OIL AND GREASE — EPA 1664

SETUP DATE	SETUP ID	BATCH ID	
9.5.23	OG-090523-01	OG-090523-01-01	
DUPLICATE ID:	RESULT 1 :	RESULT 2 :	% DEV
712911532	35.2	36.7	2.1
BLANK, mg/L:	QCS % REC:	LCS % REC:	LCSD % REC:
< 1.4	----	88.0	91.8
NO SPIKE AVAILABLE THIS SETUP.			

E. COLI — SM 9223

SETUP DATE	SETUP ID	BATCH ID	
8.30.23	E-083023-25	E-083023-25-01	
DUPLICATE ID:	RESULT 1 :	RESULT 2 :	PRECISION
20407-23	17230	11780	0.14
BLANK, MPN		PRECISION RANGE	
<1		0.0-0.17	

TOTAL METALS — EPA-200.8

Batch ID	ICP-091923-06-01		Date Analyzed	9.19.23	MS Sample ID	21067-23				
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	100.3	101.1	0.79	0.2717	0.6293	89.4	0.6326	90.2	
Total Antimony, mg/L	<0.0005	98.7	96.9	1.84	0.0006	0.3679	91.8	0.3751	93.6	
Total Arsenic, mg/L	<0.0005	97.3	98.8	1.53	0.0026	0.3636	90.3	0.3751	93.1	
Total Barium, mg/L	<0.0005	98	95.6	2.48	0.0389	0.4013	90.6	0.4104	92.9	
Total Beryllium, mg/L	<0.0005	104.5	104.7	0.19	0	0.4006	100.2	0.4031	100.8	
Total Cadmium, mg/L	<0.0005	98.5	96.5	2.05	0	0.3701	92.5	0.3771	94.3	
Total Chromium, mg/L	<0.0005	105.6	106.6	0.94	0.0016	0.3937	98.0	0.3959	98.6	
Total Copper, mg/L	<0.0005	110	108.7	1.19	0.0294	0.4439	103.6	0.4438	103.6	
Total Lead, mg/L	<0.0005	108	105.4	2.44	0.0019	0.3991	99.3	0.3992	99.3	
Total Magnesium, mg/L	<0.05	100.1	101.2	1.09	7.4927	45.4156	94.8	46.0712	96.4	
Total Nickel, mg/L	<0.0005	104	104.9	0.86	0.0035	0.4001	99.2	0.4019	99.6	
Total Selenium, mg/L	<0.0005	96.7	96	0.73	0	0.3482	87.1	0.3563	89.1	
Total Silver, mg/L	<0.0005	107.5	106	1.41	0	0.3907	97.7	0.4027	100.7	
Total Thallium, mg/L	<0.0005	109.2	109.1	0.09	0	0.4051	101.3	0.41	102.5	
Total Zinc, mg/L	<0.005	106.3	106.3	0.00	0.1229	0.5025	94.9	0.5041	95.3	

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LAB CONTACT:	SHAY OCHOA
REPORT DATE:	10.1.23

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 / supplimental narrative

ADDITIONAL NOTES:

BIO CHEM LAB, INC
PO BOX 356
4751 TOKIO ROAD
WEST, TX 76691-0356
E-MAIL: CUSTOMERSERVICE@BIOCHEMLABTX.COM

OFFICE NO.: 254.829.8001
FAX NO.: 254.829.8013
CELL NO.: 254.749.4320
EMERGENCY: 254.749.4320

SERVICE • VISION • COMMUNITY • COMMITMENT

CLIENT / PROJECT: CITY OF MCGREGOR	CONTACT: ROBERT MYERS	COLLECTED BY: Scott Jack
ADDRESS: PO BOX 192	PHONE NO.: 254-359-0561	FIELD DATA: pH 4.4 DO 6.9 TEMP 29.6
MCGREGOR, TX 76657	EMAIL: RMYERS@MCGREGOR-TEXAS.COM	FLOW – DATE/TIME 8.30.23 / 1503

Sample ID	Obs Temp °C	Corr Temp °C	Sample Name, Site Description or Case Number	Collection Date	Collection Time	Matrix	Container No. / Volume / Type	Grab / Composite	Preservation Code	Verified	Analysis Requested
Laboratory Use Only											
20421-23	2.5	2.3	CONTACT CHAMBER	8.30.23	1449	NPW	2 / 2000 / P	GRAB	1		CBOD / TSS / SO4 / Cl / TDS / EC / TOTAL ALK / FLUORIDE / HEX CHROME / TRI CHROME
							1 / 1000 / P		1,2	1.0	AMMONIA / TKN / PHOS / NITRATE NITROGEN
							1 / 500 / AG		1,2		OIL & GREASE
							1 / 500 / P		3	1.0	TOTAL METALS: Al, Sb, As, Ba, Be, Cd, Cu, Pb, Mg, Ni, Se, Ag, Ti, Zn, Cr
							1 / 120 / M		1		E. COLI
							ASSORTED		1		NETWORK TESTING / SEE ATTACHED LIST

PROJECT COMMENTS / SAMPLING PROCEDURES:

Documentation of TRC / Mn Correction, as needed: TRC = 0.88 8.30.23 / 1503 / ST

LABORATORY COMMENTS:

PRESERVATIVE / REAGENT ID
H_2SO_4 12333 / 12266
HNO_3 12354
HCl
NA-OH
NA-THIO
OTHER:
THERMOMETER ID: IR1

DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	PLACED IN REFRIGERATOR / INITIALS (FRIDGE ID)
8.30.23	1616	Scott Jack	8.30.23	1616	Scott Jack	NPW1 / NPW1

Matrix: AQ - Aqueous NPW - Non-Potable Water S - Sludge/Soil/Sediment PW - Potable Water

(1) cool to 4°C (2) H_2SO_4 to pH<2 (3) HNO_3 to pH<2 (4) HCl to pH<2 (5) $Na_2S_2O_3$ (6) NaOH to pH>12 (7) None required (8) Other, as noted

Container: P - Plastic AP - Amber Plastic G - Clear Glass AG - Amber Glass M - Bact / MICRO B - Whirl Pak / BAG VOA - 40 mL vial O - OTHER___Describe:

pH STRIPS: ✓(0-6): 710011527 ✓(7.5-14): 691019477 CUSTODY SEALS: ✓COOLER ___CONTAINERS ✓NA/NO SEALS INTACT: ✓YES ___NO

ADDITIONAL PRESERVATION / SAMPLE INTEGRITY NOTES:

REQUESTED TAT: ✓STANDARD (7-10 DAYS) ___BCL EXPRESS (5-6 DAYS) (1.25X) ___BCL PRIORITY (3-4 DAYS) (1.5X) ___BCL FIRE (1-2 DAYS) (2.0X) Rush service availability may depend on logistics and method.

BIO CHEM LAB, INC.
4751 TOKIO RD. WEST, TX 76691
PHONE: 254.829.8001 FAX: 254.829.8013

ANALYTICAL REPORT

CLIENT IDENTIFICATION INFORMATION:

CITY OF McGREGOR
P O BOX 192
McGREGOR, TX 76657

AUGUST 2023 - MCGREGOR

REPORT ID: MCG-092723-01
LAB CONTACT: SHAY OCHOA
REPORT DATE: 10.1.23

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Andy Janek
Bio Chem Lab, Inc
4751 Tokio Rd
West, Texas 76691

Generated 10/30/2023 9:13:40 PM

JOB DESCRIPTION

City of McGregor Permit Renewal

JOB NUMBER

860-56414-1

Eurofins Houston
4145 Greenbriar Dr
Stafford TX 77477

See page two for job notes and contact information.

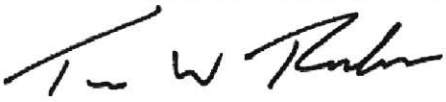
Eurofins Houston

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



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Authorized for release by
Travis Richter, Project Manager
Travis.Richter@et.eurofinsus.com
(281)794-7216

Table of Contents

Definitions/Glossary

Client: Bio Chem Lab, Inc
Project/Site: City of McGregor Permit Renewal

Job ID: 860-56414-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD 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.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
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
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.
¤	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
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)

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

Job ID: 860-56414-1

Laboratory: Eurofins Houston

Narrative

Job Narrative
860-56414-1

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 sample was received on 9/1/2023 7:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C

Subcontract Work
Method Table 4.0 (1) - Organophosphorous Pesticides (GC): This method was subcontracted to Ana-Lab Corporation. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 625.1: The laboratory control sample (LCS) for preparation batch 860-120537 and analytical batch 860-120468 recovered outside control limits for the following analytes: 1,2-Dichlorobenzene, 1,3-Dichlorobenzene and Hexachloroethane. The associated sample was re-prepared and re-analyzed outside holding time. Both sets of data have been reported.

Method 625.1: The following sample was re-prepared outside of preparation holding time due to QC failed on the first extraction: 20421-23 (860-56414-1).

Method 625.1: The laboratory control sample (LCS) for preparation batch 860-120077 and analytical batch 860-120189 recovered outside control limits for multiple analytes. The associated sample was re-prepared and re-analyzed outside holding time. Both sets of data have been reported.

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 sample contained an allowable number of surrogate compounds outside limits: 20421-23 (860-56414-1). 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 860-120254 and analytical batch 860-120371 was outside the upper control limits.

(MB 860-120254/1-A)

Method 608.3_PCB: The surrogate recovery for the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD)

Job ID: 860-56414-1 (Continued)

Laboratory: Eurofins Houston (Continued)

associated with preparation batch 860-120254 and analytical batch 860-120371 was outside the upper control limits.

(LCS 860-120254/4-A) and (LCSD 860-120254/5-A)

Method 608.3_PCB: The DCB (Decachlorobiphenyl) surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: 20421-23 (860-56414-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
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.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Bio Chem Lab, Inc
Project/Site: City of McGregor Permit Renewal

Job ID: 860-56414-1

Client Sample ID: 20421-23

Lab Sample ID: 860-56414-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromodichloromethane	12.7		1.00	0.552	ug/L	1		624.1	Total/NA
Bromoform	1.40	J	5.00	0.633	ug/L	1		624.1	Total/NA
Chloroform	10.4		1.00	0.643	ug/L	1		624.1	Total/NA
Dibromochloromethane	7.83		5.00	0.547	ug/L	1		624.1	Total/NA
Trihalomethanes, Total	32.3		5.00	0.643	ug/L	1		624.1	Total/NA
Diuron	0.210		0.0900	0.0514	ug/L	1		632	Total/NA
Mercury	0.00000139		0.0000005 00	0.0000002 00	mg/L	1		1631E	Total/NA
Boron	0.439		0.0100	0.00252	mg/L	1		200.8	Total Recoverable
Cyanide, Total	0.00280	J	0.00500	0.00200	mg/L	1		335.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 20421-23

Date Collected: 08/30/23 14:49
Date Received: 09/01/23 07:00

Lab Sample ID: 860-56414-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169	mg/L			09/01/23 16:49	1
1,1,2,2-Tetrachloroethane	<0.470	U	1.00	0.470	ug/L			09/01/23 16:49	1
1,1,2-Trichloroethane	<0.511	U	1.00	0.511	ug/L			09/01/23 16:49	1
1,1-Dichloroethane	<0.635	U	1.00	0.635	ug/L			09/01/23 16:49	1
1,1-Dichlorethylene	<0.738	U	1.00	0.738	ug/L			09/01/23 16:49	1
1,2-Dibromoethane	<0.999	U	5.00	0.999	ug/L			09/01/23 16:49	1
1,2-Dichloroethane	<0.590	U	1.00	0.590	ug/L			09/01/23 16:49	1
1,2-Dichloropropane	<0.667	U	5.00	0.667	ug/L			09/01/23 16:49	1
Methyl Ethyl Ketone	<8.28	U	50.0	8.28	ug/L			09/01/23 16:49	1
2-Chloroethyl vinyl ether	<2.52	U	5.00	2.52	ug/L			09/01/23 16:49	1
Acrolein	<11.1	U	50.0	11.1	ug/L			09/01/23 16:49	1
Acrylonitrile	<14.3	U	50.0	14.3	ug/L			09/01/23 16:49	1
Benzene	<0.460	U	1.00	0.460	ug/L			09/01/23 16:49	1
Bromodichloromethane	**12.7**		1.00	0.552	ug/L			09/01/23 16:49	1
Bromoform	**1.40**	**J**	5.00	0.633	ug/L			09/01/23 16:49	1
Methyl bromide	<1.42	U	5.00	1.42	ug/L			09/01/23 16:49	1
Carbon tetrachloride	<0.896	U	5.00	0.896	ug/L			09/01/23 16:49	1
Chlorobenzene	<0.530	U	1.00	0.530	ug/L			09/01/23 16:49	1
Chloroethane	<1.98	U	10.0	1.98	ug/L			09/01/23 16:49	1
Chloroform	**10.4**		1.00	0.643	ug/L			09/01/23 16:49	1
Methyl chloride	<2.04	U	10.0	2.04	ug/L			09/01/23 16:49	1
Dibromochloromethane	**7.83**		5.00	0.547	ug/L			09/01/23 16:49	1
Ethylbenzene	<0.411	U	1.00	0.411	ug/L			09/01/23 16:49	1
Methylene Chloride	<1.73	U	5.00	1.73	ug/L			09/01/23 16:49	1
Tetrachloroethylene	<0.801	U	1.00	0.801	ug/L			09/01/23 16:49	1
Toluene	<0.475	U	1.00	0.475	ug/L			09/01/23 16:49	1
Trichloroethylene	<0.791	U	5.00	0.791	ug/L			09/01/23 16:49	1
Trihalomethanes, Total	**32.3**		5.00	0.643	ug/L			09/01/23 16:49	1
Vinyl chloride	<0.638	U	2.00	0.638	ug/L			09/01/23 16:49	1
1,2-trans-Dichloroethylene	<0.368	U	1.00	0.368	ug/L			09/01/23 16:49	1
1,3-Dichloropropene, Total	<1.27	U	5.00	1.27	ug/L			09/01/23 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 144*		*09/01/23 16:49*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*09/01/23 16:49*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.39	U *-	5.70	1.39	ug/L		09/05/23 09:04	09/05/23 23:21	1
Acenaphthylene	<1.41	U *-	10.0	1.41	ug/L		09/05/23 09:04	09/05/23 23:21	1
Anthracene	<1.50	U	5.70	1.50	ug/L		09/05/23 09:04	09/05/23 23:21	1
Benzidine	<4.80	U *-	20.0	4.80	ug/L		09/05/23 09:04	09/05/23 23:21	1
Benzo[a]anthracene	<0.173	U	5.00	0.173	ug/L		09/05/23 09:04	09/05/23 23:21	1
3,4-Benzofluoranthene	<2.04	U	10.0	2.04	ug/L		09/05/23 09:04	09/05/23 23:21	1
Benzo[k]fluoranthene	<0.375	U	5.00	0.375	ug/L		09/05/23 09:04	09/05/23 23:21	1
Benzo[g,h,i]perylene	<2.68	U	10.0	2.68	ug/L		09/05/23 09:04	09/05/23 23:21	1
Benzo[a]pyrene	<0.364	U	5.00	0.364	ug/L		09/05/23 09:04	09/05/23 23:21	1
Butyl benzyl phthalate	<0.337	U	5.00	0.337	ug/L		09/05/23 09:04	09/05/23 23:21	1
Bis(2-chloroethoxy)methane	<1.76	U	10.0	1.76	ug/L		09/05/23 09:04	09/05/23 23:21	1
Bis(2-chloroethyl)ether	<2.16	U	10.0	2.16	ug/L		09/05/23 09:04	09/05/23 23:21	1

Client Sample ID: 20421-23

Date Collected: 08/30/23 14:49
Date Received: 09/01/23 07:00

Lab Sample ID: 860-56414-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	<0.277	U	5.00	0.277	ug/L		09/05/23 09:04	09/05/23 23:21	1
4-Bromophenyl phenyl ether	<0.256	U *-	5.00	0.256	ug/L		09/05/23 09:04	09/05/23 23:21	1
2-Chloronaphthalene	<0.462	U *-	5.00	0.462	ug/L		09/05/23 09:04	09/05/23 23:21	1
4-Chlorophenyl phenyl ether	<1.28	U	10.0	1.28	ug/L		09/05/23 09:04	09/05/23 23:21	1
Chrysene	<0.222	U	5.00	0.222	ug/L		09/05/23 09:04	09/05/23 23:21	1
Dibenz(a,h)anthracene	<0.246	U	5.00	0.246	ug/L		09/05/23 09:04	09/05/23 23:21	1
1,2-Dichlorobenzene	<1.62	U *-	10.0	1.62	ug/L		09/05/23 09:04	09/05/23 23:21	1
1,3-Dichlorobenzene	<1.44	U *-	10.0	1.44	ug/L		09/05/23 09:04	09/05/23 23:21	1
1,4-Dichlorobenzene	<1.55	U	10.0	1.55	ug/L		09/05/23 09:04	09/05/23 23:21	1
3,3'-Dichlorobenzidine	<0.341	U	5.00	0.341	ug/L		09/05/23 09:04	09/05/23 23:21	1
Diethyl phthalate	<1.59	U	5.00	1.59	ug/L		09/05/23 09:04	09/05/23 23:21	1
Dimethyl phthalate	<0.299	U	2.50	0.299	ug/L		09/05/23 09:04	09/05/23 23:21	1
Di-n-butyl phthalate	<0.252	U	5.00	0.252	ug/L		09/05/23 09:04	09/05/23 23:21	1
Di-n-octyl phthalate	<0.373	U	5.00	0.373	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,4-Dinitrotoluene	<1.31	U	10.0	1.31	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,6-Dinitrotoluene	<1.61	U *-	5.00	1.61	ug/L		09/05/23 09:04	09/05/23 23:21	1
Fluoranthene	<1.59	U	5.00	1.59	ug/L		09/05/23 09:04	09/05/23 23:21	1
Fluorene	<1.63	U *-	5.00	1.63	ug/L		09/05/23 09:04	09/05/23 23:21	1
Hexachlorobenzene	<0.307	U	5.00	0.307	ug/L		09/05/23 09:04	09/05/23 23:21	1
Hexachlorobutadiene	<0.238	U	1.00	0.238	ug/L		09/05/23 09:04	09/05/23 23:21	1
Hexachlorocyclopentadiene	<4.58	U *-	10.0	4.58	ug/L		09/05/23 09:04	09/05/23 23:21	1
Hexachloroethane	<0.526	U *-	4.80	0.526	ug/L		09/05/23 09:04	09/05/23 23:21	1
Indeno[1,2,3-cd]pyrene	<2.29	U	10.0	2.29	ug/L		09/05/23 09:04	09/05/23 23:21	1
Isophorone	<1.64	U	5.00	1.64	ug/L		09/05/23 09:04	09/05/23 23:21	1
Naphthalene	<0.542	U	2.50	0.542	ug/L		09/05/23 09:04	09/05/23 23:21	1
Nitrobenzene	<1.66	U *-	5.00	1.66	ug/L		09/05/23 09:04	09/05/23 23:21	1
N-Nitrosodimethylamine	<2.02	U	10.0	2.02	ug/L		09/05/23 09:04	09/05/23 23:21	1
N-Nitrosodi-n-propylamine	<2.88	U	10.0	2.88	ug/L		09/05/23 09:04	09/05/23 23:21	1
N-Nitrosodiphenylamine	<1.81	U	10.0	1.81	ug/L		09/05/23 09:04	09/05/23 23:21	1
Phenanthrene	<1.42	U *-	10.0	1.42	ug/L		09/05/23 09:04	09/05/23 23:21	1
Pyrene	<0.178	U *-	5.00	0.178	ug/L		09/05/23 09:04	09/05/23 23:21	1
1,2,4-Trichlorobenzene	<1.61	U *-	5.00	1.61	ug/L		09/05/23 09:04	09/05/23 23:21	1
p-Chloro-m-cresol	<1.57	U	5.00	1.57	ug/L		09/05/23 09:04	09/05/23 23:21	1
2-Chlorophenol	<0.649	U	5.00	0.649	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,4-Dichlorophenol	<0.314	U	5.00	0.314	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,4-Dimethylphenol	<0.649	U	5.00	0.649	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,4-Dinitrophenol	<0.499	U	10.0	0.499	ug/L		09/05/23 09:04	09/05/23 23:21	1
4,6-Dinitro-o-cresol	<1.44	U *-	10.0	1.44	ug/L		09/05/23 09:04	09/05/23 23:21	1
2-Nitrophenol	<1.67	U	10.0	1.67	ug/L		09/05/23 09:04	09/05/23 23:21	1
4-Nitrophenol	<4.91	U	7.20	4.91	ug/L		09/05/23 09:04	09/05/23 23:21	1
Pentachlorophenol	<0.234	U	10.0	0.234	ug/L		09/05/23 09:04	09/05/23 23:21	1
Phenol	<0.423	U	4.50	0.423	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,4,6-Trichlorophenol	<1.42	U	5.00	1.42	ug/L		09/05/23 09:04	09/05/23 23:21	1
3 & 4 Methylphenol	<2.62	U	10.0	2.62	ug/L		09/05/23 09:04	09/05/23 23:21	1
2-Methylphenol	<1.62	U	10.0	1.62	ug/L		09/05/23 09:04	09/05/23 23:21	1
N-Nitrosodiethylamine	<1.75	U	10.0	1.75	ug/L		09/05/23 09:04	09/05/23 23:21	1
N-Nitrosodi-n-butylamine	<1.49	U	10.0	1.49	ug/L		09/05/23 09:04	09/05/23 23:21	1
Pentachlorobenzene	<1.07	U	10.0	1.07	ug/L		09/05/23 09:04	09/05/23 23:21	1
Pyridine	<2.64	U *1	10.0	2.64	ug/L		09/05/23 09:04	09/05/23 23:21	1

Client Sample ID: 20421-23

Date Collected: 08/30/23 14:49
Date Received: 09/01/23 07:00

Lab Sample ID: 860-56414-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<1.32	U	10.0	1.32	ug/L		09/05/23 09:04	09/05/23 23:21	1
2,4,5-Trichlorophenol	<2.00	U	10.0	2.00	ug/L		09/05/23 09:04	09/05/23 23:21	1
Nonylphenol	<0.0100	U	0.0100	0.0100	mg/L		09/05/23 09:04	09/05/23 23:21	1
bis (2-chloroisopropyl) ether	<1.79	U *-	10.0	1.79	ug/L		09/05/23 09:04	09/05/23 23:21	1
1,2-Diphenylhydrazine (as Azobenzene)	<1.50	U	10.0	1.50	ug/L		09/05/23 09:04	09/05/23 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*18*	*S1-*	*28 - 114*	*09/05/23 09:04*	*09/05/23 23:21*	*1*
Phenol-d5 (Surr)	*12*		*8 - 424*	*09/05/23 09:04*	*09/05/23 23:21*	*1*
Nitrobenzene-d5 (Surr)	*61*		*15 - 314*	*09/05/23 09:04*	*09/05/23 23:21*	*1*
2-Fluorobiphenyl	*58*		*29 - 112*	*09/05/23 09:04*	*09/05/23 23:21*	*1*
2,4,6-Tribromophenol (Surr)	*50*		*31 - 132*	*09/05/23 09:04*	*09/05/23 23:21*	*1*
p-Terphenyl-d14 (Surr)	*57*		*20 - 141*	*09/05/23 09:04*	*09/05/23 23:21*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.39	U H	5.70	1.39	ug/L		09/07/23 10:54	09/08/23 19:07	1
Acenaphthylene	<1.41	U H	10.0	1.41	ug/L		09/07/23 10:54	09/08/23 19:07	1
Anthracene	<1.50	U H	5.70	1.50	ug/L		09/07/23 10:54	09/08/23 19:07	1
Benzidine	<4.80	U H	20.0	4.80	ug/L		09/07/23 10:54	09/08/23 19:07	1
Benzo[a]anthracene	<0.173	U H	5.00	0.173	ug/L		09/07/23 10:54	09/08/23 19:07	1
3,4-Benzofluoranthene	<2.04	U H	10.0	2.04	ug/L		09/07/23 10:54	09/08/23 19:07	1
Benzo[k]fluoranthene	<0.375	U H	5.00	0.375	ug/L		09/07/23 10:54	09/08/23 19:07	1
Benzo[g,h,i]perylene	<2.68	U H	10.0	2.68	ug/L		09/07/23 10:54	09/08/23 19:07	1
Benzo[a]pyrene	<0.364	U H	5.00	0.364	ug/L		09/07/23 10:54	09/08/23 19:07	1
Butyl benzyl phthalate	<0.337	U H	5.00	0.337	ug/L		09/07/23 10:54	09/08/23 19:07	1
Bis(2-chloroethoxy)methane	<1.76	U H	10.0	1.76	ug/L		09/07/23 10:54	09/08/23 19:07	1
Bis(2-chloroethyl)ether	<2.16	U H	10.0	2.16	ug/L		09/07/23 10:54	09/08/23 19:07	1
Bis(2-ethylhexyl) phthalate	<0.277	U H	5.00	0.277	ug/L		09/07/23 10:54	09/08/23 19:07	1
4-Bromophenyl phenyl ether	<0.256	U H	5.00	0.256	ug/L		09/07/23 10:54	09/08/23 19:07	1
2-Chloronaphthalene	<0.462	U H	5.00	0.462	ug/L		09/07/23 10:54	09/08/23 19:07	1
4-Chlorophenyl phenyl ether	<1.28	U H	10.0	1.28	ug/L		09/07/23 10:54	09/08/23 19:07	1
Chrysene	<0.222	U H	5.00	0.222	ug/L		09/07/23 10:54	09/08/23 19:07	1
Dibenz(a,h)anthracene	<0.246	U H	5.00	0.246	ug/L		09/07/23 10:54	09/08/23 19:07	1
1,2-Dichlorobenzene	<1.62	U H *-	10.0	1.62	ug/L		09/07/23 10:54	09/08/23 19:07	1
1,3-Dichlorobenzene	<1.44	U H *-	10.0	1.44	ug/L		09/07/23 10:54	09/08/23 19:07	1
1,4-Dichlorobenzene	<1.55	U H	10.0	1.55	ug/L		09/07/23 10:54	09/08/23 19:07	1
3,3'-Dichlorobenzidine	<0.341	U H	5.00	0.341	ug/L		09/07/23 10:54	09/08/23 19:07	1
Diethyl phthalate	<1.59	U H	5.00	1.59	ug/L		09/07/23 10:54	09/08/23 19:07	1
Dimethyl phthalate	<0.299	U H	2.50	0.299	ug/L		09/07/23 10:54	09/08/23 19:07	1
Di-n-butyl phthalate	<0.252	U H	5.00	0.252	ug/L		09/07/23 10:54	09/08/23 19:07	1
Di-n-octyl phthalate	<0.373	U H	5.00	0.373	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,4-Dinitrotoluene	<1.31	U H	10.0	1.31	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,6-Dinitrotoluene	<1.61	U H	5.00	1.61	ug/L		09/07/23 10:54	09/08/23 19:07	1
Fluoranthene	<1.59	U H	5.00	1.59	ug/L		09/07/23 10:54	09/08/23 19:07	1
Fluorene	<1.63	U H	5.00	1.63	ug/L		09/07/23 10:54	09/08/23 19:07	1
Hexachlorobenzene	<0.307	U H	5.00	0.307	ug/L		09/07/23 10:54	09/08/23 19:07	1
Hexachlorobutadiene	<0.238	U H	1.00	0.238	ug/L		09/07/23 10:54	09/08/23 19:07	1
Hexachlorocyclopentadiene	<4.58	U H	10.0	4.58	ug/L		09/07/23 10:54	09/08/23 19:07	1

Client Sample ID: 20421-23

Date Collected: 08/30/23 14:49
Date Received: 09/01/23 07:00

Lab Sample ID: 860-56414-1

Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	<0.526	U H *-	4.80	0.526	ug/L		09/07/23 10:54	09/08/23 19:07	1
Indeno[1,2,3-cd]pyrene	<2.29	U H	10.0	2.29	ug/L		09/07/23 10:54	09/08/23 19:07	1
Isophorone	<1.64	U H	5.00	1.64	ug/L		09/07/23 10:54	09/08/23 19:07	1
Naphthalene	<0.542	U H	2.50	0.542	ug/L		09/07/23 10:54	09/08/23 19:07	1
Nitrobenzene	<1.66	U H	5.00	1.66	ug/L		09/07/23 10:54	09/08/23 19:07	1
N-Nitrosodimethylamine	<2.02	U H	10.0	2.02	ug/L		09/07/23 10:54	09/08/23 19:07	1
N-Nitrosodi-n-propylamine	<2.88	U H	10.0	2.88	ug/L		09/07/23 10:54	09/08/23 19:07	1
N-Nitrosodiphenylamine	<1.81	U H	10.0	1.81	ug/L		09/07/23 10:54	09/08/23 19:07	1
Phenanthrene	<1.42	U H	10.0	1.42	ug/L		09/07/23 10:54	09/08/23 19:07	1
Pyrene	<0.178	U H	5.00	0.178	ug/L		09/07/23 10:54	09/08/23 19:07	1
1,2,4-Trichlorobenzene	<1.61	U H	5.00	1.61	ug/L		09/07/23 10:54	09/08/23 19:07	1
p-Chloro-m-cresol	<1.57	U H	5.00	1.57	ug/L		09/07/23 10:54	09/08/23 19:07	1
2-Chlorophenol	<0.649	U H	5.00	0.649	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,4-Dichlorophenol	<0.314	U H	5.00	0.314	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,4-Dimethylphenol	<0.649	U H	5.00	0.649	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,4-Dinitrophenol	<0.499	U H	10.0	0.499	ug/L		09/07/23 10:54	09/08/23 19:07	1
4,6-Dinitro-o-cresol	<1.44	U H	10.0	1.44	ug/L		09/07/23 10:54	09/08/23 19:07	1
2-Nitrophenol	<1.67	U H	10.0	1.67	ug/L		09/07/23 10:54	09/08/23 19:07	1
4-Nitrophenol	<4.91	U H	7.20	4.91	ug/L		09/07/23 10:54	09/08/23 19:07	1
Pentachlorophenol	<0.234	U H	10.0	0.234	ug/L		09/07/23 10:54	09/08/23 19:07	1
Phenol	<0.423	U H	4.50	0.423	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,4,6-Trichlorophenol	<1.42	U H	5.00	1.42	ug/L		09/07/23 10:54	09/08/23 19:07	1
3 & 4 Methylphenol	<2.62	U H	10.0	2.62	ug/L		09/07/23 10:54	09/08/23 19:07	1
2-Methylphenol	<1.62	U H	10.0	1.62	ug/L		09/07/23 10:54	09/08/23 19:07	1
N-Nitrosodiethylamine	<1.75	U H	10.0	1.75	ug/L		09/07/23 10:54	09/08/23 19:07	1
N-Nitrosodi-n-butylamine	<1.49	U H	10.0	1.49	ug/L		09/07/23 10:54	09/08/23 19:07	1
Pentachlorobenzene	<1.07	U H	10.0	1.07	ug/L		09/07/23 10:54	09/08/23 19:07	1
Pyridine	<2.64	U H	10.0	2.64	ug/L		09/07/23 10:54	09/08/23 19:07	1
1,2,4,5-Tetrachlorobenzene	<1.32	U H	10.0	1.32	ug/L		09/07/23 10:54	09/08/23 19:07	1
2,4,5-Trichlorophenol	<2.00	U H	10.0	2.00	ug/L		09/07/23 10:54	09/08/23 19:07	1
Nonylphenol	<0.0100	U H	0.0100	0.0100	mg/L		09/07/23 10:54	09/08/23 19:07	1
bis (2-chloroisopropyl) ether	<1.79	U H	10.0	1.79	ug/L		09/07/23 10:54	09/08/23 19:07	1
1,2-Diphenylhydrazine (as Azobenzene)	<1.50	U H	10.0	1.50	ug/L		09/07/23 10:54	09/08/23 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*33*		*28 - 114*	*09/07/23 10:54*	*09/08/23 19:07*	*1*
Phenol-d5 (Surr)	*17*		*8 - 424*	*09/07/23 10:54*	*09/08/23 19:07*	*1*
Nitrobenzene-d5 (Surr)	*85*		*15 - 314*	*09/07/23 10:54*	*09/08/23 19:07*	*1*
2-Fluorobiphenyl	*78*		*29 - 112*	*09/07/23 10:54*	*09/08/23 19:07*	*1*
2,4,6-Tribromophenol (Surr)	*59*		*31 - 132*	*09/07/23 10:54*	*09/08/23 19:07*	*1*
p-Terphenyl-d14 (Surr)	*92*		*20 - 141*	*09/07/23 10:54*	*09/08/23 19:07*	*1*

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicofol	<0.0500	U	0.100	0.0500	ug/L		09/06/23 06:38	09/06/23 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*97*		*15 - 136*	*09/06/23 06:38*	*09/06/23 13:05*	*1*
Tetrachloro-m-xylene (Surr)	*72*		*18 - 126*	*09/06/23 06:38*	*09/06/23 13:05*	*1*

Client Sample ID: 20421-23

Date Collected: 08/30/23 14:49
Date Received: 09/01/23 07:00

Lab Sample ID: 860-56414-1

Matrix: Water

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 21:14	1
PCB-1221	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 21:14	1
PCB-1232	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 21:14	1
PCB-1242	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 21:14	1
PCB-1248	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 21:14	1
PCB-1254	<0.00000780	U	0.000100	0.0000078 0	mg/L		09/06/23 06:38	09/06/23 21:14	1
PCB-1260	<0.00000780	U	0.000100	0.0000078 0	mg/L		09/06/23 06:38	09/06/23 21:14	1
Polychlorinated biphenyls, Total	<0.000100	U	0.000100	0.000100	mg/L		09/06/23 06:38	09/06/23 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*103*		*18 - 126*	*09/06/23 06:38*	*09/06/23 21:14*	*1*
DCB Decachlorobiphenyl (Surr)	*185*	*S1+*	*15 - 136*	*09/06/23 06:38*	*09/06/23 21:14*	*1*

Method: EPA-01 615 - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<0.0422	U	0.200	0.0422	ug/L		09/05/23 16:52	09/06/23 14:52	1
2,4-D	<0.0539	U	0.200	0.0539	ug/L		09/05/23 16:52	09/06/23 14:52	1
Hexachlorophene	<0.000808	U	0.00500	0.000808	mg/L		09/05/23 16:52	09/06/23 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*138*		*45 - 150*	*09/05/23 16:52*	*09/06/23 14:52*	*1*

Method: EPA-01 632 - Carbamate and Urea Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		09/05/23 12:59	09/16/23 09:33	1
Diuron	**0.210**		0.0900	0.0514	ug/L		09/05/23 12:59	09/16/23 09:33	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00000139**		0.0000005 00	0.0000002 00	mg/L		09/05/23 13:30	09/06/23 12:11	1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.439**		0.0100	0.00252	mg/L		09/10/23 12:30	09/12/23 00:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (EPA 335.4)	**0.00280**	**J**	0.00500	0.00200	mg/L		09/08/23 14:40	09/08/23 18:42	1
Phenols, Total (EPA 420.4)	<0.00580	U	0.0100	0.00580	mg/L			09/05/23 19:05	1
Cyanide, Amenable (SM 4500 CN G)	<0.00233	U	0.00500	0.00233	mg/L			09/01/23 13:21	1

Surrogate Summary

Client: Bio Chem Lab, Inc
Project/Site: City of McGregor Permit Renewal

Job ID: 860-56414-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCA	TOL
Lab Sample ID	Client Sample ID	(63-144)	(80-120)
860-56414-1	20421-23	107	101
LCS 860-119794/3	Lab Control Sample	97	99
LCSD 860-119794/4	Lab Control Sample Dup	97	102
MB 860-119794/10	Method Blank	105	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHd14
Lab Sample ID	Client Sample ID	(28-114)	(8-424)	(15-314)	(29-112)	(31-132)	(20-141)
860-56414-1	20421-23	18 S1-	12	61	58	50	57
860-56414-1 - RE	20421-23	33	17	85	78	59	92
LCS 860-120077/2-A	Lab Control Sample	31	24	54	50	49	61
LCS 860-120537/2-A	Lab Control Sample	46	33	77	72	84	84
LCSD 860-120077/3-A	Lab Control Sample Dup	32	22	52	51	50	60
LCSD 860-120537/3-A	Lab Control Sample Dup	45	33	78	73	83	81
MB 860-120077/1-A	Method Blank	33	21	59	56	44	62
MB 860-120537/1-A	Method Blank	48	30	75	77	62	86

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(15-136)	(18-126)
860-56414-1	20421-23	97	72
LCS 860-120254/2-A	Lab Control Sample	125	98
LCSD 860-120254/3-A	Lab Control Sample Dup	118	92
MB 860-120254/1-A	Method Blank	107	98

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Surrogate Summary

Client: Bio Chem Lab, Inc
Job ID: 860-56414-1
Project/Site: City of McGregor Permit Renewal

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (18-126)	DCB1 (15-136)
860-56414-1	20421-23	103	185 S1+
LCS 860-120254/4-A	Lab Control Sample	115	194 S1+
LCSD 860-120254/5-A	Lab Control Sample Dup	93	191 S1+
MB 860-120254/1-A	Method Blank	105	171 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 615 - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DCPAA1 (45-150)
860-56414-1	20421-23	138
LCS 860-120210/2-A	Lab Control Sample	125
LCS 860-120210/4-A	Lab Control Sample	112
LCSD 860-120210/3-A	Lab Control Sample Dup	132
LCSD 860-120210/5-A	Lab Control Sample Dup	114
MB 860-120210/1-A	Method Blank	127

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-119794/10
Matrix: Water
Analysis Batch: 119794

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.00169	U	0.00500	0.00169	mg/L			09/01/23 10:20	1
1,1,2,2-Tetrachloroethane	<0.470	U	1.00	0.470	ug/L			09/01/23 10:20	1
1,1,2-Trichloroethane	<0.511	U	1.00	0.511	ug/L			09/01/23 10:20	1
1,1-Dichloroethane	<0.635	U	1.00	0.635	ug/L			09/01/23 10:20	1
1,1-Dichlorethylene	<0.738	U	1.00	0.738	ug/L			09/01/23 10:20	1
1,2-Dibromoethane	<0.999	U	5.00	0.999	ug/L			09/01/23 10:20	1
1,2-Dichloroethane	<0.590	U	1.00	0.590	ug/L			09/01/23 10:20	1
1,2-Dichloropropane	<0.667	U	5.00	0.667	ug/L			09/01/23 10:20	1
Methyl Ethyl Ketone	<8.28	U	50.0	8.28	ug/L			09/01/23 10:20	1
2-Chloroethyl vinyl ether	<2.52	U	5.00	2.52	ug/L			09/01/23 10:20	1
Acrolein	<11.1	U	50.0	11.1	ug/L			09/01/23 10:20	1
Acrylonitrile	<14.3	U	50.0	14.3	ug/L			09/01/23 10:20	1
Benzene	<0.460	U	1.00	0.460	ug/L			09/01/23 10:20	1
Bromodichloromethane	<0.552	U	1.00	0.552	ug/L			09/01/23 10:20	1
Bromoform	<0.633	U	5.00	0.633	ug/L			09/01/23 10:20	1
Methyl bromide	<1.42	U	5.00	1.42	ug/L			09/01/23 10:20	1
Carbon tetrachloride	<0.896	U	5.00	0.896	ug/L			09/01/23 10:20	1
Chlorobenzene	<0.530	U	1.00	0.530	ug/L			09/01/23 10:20	1
Chloroethane	<1.98	U	10.0	1.98	ug/L			09/01/23 10:20	1
Chloroform	<0.643	U	1.00	0.643	ug/L			09/01/23 10:20	1
Methyl chloride	<2.04	U	10.0	2.04	ug/L			09/01/23 10:20	1
Dibromochloromethane	<0.547	U	5.00	0.547	ug/L			09/01/23 10:20	1
Ethylbenzene	<0.411	U	1.00	0.411	ug/L			09/01/23 10:20	1
Methylene Chloride	<1.73	U	5.00	1.73	ug/L			09/01/23 10:20	1
Tetrachloroethylene	<0.801	U	1.00	0.801	ug/L			09/01/23 10:20	1
Toluene	<0.475	U	1.00	0.475	ug/L			09/01/23 10:20	1
Trichloroethylene	<0.791	U	5.00	0.791	ug/L			09/01/23 10:20	1
Trihalomethanes, Total	<0.643	U	5.00	0.643	ug/L			09/01/23 10:20	1
Vinyl chloride	<0.638	U	2.00	0.638	ug/L			09/01/23 10:20	1
1,2-trans-Dichloroethylene	<0.368	U	1.00	0.368	ug/L			09/01/23 10:20	1
1,3-Dichloropropene, Total	<1.27	U	5.00	1.27	ug/L			09/01/23 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 144*		*09/01/23 10:20*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/01/23 10:20*	*1*

Lab Sample ID: LCS 860-119794/3
Matrix: Water
Analysis Batch: 119794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.0500	0.04983		mg/L		100	70 - 130
1,1,2,2-Tetrachloroethane	50.0	46.43		ug/L		93	74 - 125
1,1,2-Trichloroethane	50.0	48.32		ug/L		97	70 - 130
1,1-Dichloroethane	50.0	51.76		ug/L		104	70 - 130
1,1-Dichlorethylene	50.0	48.92		ug/L		98	50 - 150
1,2-Dibromoethane	50.0	45.93		ug/L		92	73 - 125
1,2-Dichloroethane	50.0	46.22		ug/L		92	72 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-119794/3
Matrix: Water
Analysis Batch: 119794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	51.17		ug/L		102	74 - 125
Methyl Ethyl Ketone	250	254.2		ug/L		102	60 - 140
2-Chloroethyl vinyl ether	50.0	47.99		ug/L		96	50 - 150
Acrolein	250	262.8		ug/L		105	60 - 140
Acrylonitrile	500	538.3		ug/L		108	60 - 140
Benzene	50.0	49.60		ug/L		99	75 - 125
Bromodichloromethane	50.0	47.58		ug/L		95	75 - 125
Bromoform	50.0	45.32		ug/L		91	70 - 130
Methyl bromide	50.0	61.78		ug/L		124	60 - 140
Carbon tetrachloride	50.0	48.58		ug/L		97	70 - 130
Chlorobenzene	50.0	46.26		ug/L		93	65 - 135
Chloroethane	50.0	52.91		ug/L		106	60 - 140
Chloroform	50.0	50.67		ug/L		101	70 - 121
Methyl chloride	50.0	51.26		ug/L		103	60 - 140
Dibromochloromethane	50.0	45.74		ug/L		91	73 - 125
Ethylbenzene	50.0	47.35		ug/L		95	75 - 125
Methylene Chloride	50.0	47.89		ug/L		96	71 - 125
Tetrachloroethylene	50.0	43.63		ug/L		87	71 - 125
Toluene	50.0	46.83		ug/L		94	70 - 130
Trichloroethylene	50.0	47.47		ug/L		95	75 - 135
Vinyl chloride	50.0	49.86		ug/L		100	60 - 140
cis-1,3-Dichloropropylene	50.0	49.61		ug/L		99	74 - 125
1,2-trans-Dichloroethylene	50.0	49.19		ug/L		98	75 - 125
trans-1,3-Dichloropropylene	50.0	47.40		ug/L		95	66 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 144*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 860-119794/4
Matrix: Water
Analysis Batch: 119794

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0500	0.04688		mg/L		94	70 - 130	6	25
1,1,2,2-Tetrachloroethane	50.0	50.31		ug/L		101	74 - 125	8	25
1,1,2-Trichloroethane	50.0	48.20		ug/L		96	70 - 130	0	25
1,1-Dichloroethane	50.0	49.24		ug/L		98	70 - 130	5	25
1,1-Dichlorethylene	50.0	46.59		ug/L		93	50 - 150	5	25
1,2-Dibromoethane	50.0	46.20		ug/L		92	73 - 125	1	25
1,2-Dichloroethane	50.0	44.52		ug/L		89	72 - 130	4	25
1,2-Dichloropropane	50.0	48.45		ug/L		97	74 - 125	5	25
Methyl Ethyl Ketone	250	248.0		ug/L		99	60 - 140	2	25
2-Chloroethyl vinyl ether	50.0	46.12		ug/L		92	50 - 150	4	25
Acrolein	250	247.1		ug/L		99	60 - 140	6	25
Acrylonitrile	500	521.6		ug/L		104	60 - 140	3	25
Benzene	50.0	47.14		ug/L		94	75 - 125	5	25
Bromodichloromethane	50.0	45.63		ug/L		91	75 - 125	4	25

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-119794/4
Matrix: Water
Analysis Batch: 119794

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromoform	50.0	45.42		ug/L		91	70 - 130	0	25
Methyl bromide	50.0	56.82		ug/L		114	60 - 140	8	25
Carbon tetrachloride	50.0	45.82		ug/L		92	70 - 130	6	25
Chlorobenzene	50.0	45.70		ug/L		91	65 - 135	1	25
Chloroethane	50.0	49.10		ug/L		98	60 - 140	7	25
Chloroform	50.0	48.78		ug/L		98	70 - 121	4	25
Methyl chloride	50.0	46.24		ug/L		92	60 - 140	10	25
Dibromochloromethane	50.0	46.25		ug/L		93	73 - 125	1	25
Ethylbenzene	50.0	46.47		ug/L		93	75 - 125	2	25
Methylene Chloride	50.0	45.40		ug/L		91	71 - 125	5	25
Tetrachloroethylene	50.0	43.29		ug/L		87	71 - 125	1	25
Toluene	50.0	45.78		ug/L		92	70 - 130	2	25
Trichloroethylene	50.0	44.53		ug/L		89	75 - 135	6	25
Vinyl chloride	50.0	46.62		ug/L		93	60 - 140	7	25
cis-1,3-Dichloropropylene	50.0	47.66		ug/L		95	74 - 125	4	25
1,2-trans-Dichloroethylene	50.0	46.73		ug/L		93	75 - 125	5	25
trans-1,3-Dichloropropylene	50.0	47.60		ug/L		95	66 - 125	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 144*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-120077/1-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120077

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.39	U	5.70	1.39	ug/L		09/05/23 09:04	09/05/23 19:18	1
Acenaphthylene	<1.41	U	10.0	1.41	ug/L		09/05/23 09:04	09/05/23 19:18	1
Anthracene	<1.50	U	5.70	1.50	ug/L		09/05/23 09:04	09/05/23 19:18	1
Benzidine	<4.80	U	20.0	4.80	ug/L		09/05/23 09:04	09/05/23 19:18	1
Benzo[a]anthracene	<0.173	U	5.00	0.173	ug/L		09/05/23 09:04	09/05/23 19:18	1
3,4-Benzofluoranthene	<2.04	U	10.0	2.04	ug/L		09/05/23 09:04	09/05/23 19:18	1
Benzo[k]fluoranthene	<0.375	U	5.00	0.375	ug/L		09/05/23 09:04	09/05/23 19:18	1
Benzo[g,h,i]perylene	<2.68	U	10.0	2.68	ug/L		09/05/23 09:04	09/05/23 19:18	1
Benzo[a]pyrene	<0.364	U	5.00	0.364	ug/L		09/05/23 09:04	09/05/23 19:18	1
Butyl benzyl phthalate	<0.337	U	5.00	0.337	ug/L		09/05/23 09:04	09/05/23 19:18	1
Bis(2-chloroethoxy)methane	<1.76	U	10.0	1.76	ug/L		09/05/23 09:04	09/05/23 19:18	1
Bis(2-chloroethyl)ether	<2.16	U	10.0	2.16	ug/L		09/05/23 09:04	09/05/23 19:18	1
Bis(2-ethylhexyl) phthalate	<0.277	U	5.00	0.277	ug/L		09/05/23 09:04	09/05/23 19:18	1
4-Bromophenyl phenyl ether	<0.256	U	5.00	0.256	ug/L		09/05/23 09:04	09/05/23 19:18	1
2-Chloronaphthalene	<0.462	U	5.00	0.462	ug/L		09/05/23 09:04	09/05/23 19:18	1
4-Chlorophenyl phenyl ether	<1.28	U	10.0	1.28	ug/L		09/05/23 09:04	09/05/23 19:18	1
Chrysene	<0.222	U	5.00	0.222	ug/L		09/05/23 09:04	09/05/23 19:18	1
Dibenz(a,h)anthracene	<0.246	U	5.00	0.246	ug/L		09/05/23 09:04	09/05/23 19:18	1
1,2-Dichlorobenzene	<1.62	U	10.0	1.62	ug/L		09/05/23 09:04	09/05/23 19:18	1
1,3-Dichlorobenzene	<1.44	U	10.0	1.44	ug/L		09/05/23 09:04	09/05/23 19:18	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 860-120077/1-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120077

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<1.55	U	10.0	1.55	ug/L		09/05/23 09:04	09/05/23 19:18	1
3,3'-Dichlorobenzidine	<0.341	U	5.00	0.341	ug/L		09/05/23 09:04	09/05/23 19:18	1
Diethyl phthalate	<1.59	U	5.00	1.59	ug/L		09/05/23 09:04	09/05/23 19:18	1
Dimethyl phthalate	<0.299	U	2.50	0.299	ug/L		09/05/23 09:04	09/05/23 19:18	1
Di-n-butyl phthalate	<0.252	U	5.00	0.252	ug/L		09/05/23 09:04	09/05/23 19:18	1
Di-n-octyl phthalate	<0.373	U	5.00	0.373	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,4-Dinitrotoluene	<1.31	U	10.0	1.31	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,6-Dinitrotoluene	<1.61	U	5.00	1.61	ug/L		09/05/23 09:04	09/05/23 19:18	1
Fluoranthene	<1.59	U	5.00	1.59	ug/L		09/05/23 09:04	09/05/23 19:18	1
Fluorene	<1.63	U	5.00	1.63	ug/L		09/05/23 09:04	09/05/23 19:18	1
Hexachlorobenzene	<0.307	U	5.00	0.307	ug/L		09/05/23 09:04	09/05/23 19:18	1
Hexachlorobutadiene	<0.238	U	1.00	0.238	ug/L		09/05/23 09:04	09/05/23 19:18	1
Hexachlorocyclopentadiene	<4.58	U	10.0	4.58	ug/L		09/05/23 09:04	09/05/23 19:18	1
Hexachloroethane	<0.526	U	4.80	0.526	ug/L		09/05/23 09:04	09/05/23 19:18	1
Indeno[1,2,3-cd]pyrene	<2.29	U	10.0	2.29	ug/L		09/05/23 09:04	09/05/23 19:18	1
Isophorone	<1.64	U	5.00	1.64	ug/L		09/05/23 09:04	09/05/23 19:18	1
Naphthalene	<0.542	U	2.50	0.542	ug/L		09/05/23 09:04	09/05/23 19:18	1
Nitrobenzene	<1.66	U	5.00	1.66	ug/L		09/05/23 09:04	09/05/23 19:18	1
N-Nitrosodimethylamine	<2.02	U	10.0	2.02	ug/L		09/05/23 09:04	09/05/23 19:18	1
N-Nitrosodi-n-propylamine	<2.88	U	10.0	2.88	ug/L		09/05/23 09:04	09/05/23 19:18	1
N-Nitrosodiphenylamine	<1.81	U	10.0	1.81	ug/L		09/05/23 09:04	09/05/23 19:18	1
Phenanthrene	<1.42	U	10.0	1.42	ug/L		09/05/23 09:04	09/05/23 19:18	1
Pyrene	<0.178	U	5.00	0.178	ug/L		09/05/23 09:04	09/05/23 19:18	1
1,2,4-Trichlorobenzene	<1.61	U	5.00	1.61	ug/L		09/05/23 09:04	09/05/23 19:18	1
p-Chloro-m-cresol	<1.57	U	5.00	1.57	ug/L		09/05/23 09:04	09/05/23 19:18	1
2-Chlorophenol	<0.649	U	5.00	0.649	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,4-Dichlorophenol	<0.314	U	5.00	0.314	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,4-Dimethylphenol	<0.649	U	5.00	0.649	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,4-Dinitrophenol	<0.499	U	10.0	0.499	ug/L		09/05/23 09:04	09/05/23 19:18	1
4,6-Dinitro-o-cresol	<1.44	U	10.0	1.44	ug/L		09/05/23 09:04	09/05/23 19:18	1
2-Nitrophenol	<1.67	U	10.0	1.67	ug/L		09/05/23 09:04	09/05/23 19:18	1
4-Nitrophenol	<4.91	U	7.20	4.91	ug/L		09/05/23 09:04	09/05/23 19:18	1
Pentachlorophenol	<0.234	U	10.0	0.234	ug/L		09/05/23 09:04	09/05/23 19:18	1
Phenol	<0.423	U	4.50	0.423	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,4,6-Trichlorophenol	<1.42	U	5.00	1.42	ug/L		09/05/23 09:04	09/05/23 19:18	1
3 & 4 Methylphenol	<2.62	U	10.0	2.62	ug/L		09/05/23 09:04	09/05/23 19:18	1
2-Methylphenol	<1.62	U	10.0	1.62	ug/L		09/05/23 09:04	09/05/23 19:18	1
N-Nitrosodiethylamine	<1.75	U	10.0	1.75	ug/L		09/05/23 09:04	09/05/23 19:18	1
N-Nitrosodi-n-butylamine	<1.49	U	10.0	1.49	ug/L		09/05/23 09:04	09/05/23 19:18	1
Pentachlorobenzene	<1.07	U	10.0	1.07	ug/L		09/05/23 09:04	09/05/23 19:18	1
Pyridine	<2.64	U	10.0	2.64	ug/L		09/05/23 09:04	09/05/23 19:18	1
1,2,4,5-Tetrachlorobenzene	<1.32	U	10.0	1.32	ug/L		09/05/23 09:04	09/05/23 19:18	1
2,4,5-Trichlorophenol	<2.00	U	10.0	2.00	ug/L		09/05/23 09:04	09/05/23 19:18	1
Nonylphenol	<0.0100	U	0.0100	0.0100	mg/L		09/05/23 09:04	09/05/23 19:18	1
bis (2-chloroisopropyl) ether	<1.79	U	10.0	1.79	ug/L		09/05/23 09:04	09/05/23 19:18	1
1,2-Diphenylhydrazine (as Azobenzene)	<1.50	U	10.0	1.50	ug/L		09/05/23 09:04	09/05/23 19:18	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 860-120077/1-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120077

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	33		28 - 114	09/05/23 09:04	09/05/23 19:18	1
Phenol-d5 (Surr)	21		8 - 424	09/05/23 09:04	09/05/23 19:18	1
Nitrobenzene-d5 (Surr)	59		15 - 314	09/05/23 09:04	09/05/23 19:18	1
2-Fluorobiphenyl	56		29 - 112	09/05/23 09:04	09/05/23 19:18	1
2,4,6-Tribromophenol (Surr)	44		31 - 132	09/05/23 09:04	09/05/23 19:18	1
p-Terphenyl-d14 (Surr)	62		20 - 141	09/05/23 09:04	09/05/23 19:18	1

Lab Sample ID: LCS 860-120077/2-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120077

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	40.0	19.31	*-	ug/L		48	60 - 132
Acenaphthylene	40.0	19.38	*-	ug/L		48	54 - 126
Anthracene	40.0	22.45		ug/L		56	43 - 120
Benzidine	40.0	6.640	J *-	ug/L		17	25 - 125
Benzo[a]anthracene	40.0	22.87		ug/L		57	42 - 133
3,4-Benzofluoranthene	40.0	20.94		ug/L		52	42 - 140
Benzo[k]fluoranthene	40.0	21.35		ug/L		53	25 - 146
Benzo[g,h,i]perylene	40.0	22.21		ug/L		56	13 - 195
Benzo[a]pyrene	40.0	20.11		ug/L		50	32 - 148
Butyl benzyl phthalate	40.0	23.99		ug/L		60	12 - 140
Bis(2-chloroethoxy)methane	40.0	21.12		ug/L		53	49 - 165
Bis(2-chloroethyl)ether	40.0	18.11		ug/L		45	43 - 126
Bis(2-ethylhexyl) phthalate	40.0	27.33		ug/L		68	29 - 137
4-Bromophenyl phenyl ether	40.0	21.21	*-	ug/L		53	65 - 120
2-Chloronaphthalene	40.0	19.33	*-	ug/L		48	65 - 120
4-Chlorophenyl phenyl ether	40.0	21.59		ug/L		54	38 - 145
Chrysene	40.0	23.13		ug/L		58	44 - 140
Dibenz(a,h)anthracene	40.0	22.51		ug/L		56	16 - 200
1,2-Dichlorobenzene	40.0	15.75	*-	ug/L		39	60 - 140
1,3-Dichlorobenzene	40.0	15.22	*-	ug/L		38	60 - 140
1,4-Dichlorobenzene	40.0	15.84		ug/L		40	19 - 121
3,3'-Dichlorobenzidine	40.0	22.26		ug/L		56	18 - 213
Diethyl phthalate	40.0	21.70		ug/L		54	17 - 120
Dimethyl phthalate	40.0	21.06		ug/L		53	25 - 120
Di-n-butyl phthalate	40.0	23.59		ug/L		59	8 - 120
Di-n-octyl phthalate	40.0	23.77		ug/L		59	19 - 132
2,4-Dinitrotoluene	40.0	23.05		ug/L		58	48 - 127
2,6-Dinitrotoluene	40.0	23.29	*-	ug/L		58	68 - 137
Fluoranthene	40.0	22.87		ug/L		57	43 - 121
Fluorene	40.0	22.15	*-	ug/L		55	70 - 120
Hexachlorobenzene	40.0	22.29		ug/L		56	8 - 142
Hexachlorobutadiene	40.0	15.89		ug/L		40	38 - 120
Hexachlorocyclopentadiene	40.0	13.13	*-	ug/L		33	41 - 125
Hexachloroethane	40.0	15.02	*-	ug/L		38	55 - 120
Indeno[1,2,3-cd]pyrene	40.0	21.83		ug/L		55	13 - 151
Isophorone	40.0	22.03		ug/L		55	47 - 180

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-120077/2-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120077

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	40.0	19.09		ug/L		48	36 - 120
Nitrobenzene	40.0	20.64	*-	ug/L		52	54 - 158
N-Nitrosodimethylamine	40.0	10.70		ug/L		27	20 - 125
N-Nitrosodi-n-propylamine	40.0	20.03		ug/L		50	14 - 198
N-Nitrosodiphenylamine	40.0	22.98		ug/L		57	2 - 196
Phenanthrene	40.0	22.61	*-	ug/L		57	65 - 120
Pyrene	40.0	24.09	*-	ug/L		60	70 - 120
1,2,4-Trichlorobenzene	40.0	17.59	*-	ug/L		44	57 - 130
p-Chloro-m-cresol	40.0	22.41		ug/L		56	41 - 128
2-Chlorophenol	40.0	17.54		ug/L		44	36 - 120
2,4-Dichlorophenol	40.0	21.70		ug/L		54	52 - 122
2,4-Dimethylphenol	40.0	18.32		ug/L		46	42 - 120
2,4-Dinitrophenol	40.0	24.24		ug/L		61	12 - 173
4,6-Dinitro-o-cresol	40.0	21.70		ug/L		54	53 - 130
2-Nitrophenol	40.0	23.71		ug/L		59	45 - 167
4-Nitrophenol	40.0	11.69		ug/L		29	13 - 129
Pentachlorophenol	40.0	16.70		ug/L		42	38 - 152
Phenol	40.0	10.13		ug/L		25	17 - 120
2,4,6-Trichlorophenol	40.0	22.07		ug/L		55	52 - 129
3 & 4 Methylphenol	40.0	18.44		ug/L		46	14 - 176
2-Methylphenol	40.0	13.92		ug/L		35	14 - 176
N-Nitrosodiethylamine	40.0	20.19		ug/L		50	30 - 160
N-Nitrosodi-n-butylamine	40.0	23.45		ug/L		59	33 - 141
Pentachlorobenzene	40.0	19.38		ug/L		48	25 - 131
Pyridine	40.0	4.204	J	ug/L		11	5 - 94
1,2,4,5-Tetrachlorobenzene	40.0	17.50		ug/L		44	41 - 125
2,4,5-Trichlorophenol	40.0	22.18		ug/L		55	35 - 111
bis (2-chloroisopropyl) ether	40.0	16.79	*-	ug/L		42	63 - 139
1,2-Diphenylhydrazine (as Azobenzene)	40.0	21.48		ug/L		54	28 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*31*		*28 - 114*
Phenol-d5 (Surr)	*24*		*8 - 424*
Nitrobenzene-d5 (Surr)	*54*		*15 - 314*
2-Fluorobiphenyl	*50*		*29 - 112*
2,4,6-Tribromophenol (Surr)	*49*		*31 - 132*
p-Terphenyl-d14 (Surr)	*61*		*20 - 141*

Lab Sample ID: LCSD 860-120077/3-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120077

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	40.0	18.83	*-	ug/L		47	60 - 132	2	29
Acenaphthylene	40.0	18.97	*-	ug/L		47	54 - 126	2	30
Anthracene	40.0	21.63		ug/L		54	43 - 120	4	30
Benzidine	40.0	8.272	J *-	ug/L		21	25 - 125	22	30
Benzo[a]anthracene	40.0	22.08		ug/L		55	42 - 133	4	30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-120077/3-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120077

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,4-Benzofluoranthene	40.0	20.11		ug/L		50	42 - 140	4	30
Benzo[k]fluoranthene	40.0	21.04		ug/L		53	25 - 146	1	30
Benzo[g,h,i]perylene	40.0	20.79		ug/L		52	13 - 195	7	30
Benzo[a]pyrene	40.0	18.67		ug/L		47	32 - 148	7	30
Butyl benzyl phthalate	40.0	24.38		ug/L		61	12 - 140	2	30
Bis(2-chloroethoxy)methane	40.0	20.39		ug/L		51	49 - 165	3	30
Bis(2-chloroethyl)ether	40.0	18.40		ug/L		46	43 - 126	2	30
Bis(2-ethylhexyl) phthalate	40.0	25.76		ug/L		64	29 - 137	6	30
4-Bromophenyl phenyl ether	40.0	20.14	*-	ug/L		50	65 - 120	5	26
2-Chloronaphthalene	40.0	19.37	*-	ug/L		48	65 - 120	0	15
4-Chlorophenyl phenyl ether	40.0	19.26		ug/L		48	38 - 145	11	30
Chrysene	40.0	21.16		ug/L		53	44 - 140	9	30
Dibenz(a,h)anthracene	40.0	20.73		ug/L		52	16 - 200	8	30
1,2-Dichlorobenzene	40.0	16.42	*-	ug/L		41	60 - 140	4	30
1,3-Dichlorobenzene	40.0	16.65	*-	ug/L		42	60 - 140	9	30
1,4-Dichlorobenzene	40.0	16.96		ug/L		42	19 - 121	7	30
3,3'-Dichlorobenzidine	40.0	20.66		ug/L		52	18 - 213	7	30
Diethyl phthalate	40.0	20.07		ug/L		50	17 - 120	8	30
Dimethyl phthalate	40.0	19.18		ug/L		48	25 - 120	9	30
Di-n-butyl phthalate	40.0	23.28		ug/L		58	8 - 120	1	28
Di-n-octyl phthalate	40.0	23.88		ug/L		60	19 - 132	0	30
2,4-Dinitrotoluene	40.0	21.52		ug/L		54	48 - 127	7	25
2,6-Dinitrotoluene	40.0	21.74	*-	ug/L		54	68 - 137	7	29
Fluoranthene	40.0	20.87		ug/L		52	43 - 121	9	30
Fluorene	40.0	19.80	*-	ug/L		49	70 - 120	11	23
Hexachlorobenzene	40.0	20.91		ug/L		52	8 - 142	6	30
Hexachlorobutadiene	40.0	16.19		ug/L		40	38 - 120	2	30
Hexachlorocyclopentadiene	40.0	13.96	*-	ug/L		35	41 - 125	6	30
Hexachloroethane	40.0	16.10	*-	ug/L		40	55 - 120	7	30
Indeno[1,2,3-cd]pyrene	40.0	19.85		ug/L		50	13 - 151	10	30
Isophorone	40.0	21.01		ug/L		53	47 - 180	5	30
Naphthalene	40.0	19.08		ug/L		48	36 - 120	0	30
Nitrobenzene	40.0	20.08	*-	ug/L		50	54 - 158	3	30
N-Nitrosodimethylamine	40.0	12.10		ug/L		30	20 - 125	12	30
N-Nitrosodi-n-propylamine	40.0	19.62		ug/L		49	14 - 198	2	30
N-Nitrosodiphenylamine	40.0	21.43		ug/L		54	2 - 196	7	30
Phenanthrene	40.0	22.07	*-	ug/L		55	65 - 120	2	30
Pyrene	40.0	23.17	*-	ug/L		58	70 - 120	4	30
1,2,4-Trichlorobenzene	40.0	17.93	*-	ug/L		45	57 - 130	2	30
p-Chloro-m-cresol	40.0	21.68		ug/L		54	41 - 128	3	30
2-Chlorophenol	40.0	18.38		ug/L		46	36 - 120	5	30
2,4-Dichlorophenol	40.0	20.64		ug/L		52	52 - 122	5	30
2,4-Dimethylphenol	40.0	17.49		ug/L		44	42 - 120	5	30
2,4-Dinitrophenol	40.0	22.34		ug/L		56	12 - 173	8	30
4,6-Dinitro-o-cresol	40.0	20.42	*-	ug/L		51	53 - 130	6	30
2-Nitrophenol	40.0	23.44		ug/L		59	45 - 167	1	30
4-Nitrophenol	40.0	10.77		ug/L		27	13 - 129	8	30
Pentachlorophenol	40.0	16.99		ug/L		42	38 - 152	2	30
Phenol	40.0	9.952		ug/L		25	17 - 120	2	30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-120077/3-A
Matrix: Water
Analysis Batch: 120189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120077

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	40.0	21.23		ug/L		53	52 - 129	4	30
3 & 4 Methylphenol	40.0	17.98		ug/L		45	14 - 176	3	30
2-Methylphenol	40.0	13.35		ug/L		33	14 - 176	4	30
N-Nitrosodiethylamine	40.0	20.33		ug/L		51	30 - 160	1	30
N-Nitrosodi-n-butylamine	40.0	20.87		ug/L		52	33 - 141	12	30
Pentachlorobenzene	40.0	18.13		ug/L		45	25 - 131	7	30
Pyridine	40.0	5.848	J *1	ug/L		15	5 - 94	33	30
1,2,4,5-Tetrachlorobenzene	40.0	17.94		ug/L		45	41 - 125	2	30
2,4,5-Trichlorophenol	40.0	20.86		ug/L		52	35 - 111	6	30
bis (2-chloroisopropyl) ether	40.0	17.03	*-	ug/L		43	63 - 139	1	30
1,2-Diphenylhydrazine (as Azobenzene)	40.0	20.61		ug/L		52	28 - 136	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol (Surr)	*32*		*28 - 114*
Phenol-d5 (Surr)	*22*		*8 - 424*
Nitrobenzene-d5 (Surr)	*52*		*15 - 314*
2-Fluorobiphenyl	*51*		*29 - 112*
2,4,6-Tribromophenol (Surr)	*50*		*31 - 132*
p-Terphenyl-d14 (Surr)	*60*		*20 - 141*

Lab Sample ID: MB 860-120537/1-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120537

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.39	U	5.70	1.39	ug/L		09/07/23 10:54	09/07/23 17:20	1
Acenaphthylene	<1.41	U	10.0	1.41	ug/L		09/07/23 10:54	09/07/23 17:20	1
Anthracene	<1.50	U	5.70	1.50	ug/L		09/07/23 10:54	09/07/23 17:20	1
Benzidine	<4.80	U	20.0	4.80	ug/L		09/07/23 10:54	09/07/23 17:20	1
Benzo[a]anthracene	<0.173	U	5.00	0.173	ug/L		09/07/23 10:54	09/07/23 17:20	1
3,4-Benzofluoranthene	<2.04	U	10.0	2.04	ug/L		09/07/23 10:54	09/07/23 17:20	1
Benzo[k]fluoranthene	<0.375	U	5.00	0.375	ug/L		09/07/23 10:54	09/07/23 17:20	1
Benzo[g,h,i]perylene	<2.68	U	10.0	2.68	ug/L		09/07/23 10:54	09/07/23 17:20	1
Benzo[a]pyrene	<0.364	U	5.00	0.364	ug/L		09/07/23 10:54	09/07/23 17:20	1
Butyl benzyl phthalate	<0.337	U	5.00	0.337	ug/L		09/07/23 10:54	09/07/23 17:20	1
Bis(2-chloroethoxy)methane	<1.76	U	10.0	1.76	ug/L		09/07/23 10:54	09/07/23 17:20	1
Bis(2-chloroethyl)ether	<2.16	U	10.0	2.16	ug/L		09/07/23 10:54	09/07/23 17:20	1
Bis(2-ethylhexyl) phthalate	<0.277	U	5.00	0.277	ug/L		09/07/23 10:54	09/07/23 17:20	1
4-Bromophenyl phenyl ether	<0.256	U	5.00	0.256	ug/L		09/07/23 10:54	09/07/23 17:20	1
2-Chloronaphthalene	<0.462	U	5.00	0.462	ug/L		09/07/23 10:54	09/07/23 17:20	1
4-Chlorophenyl phenyl ether	<1.28	U	10.0	1.28	ug/L		09/07/23 10:54	09/07/23 17:20	1
Chrysene	<0.222	U	5.00	0.222	ug/L		09/07/23 10:54	09/07/23 17:20	1
Dibenz(a,h)anthracene	<0.246	U	5.00	0.246	ug/L		09/07/23 10:54	09/07/23 17:20	1
1,2-Dichlorobenzene	<1.62	U	10.0	1.62	ug/L		09/07/23 10:54	09/07/23 17:20	1
1,3-Dichlorobenzene	<1.44	U	10.0	1.44	ug/L		09/07/23 10:54	09/07/23 17:20	1
1,4-Dichlorobenzene	<1.55	U	10.0	1.55	ug/L		09/07/23 10:54	09/07/23 17:20	1
3,3'-Dichlorobenzidine	<0.341	U	5.00	0.341	ug/L		09/07/23 10:54	09/07/23 17:20	1
Diethyl phthalate	<1.59	U	5.00	1.59	ug/L		09/07/23 10:54	09/07/23 17:20	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 860-120537/1-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120537

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	<0.299	U	2.50	0.299	ug/L		09/07/23 10:54	09/07/23 17:20	1
Di-n-butyl phthalate	<0.252	U	5.00	0.252	ug/L		09/07/23 10:54	09/07/23 17:20	1
Di-n-octyl phthalate	<0.373	U	5.00	0.373	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,4-Dinitrotoluene	<1.31	U	10.0	1.31	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,6-Dinitrotoluene	<1.61	U	5.00	1.61	ug/L		09/07/23 10:54	09/07/23 17:20	1
Fluoranthene	<1.59	U	5.00	1.59	ug/L		09/07/23 10:54	09/07/23 17:20	1
Fluorene	<1.63	U	5.00	1.63	ug/L		09/07/23 10:54	09/07/23 17:20	1
Hexachlorobenzene	<0.307	U	5.00	0.307	ug/L		09/07/23 10:54	09/07/23 17:20	1
Hexachlorobutadiene	<0.238	U	1.00	0.238	ug/L		09/07/23 10:54	09/07/23 17:20	1
Hexachlorocyclopentadiene	<4.58	U	10.0	4.58	ug/L		09/07/23 10:54	09/07/23 17:20	1
Hexachloroethane	<0.526	U	4.80	0.526	ug/L		09/07/23 10:54	09/07/23 17:20	1
Indeno[1,2,3-cd]pyrene	<2.29	U	10.0	2.29	ug/L		09/07/23 10:54	09/07/23 17:20	1
Isophorone	<1.64	U	5.00	1.64	ug/L		09/07/23 10:54	09/07/23 17:20	1
Naphthalene	<0.542	U	2.50	0.542	ug/L		09/07/23 10:54	09/07/23 17:20	1
Nitrobenzene	<1.66	U	5.00	1.66	ug/L		09/07/23 10:54	09/07/23 17:20	1
N-Nitrosodimethylamine	<2.02	U	10.0	2.02	ug/L		09/07/23 10:54	09/07/23 17:20	1
N-Nitrosodi-n-propylamine	<2.88	U	10.0	2.88	ug/L		09/07/23 10:54	09/07/23 17:20	1
N-Nitrosodiphenylamine	<1.81	U	10.0	1.81	ug/L		09/07/23 10:54	09/07/23 17:20	1
Phenanthrene	<1.42	U	10.0	1.42	ug/L		09/07/23 10:54	09/07/23 17:20	1
Pyrene	<0.178	U	5.00	0.178	ug/L		09/07/23 10:54	09/07/23 17:20	1
1,2,4-Trichlorobenzene	<1.61	U	5.00	1.61	ug/L		09/07/23 10:54	09/07/23 17:20	1
p-Chloro-m-cresol	<1.57	U	5.00	1.57	ug/L		09/07/23 10:54	09/07/23 17:20	1
2-Chlorophenol	<0.649	U	5.00	0.649	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,4-Dichlorophenol	<0.314	U	5.00	0.314	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,4-Dimethylphenol	<0.649	U	5.00	0.649	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,4-Dinitrophenol	<0.499	U	10.0	0.499	ug/L		09/07/23 10:54	09/07/23 17:20	1
4,6-Dinitro-o-cresol	<1.44	U	10.0	1.44	ug/L		09/07/23 10:54	09/07/23 17:20	1
2-Nitrophenol	<1.67	U	10.0	1.67	ug/L		09/07/23 10:54	09/07/23 17:20	1
4-Nitrophenol	<4.91	U	7.20	4.91	ug/L		09/07/23 10:54	09/07/23 17:20	1
Pentachlorophenol	<0.234	U	10.0	0.234	ug/L		09/07/23 10:54	09/07/23 17:20	1
Phenol	<0.423	U	4.50	0.423	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,4,6-Trichlorophenol	<1.42	U	5.00	1.42	ug/L		09/07/23 10:54	09/07/23 17:20	1
3 & 4 Methylphenol	<2.62	U	10.0	2.62	ug/L		09/07/23 10:54	09/07/23 17:20	1
2-Methylphenol	<1.62	U	10.0	1.62	ug/L		09/07/23 10:54	09/07/23 17:20	1
N-Nitrosodiethylamine	<1.75	U	10.0	1.75	ug/L		09/07/23 10:54	09/07/23 17:20	1
N-Nitrosodi-n-butylamine	<1.49	U	10.0	1.49	ug/L		09/07/23 10:54	09/07/23 17:20	1
Pentachlorobenzene	<1.07	U	10.0	1.07	ug/L		09/07/23 10:54	09/07/23 17:20	1
Pyridine	<2.64	U	10.0	2.64	ug/L		09/07/23 10:54	09/07/23 17:20	1
1,2,4,5-Tetrachlorobenzene	<1.32	U	10.0	1.32	ug/L		09/07/23 10:54	09/07/23 17:20	1
2,4,5-Trichlorophenol	<2.00	U	10.0	2.00	ug/L		09/07/23 10:54	09/07/23 17:20	1
Nonylphenol	<0.0100	U	0.0100	0.0100	mg/L		09/07/23 10:54	09/07/23 17:20	1
bis (2-chloroisopropyl) ether	<1.79	U	10.0	1.79	ug/L		09/07/23 10:54	09/07/23 17:20	1
1,2-Diphenylhydrazine (as Azobenzene)	<1.50	U	10.0	1.50	ug/L		09/07/23 10:54	09/07/23 17:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*48*		*28 - 114*	*09/07/23 10:54*	*09/07/23 17:20*	*1*
Phenol-d5 (Surr)	*30*		*8 - 424*	*09/07/23 10:54*	*09/07/23 17:20*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 860-120537/1-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120537

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	75		15 - 314	09/07/23 10:54	09/07/23 17:20	1
2-Fluorobiphenyl	77		29 - 112	09/07/23 10:54	09/07/23 17:20	1
2,4,6-Tribromophenol (Surr)	62		31 - 132	09/07/23 10:54	09/07/23 17:20	1
p-Terphenyl-d14 (Surr)	86		20 - 141	09/07/23 10:54	09/07/23 17:20	1

Lab Sample ID: LCS 860-120537/2-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	40.0	27.65		ug/L		69	60 - 132
Acenaphthylene	40.0	28.90		ug/L		72	54 - 126
Anthracene	40.0	32.78		ug/L		82	43 - 120
Benzidine	40.0	17.51	J	ug/L		44	25 - 125
Benzo[a]anthracene	40.0	32.68		ug/L		82	42 - 133
3,4-Benzofluoranthene	40.0	33.59		ug/L		84	42 - 140
Benzo[k]fluoranthene	40.0	32.71		ug/L		82	25 - 146
Benzo[g,h,i]perylene	40.0	32.40		ug/L		81	13 - 195
Benzo[a]pyrene	40.0	32.68		ug/L		82	32 - 148
Butyl benzyl phthalate	40.0	29.85		ug/L		75	12 - 140
Bis(2-chloroethoxy)methane	40.0	27.94		ug/L		70	49 - 165
Bis(2-chloroethyl)ether	40.0	25.94		ug/L		65	43 - 126
Bis(2-ethylhexyl) phthalate	40.0	29.33		ug/L		73	29 - 137
4-Bromophenyl phenyl ether	40.0	30.96		ug/L		77	65 - 120
2-Chloronaphthalene	40.0	28.63		ug/L		72	65 - 120
4-Chlorophenyl phenyl ether	40.0	28.52		ug/L		71	38 - 145
Chrysene	40.0	32.20		ug/L		80	44 - 140
Dibenz(a,h)anthracene	40.0	32.44		ug/L		81	16 - 200
1,2-Dichlorobenzene	40.0	22.39	*-	ug/L		56	60 - 140
1,3-Dichlorobenzene	40.0	21.34	*-	ug/L		53	60 - 140
1,4-Dichlorobenzene	40.0	21.40		ug/L		54	19 - 121
3,3'-Dichlorobenzidine	40.0	29.97		ug/L		75	18 - 213
Diethyl phthalate	40.0	30.61		ug/L		77	17 - 120
Dimethyl phthalate	40.0	29.37		ug/L		73	25 - 120
Di-n-butyl phthalate	40.0	30.98		ug/L		77	8 - 120
Di-n-octyl phthalate	40.0	34.33		ug/L		86	19 - 132
2,4-Dinitrotoluene	40.0	28.63		ug/L		72	48 - 127
2,6-Dinitrotoluene	40.0	31.33		ug/L		78	68 - 137
Fluoranthene	40.0	34.16		ug/L		85	43 - 121
Fluorene	40.0	29.85		ug/L		75	70 - 120
Hexachlorobenzene	40.0	30.49		ug/L		76	8 - 142
Hexachlorobutadiene	40.0	21.62		ug/L		54	38 - 120
Hexachlorocyclopentadiene	40.0	20.76		ug/L		52	41 - 125
Hexachloroethane	40.0	20.56	*-	ug/L		51	55 - 120
Indeno[1,2,3-cd]pyrene	40.0	32.47		ug/L		81	13 - 151
Isophorone	40.0	29.38		ug/L		73	47 - 180
Naphthalene	40.0	25.27		ug/L		63	36 - 120
Nitrobenzene	40.0	28.43		ug/L		71	54 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-120537/2-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Nitrosodimethylamine	40.0	17.12		ug/L		43	20 - 125
N-Nitrosodi-n-propylamine	40.0	28.70		ug/L		72	14 - 198
N-Nitrosodiphenylamine	40.0	32.33		ug/L		81	2 - 196
Phenanthrene	40.0	31.49		ug/L		79	65 - 120
Pyrene	40.0	33.05		ug/L		83	70 - 120
1,2,4-Trichlorobenzene	40.0	23.63		ug/L		59	57 - 130
p-Chloro-m-cresol	40.0	28.10		ug/L		70	41 - 128
2-Chlorophenol	40.0	25.18		ug/L		63	36 - 120
2,4-Dichlorophenol	40.0	28.40		ug/L		71	52 - 122
2,4-Dimethylphenol	40.0	27.01		ug/L		68	42 - 120
2,4-Dinitrophenol	40.0	28.13		ug/L		70	12 - 173
4,6-Dinitro-o-cresol	40.0	30.41		ug/L		76	53 - 130
2-Nitrophenol	40.0	27.95		ug/L		70	45 - 167
4-Nitrophenol	40.0	16.36		ug/L		41	13 - 129
Pentachlorophenol	40.0	30.94		ug/L		77	38 - 152
Phenol	40.0	14.02		ug/L		35	17 - 120
2,4,6-Trichlorophenol	40.0	29.06		ug/L		73	52 - 129
3 & 4 Methylphenol	40.0	22.50		ug/L		56	14 - 176
2-Methylphenol	40.0	23.98		ug/L		60	14 - 176
N-Nitrosodiethylamine	40.0	26.35		ug/L		66	30 - 160
N-Nitrosodi-n-butylamine	40.0	28.06		ug/L		70	33 - 141
Pentachlorobenzene	40.0	27.93		ug/L		70	25 - 131
Pyridine	40.0	13.72		ug/L		34	5 - 94
1,2,4,5-Tetrachlorobenzene	40.0	25.81		ug/L		65	41 - 125
2,4,5-Trichlorophenol	40.0	29.59		ug/L		74	35 - 111
bis (2-chloroisopropyl) ether	40.0	26.47		ug/L		66	63 - 139
1,2-Diphenylhydrazine (as Azobenzene)	40.0	33.21		ug/L		83	28 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*46*		*28 - 114*
Phenol-d5 (Surr)	*33*		*8 - 424*
Nitrobenzene-d5 (Surr)	*77*		*15 - 314*
2-Fluorobiphenyl	*72*		*29 - 112*
2,4,6-Tribromophenol (Surr)	*84*		*31 - 132*
p-Terphenyl-d14 (Surr)	*84*		*20 - 141*

Lab Sample ID: LCSD 860-120537/3-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120537

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	40.0	28.18		ug/L		70	60 - 132	2	29
Acenaphthylene	40.0	29.63		ug/L		74	54 - 126	3	30
Anthracene	40.0	33.13		ug/L		83	43 - 120	1	30
Benzidine	40.0	14.42	J	ug/L		36	25 - 125	19	30
Benzo[a]anthracene	40.0	32.78		ug/L		82	42 - 133	0	30
3,4-Benzofluoranthene	40.0	34.61		ug/L		87	42 - 140	3	30
Benzo[k]fluoranthene	40.0	32.56		ug/L		81	25 - 146	0	30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-120537/3-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120537

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene	40.0	31.78		ug/L		79	13 - 195	2	30
Benzo[a]pyrene	40.0	32.59		ug/L		81	32 - 148	0	30
Butyl benzyl phthalate	40.0	30.00		ug/L		75	12 - 140	1	30
Bis(2-chloroethoxy)methane	40.0	29.07		ug/L		73	49 - 165	4	30
Bis(2-chloroethyl)ether	40.0	26.94		ug/L		67	43 - 126	4	30
Bis(2-ethylhexyl) phthalate	40.0	29.70		ug/L		74	29 - 137	1	30
4-Bromophenyl phenyl ether	40.0	31.08		ug/L		78	65 - 120	0	26
2-Chloronaphthalene	40.0	28.92		ug/L		72	65 - 120	1	15
4-Chlorophenyl phenyl ether	40.0	28.73		ug/L		72	38 - 145	1	30
Chrysene	40.0	32.29		ug/L		81	44 - 140	0	30
Dibenz(a,h)anthracene	40.0	32.13		ug/L		80	16 - 200	1	30
1,2-Dichlorobenzene	40.0	22.66	*-	ug/L		57	60 - 140	1	30
1,3-Dichlorobenzene	40.0	21.77	*-	ug/L		54	60 - 140	2	30
1,4-Dichlorobenzene	40.0	21.92		ug/L		55	19 - 121	2	30
3,3'-Dichlorobenzidine	40.0	29.84		ug/L		75	18 - 213	0	30
Diethyl phthalate	40.0	30.33		ug/L		76	17 - 120	1	30
Dimethyl phthalate	40.0	29.83		ug/L		75	25 - 120	2	30
Di-n-butyl phthalate	40.0	30.90		ug/L		77	8 - 120	0	28
Di-n-octyl phthalate	40.0	34.68		ug/L		87	19 - 132	1	30
2,4-Dinitrotoluene	40.0	28.29		ug/L		71	48 - 127	1	25
2,6-Dinitrotoluene	40.0	31.73		ug/L		79	68 - 137	1	29
Fluoranthene	40.0	33.70		ug/L		84	43 - 121	1	30
Fluorene	40.0	29.89		ug/L		75	70 - 120	0	23
Hexachlorobenzene	40.0	31.40		ug/L		79	8 - 142	3	30
Hexachlorobutadiene	40.0	21.58		ug/L		54	38 - 120	0	30
Hexachlorocyclopentadiene	40.0	23.80		ug/L		60	41 - 125	14	30
Hexachloroethane	40.0	20.56	*-	ug/L		51	55 - 120	0	30
Indeno[1,2,3-cd]pyrene	40.0	32.61		ug/L		82	13 - 151	0	30
Isophorone	40.0	30.04		ug/L		75	47 - 180	2	30
Naphthalene	40.0	25.80		ug/L		65	36 - 120	2	30
Nitrobenzene	40.0	29.66		ug/L		74	54 - 158	4	30
N-Nitrosodimethylamine	40.0	16.67		ug/L		42	20 - 125	3	30
N-Nitrosodi-n-propylamine	40.0	28.90		ug/L		72	14 - 198	1	30
N-Nitrosodiphenylamine	40.0	33.25		ug/L		83	2 - 196	3	30
Phenanthrene	40.0	31.53		ug/L		79	65 - 120	0	30
Pyrene	40.0	33.79		ug/L		84	70 - 120	2	30
1,2,4-Trichlorobenzene	40.0	23.69		ug/L		59	57 - 130	0	30
p-Chloro-m-cresol	40.0	28.57		ug/L		71	41 - 128	2	30
2-Chlorophenol	40.0	25.52		ug/L		64	36 - 120	1	30
2,4-Dichlorophenol	40.0	29.03		ug/L		73	52 - 122	2	30
2,4-Dimethylphenol	40.0	27.02		ug/L		68	42 - 120	0	30
2,4-Dinitrophenol	40.0	29.79		ug/L		74	12 - 173	6	30
4,6-Dinitro-o-cresol	40.0	31.99		ug/L		80	53 - 130	5	30
2-Nitrophenol	40.0	30.06		ug/L		75	45 - 167	7	30
4-Nitrophenol	40.0	15.23		ug/L		38	13 - 129	7	30
Pentachlorophenol	40.0	30.90		ug/L		77	38 - 152	0	30
Phenol	40.0	13.60		ug/L		34	17 - 120	3	30
2,4,6-Trichlorophenol	40.0	30.79		ug/L		77	52 - 129	6	30
3 & 4 Methylphenol	40.0	22.45		ug/L		56	14 - 176	0	30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-120537/3-A
Matrix: Water
Analysis Batch: 120468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120537

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylphenol	40.0	23.91		ug/L		60	14 - 176	0	30
N-Nitrosodiethylamine	40.0	27.70		ug/L		69	30 - 160	5	30
N-Nitrosodi-n-butylamine	40.0	27.50		ug/L		69	33 - 141	2	30
Pentachlorobenzene	40.0	28.18		ug/L		70	25 - 131	1	30
Pyridine	40.0	12.03		ug/L		30	5 - 94	13	30
1,2,4,5-Tetrachlorobenzene	40.0	25.85		ug/L		65	41 - 125	0	30
2,4,5-Trichlorophenol	40.0	30.58		ug/L		76	35 - 111	3	30
bis (2-chloroisopropyl) ether	40.0	27.12		ug/L		68	63 - 139	2	30
1,2-Diphenylhydrazine (as Azobenzene)	40.0	34.00		ug/L		85	28 - 136	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol (Surr)	*45*		*28 - 114*
Phenol-d5 (Surr)	*33*		*8 - 424*
Nitrobenzene-d5 (Surr)	*78*		*15 - 314*
2-Fluorobiphenyl	*73*		*29 - 112*
2,4,6-Tribromophenol (Surr)	*83*		*31 - 132*
p-Terphenyl-d14 (Surr)	*81*		*20 - 141*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 860-120254/1-A
Matrix: Water
Analysis Batch: 120298

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicofol	<0.0500	U	0.100	0.0500	ug/L		09/06/23 06:38	09/06/23 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*107*		*15 - 136*	*09/06/23 06:38*	*09/06/23 12:08*	*1*
Tetrachloro-m-xylene (Surr)	*98*		*18 - 126*	*09/06/23 06:38*	*09/06/23 12:08*	*1*

Lab Sample ID: LCS 860-120254/2-A
Matrix: Water
Analysis Batch: 120298

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
alpha-BHC	0.100	0.1099		ug/L		110	37 - 140
gamma-BHC (Lindane)	0.100	0.1080		ug/L		108	34 - 140
Endrin aldehyde	0.100	0.09377		ug/L		94	60 - 130
delta-BHC	0.100	0.07733	J	ug/L		77	19 - 140
Aldrin	0.100	0.1093		ug/L		109	42 - 140
Endosulfan sulfate	0.100	0.1165		ug/L		117	26 - 144
Endosulfan I	0.100	0.1221		ug/L		122	45 - 153
Endrin	0.100	0.1135		ug/L		114	30 - 147
Dieldrin	0.100	0.1161		ug/L		116	36 - 146
4,4'-DDT	0.100	0.1292		ug/L		129	25 - 160
Endosulfan II	0.100	0.1227		ug/L		123	22 - 171
beta-BHC	0.100	0.1173		ug/L		117	17 - 147

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCS 860-120254/2-A
Matrix: Water
Analysis Batch: 120298

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.100	0.1287		ug/L		129	31 - 141
4,4'-DDE	0.100	0.1195		ug/L		119	30 - 145
Heptachlor	0.100	0.1132		ug/L		113	34 - 140
Heptachlor epoxide	0.100	0.1156		ug/L		116	37 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*125*		*15 - 136*
Tetrachloro-m-xylene (Surr)	*98*		*18 - 126*

Lab Sample ID: LCSD 860-120254/3-A
Matrix: Water
Analysis Batch: 120298

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120254

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
alpha-BHC	0.100	0.09876		ug/L		99	37 - 140	11	30
gamma-BHC (Lindane)	0.100	0.09807		ug/L		98	34 - 140	10	30
Endrin aldehyde	0.100	0.08080		ug/L		81	60 - 130	15	30
delta-BHC	0.100	0.07168	J	ug/L		72	19 - 140	8	30
Aldrin	0.100	0.09852		ug/L		99	42 - 140	10	30
Endosulfan sulfate	0.100	0.1078		ug/L		108	26 - 144	8	30
Endosulfan I	0.100	0.1125		ug/L		113	45 - 153	8	30
Endrin	0.100	0.1058		ug/L		106	30 - 147	7	30
Dieldrin	0.100	0.1065		ug/L		107	36 - 146	9	30
4,4'-DDT	0.100	0.1171		ug/L		117	25 - 160	10	30
Endosulfan II	0.100	0.1121		ug/L		112	22 - 171	9	30
beta-BHC	0.100	0.1126		ug/L		113	17 - 147	4	30
4,4'-DDD	0.100	0.1171		ug/L		117	31 - 141	9	30
4,4'-DDE	0.100	0.1067		ug/L		107	30 - 145	11	30
Heptachlor	0.100	0.1012		ug/L		101	34 - 140	11	30
Heptachlor epoxide	0.100	0.1028		ug/L		103	37 - 142	12	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*118*		*15 - 136*
Tetrachloro-m-xylene (Surr)	*92*		*18 - 126*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 860-120254/1-A
Matrix: Water
Analysis Batch: 120371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 20:06	1
PCB-1221	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 20:06	1
PCB-1232	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 20:06	1
PCB-1242	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 20:06	1
PCB-1248	<0.0000125	U	0.000100	0.0000125	mg/L		09/06/23 06:38	09/06/23 20:06	1
PCB-1254	<0.00000780	U	0.000100	0.0000078 0	mg/L		09/06/23 06:38	09/06/23 20:06	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 860-120254/1-A
Matrix: Water
Analysis Batch: 120371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	<0.00000780	U	0.000100	0.0000078 0	mg/L		09/06/23 06:38	09/06/23 20:06	1
Polychlorinated biphenyls, Total	<0.000100	U	0.000100	0.000100	mg/L		09/06/23 06:38	09/06/23 20:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*105*		*18 - 126*	*09/06/23 06:38*	*09/06/23 20:06*	*1*
DCB Decachlorobiphenyl (Surr)	*171*	*S1+*	*15 - 136*	*09/06/23 06:38*	*09/06/23 20:06*	*1*

Lab Sample ID: LCS 860-120254/4-A
Matrix: Water
Analysis Batch: 120371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.00100	0.0009143		mg/L		91	61 - 103
PCB-1260	0.00100	0.001162		mg/L		116	37 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*115*		*18 - 126*
DCB Decachlorobiphenyl (Surr)	*194*	*S1+*	*15 - 136*

Lab Sample ID: LCSD 860-120254/5-A
Matrix: Water
Analysis Batch: 120371

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120254

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.00100	0.0007913		mg/L		79	61 - 103	14	24
PCB-1260	0.00100	0.001054		mg/L		105	37 - 130	10	28

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*93*		*18 - 126*
DCB Decachlorobiphenyl (Surr)	*191*	*S1+*	*15 - 136*

Method: 615 - Herbicides (GC)

Lab Sample ID: MB 860-120210/1-A
Matrix: Water
Analysis Batch: 120270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120210

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<0.0423	U	0.200	0.0423	ug/L		09/05/23 16:52	09/06/23 10:23	1
2,4-D	<0.0540	U	0.200	0.0540	ug/L		09/05/23 16:52	09/06/23 10:23	1
Hexachlorophene	<0.000810	U	0.00501	0.000810	mg/L		09/05/23 16:52	09/06/23 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*127*		*45 - 150*	*09/05/23 16:52*	*09/06/23 10:23*	*1*

Method: 615 - Herbicides (GC) (Continued)

Lab Sample ID: LCS 860-120210/2-A
Matrix: Water
Analysis Batch: 120270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120210

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	2.02	2.194		ug/L		109	55 - 140
2,4-D	2.02	2.478		ug/L		123	55 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*125*		*45 - 150*

Lab Sample ID: LCS 860-120210/4-A
Matrix: Water
Analysis Batch: 120270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120210

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorophene	0.00800	0.007979		mg/L		100	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*112*		*45 - 150*

Lab Sample ID: LCSD 860-120210/3-A
Matrix: Water
Analysis Batch: 120270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120210

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	2.01	2.042		ug/L		102	55 - 140	7	25
2,4-D	2.01	2.310		ug/L		115	55 - 145	7	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*132*		*45 - 150*

Lab Sample ID: LCSD 860-120210/5-A
Matrix: Water
Analysis Batch: 120270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120210

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexachlorophene	0.00803	0.008490		mg/L		106	60 - 135	6	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*114*		*45 - 150*

Method: 632 - Carbamate and Urea Pesticides (HPLC)

Lab Sample ID: MB 860-120165/1-A
Matrix: Water
Analysis Batch: 122336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120165

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85	U	5.00	1.85	ug/L		09/05/23 12:59	09/16/23 07:54	1
Diuron	<0.0514	U	0.0900	0.0514	ug/L		09/05/23 12:59	09/16/23 07:54	1

Method: 632 - Carbamate and Urea Pesticides (HPLC) (Continued)

Lab Sample ID: LCS 860-120165/2-A
Matrix: Water
Analysis Batch: 122336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbaryl	100	107.0		ug/L		107	70 - 130
Diuron	2.00	2.577		ug/L		129	70 - 130

Lab Sample ID: LCSD 860-120165/3-A
Matrix: Water
Analysis Batch: 122336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120165

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbaryl	100	99.77		ug/L		100	70 - 130	7	20
Diuron	2.00	2.259		ug/L		113	70 - 130	13	20

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-639836/12-A
Matrix: Water
Analysis Batch: 639905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000000200	U	0.000005000	0.000000200	mg/L		09/05/23 16:00	09/06/23 11:17	1

Lab Sample ID: LCS 400-639836/13-A
Matrix: Water
Analysis Batch: 639905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639836

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00000500	0.000005096		mg/L		102	79 - 121

Lab Sample ID: LCSD 400-639836/14-A
Matrix: Water
Analysis Batch: 639905

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639836

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00000500	0.000005188		mg/L		104	79 - 121	2	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 860-120879/1-A
Matrix: Water
Analysis Batch: 121218

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 120879

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.00252	U	0.0100	0.00252	mg/L		09/10/23 12:30	09/11/23 23:39	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 860-120879/2-A
Matrix: Water
Analysis Batch: 121218

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 120879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.08490		mg/L		85	85 - 115

Lab Sample ID: LCSD 860-120879/3-A
Matrix: Water
Analysis Batch: 121218

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 120879

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.100	0.08619		mg/L		86	85 - 115	2	20

Lab Sample ID: LLCS 860-120879/4-A
Matrix: Water
Analysis Batch: 121218

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 120879

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.0100	0.008073	J	mg/L		81	50 - 150

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 860-120777/19-A
Matrix: Water
Analysis Batch: 120956

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0240	U	0.0600	0.0240	mg/L		09/08/23 14:40	09/08/23 18:46	1

Lab Sample ID: MB 860-120777/4-A
Matrix: Water
Analysis Batch: 120956

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00200	U	0.00500	0.00200	mg/L		09/08/23 14:40	09/08/23 18:32	1

Lab Sample ID: LCS 860-120777/5-A
Matrix: Water
Analysis Batch: 120956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.09318		mg/L		93	90 - 110

Lab Sample ID: LCSD 860-120777/21-A
Matrix: Water
Analysis Batch: 120956

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	1.20	1.225		mg/L		102	90 - 110	6	20

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LLCS 860-120777/6-A
Matrix: Water
Analysis Batch: 120956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120777

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.00500	0.002896	J	mg/L		58	50 - 150

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 860-119989/1-A
Matrix: Water
Analysis Batch: 120247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119989

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0580	U	0.100	0.0580	mg/L		09/01/23 22:59	09/05/23 19:42	1

Lab Sample ID: LCS 860-119989/2-A
Matrix: Water
Analysis Batch: 120247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 119989

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	1.00	0.9400		mg/L		94	90 - 110

Lab Sample ID: LCSD 860-119989/3-A
Matrix: Water
Analysis Batch: 120247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 119989

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	1.00	0.9590		mg/L		96	90 - 110	2	20

Lab Sample ID: MB 860-120247/16
Matrix: Water
Analysis Batch: 120247

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.00580	U	0.0100	0.00580	mg/L			09/05/23 18:46	1

Lab Sample ID: LCS 860-120247/17
Matrix: Water
Analysis Batch: 120247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09910		mg/L		99	90 - 110

Lab Sample ID: LCSD 860-120247/18
Matrix: Water
Analysis Batch: 120247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	0.100	0.1050		mg/L		105	90 - 110	6	20

GC/MS VOA

Analysis Batch: 119794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	624.1	
MB 860-119794/10	Method Blank	Total/NA	Water	624.1	
LCS 860-119794/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 860-119794/4	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 120077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	625	
MB 860-120077/1-A	Method Blank	Total/NA	Water	625	
LCS 860-120077/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 860-120077/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 120189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	625.1	120077
MB 860-120077/1-A	Method Blank	Total/NA	Water	625.1	120077
LCS 860-120077/2-A	Lab Control Sample	Total/NA	Water	625.1	120077
LCSD 860-120077/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	120077

Analysis Batch: 120468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-120537/1-A	Method Blank	Total/NA	Water	625.1	120537
LCS 860-120537/2-A	Lab Control Sample	Total/NA	Water	625.1	120537
LCSD 860-120537/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	120537

Prep Batch: 120537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1 - RE	20421-23	Total/NA	Water	625	
MB 860-120537/1-A	Method Blank	Total/NA	Water	625	
LCS 860-120537/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 860-120537/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 120804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1 - RE	20421-23	Total/NA	Water	625.1	120537

GC Semi VOA

Prep Batch: 120210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	3511	
MB 860-120210/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-120210/2-A	Lab Control Sample	Total/NA	Water	3511	
LCS 860-120210/4-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-120210/3-A	Lab Control Sample Dup	Total/NA	Water	3511	
LCSD 860-120210/5-A	Lab Control Sample Dup	Total/NA	Water	3511	

Prep Batch: 120254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	608	

GC Semi VOA (Continued)

Prep Batch: 120254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-120254/1-A	Method Blank	Total/NA	Water	608	
LCS 860-120254/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 860-120254/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 860-120254/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 860-120254/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 120270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	615	120210
MB 860-120210/1-A	Method Blank	Total/NA	Water	615	120210
LCS 860-120210/2-A	Lab Control Sample	Total/NA	Water	615	120210
LCS 860-120210/4-A	Lab Control Sample	Total/NA	Water	615	120210
LCSD 860-120210/3-A	Lab Control Sample Dup	Total/NA	Water	615	120210
LCSD 860-120210/5-A	Lab Control Sample Dup	Total/NA	Water	615	120210

Analysis Batch: 120298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	608.3	120254
MB 860-120254/1-A	Method Blank	Total/NA	Water	608.3	120254
LCS 860-120254/2-A	Lab Control Sample	Total/NA	Water	608.3	120254
LCSD 860-120254/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	120254

Analysis Batch: 120371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	608.3	120254
MB 860-120254/1-A	Method Blank	Total/NA	Water	608.3	120254
LCS 860-120254/4-A	Lab Control Sample	Total/NA	Water	608.3	120254
LCSD 860-120254/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	120254

HPLC/IC

Prep Batch: 120165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	CWA_Prep	
MB 860-120165/1-A	Method Blank	Total/NA	Water	CWA_Prep	
LCS 860-120165/2-A	Lab Control Sample	Total/NA	Water	CWA_Prep	
LCSD 860-120165/3-A	Lab Control Sample Dup	Total/NA	Water	CWA_Prep	

Analysis Batch: 122336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	632	120165
MB 860-120165/1-A	Method Blank	Total/NA	Water	632	120165
LCS 860-120165/2-A	Lab Control Sample	Total/NA	Water	632	120165
LCSD 860-120165/3-A	Lab Control Sample Dup	Total/NA	Water	632	120165

Metals

Prep Batch: 120879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total Recoverable	Water	200.8	
MB 860-120879/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 860-120879/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Metals (Continued)

Prep Batch: 120879 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-120879/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
LLCS 860-120879/4-A	Lab Control Sample	Total Recoverable	Water	200.8	

Analysis Batch: 121218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total Recoverable	Water	200.8	120879
MB 860-120879/1-A	Method Blank	Total Recoverable	Water	200.8	120879
LCS 860-120879/2-A	Lab Control Sample	Total Recoverable	Water	200.8	120879
LCSD 860-120879/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	120879
LLCS 860-120879/4-A	Lab Control Sample	Total Recoverable	Water	200.8	120879

Prep Batch: 639836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	1631E	
MB 400-639836/12-A	Method Blank	Total/NA	Water	1631E	
LCS 400-639836/13-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-639836/14-A	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 639905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	1631E	639836
MB 400-639836/12-A	Method Blank	Total/NA	Water	1631E	639836
LCS 400-639836/13-A	Lab Control Sample	Total/NA	Water	1631E	639836
LCSD 400-639836/14-A	Lab Control Sample Dup	Total/NA	Water	1631E	639836

General Chemistry

Analysis Batch: 117456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	SM 4500 CN G	

Prep Batch: 119989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-119989/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 860-119989/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
LCSD 860-119989/3-A	Lab Control Sample Dup	Total/NA	Water	Distill/Phenol	

Analysis Batch: 120247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	420.4	
MB 860-119989/1-A	Method Blank	Total/NA	Water	420.4	119989
MB 860-120247/16	Method Blank	Total/NA	Water	420.4	
LCS 860-119989/2-A	Lab Control Sample	Total/NA	Water	420.4	119989
LCS 860-120247/17	Lab Control Sample	Total/NA	Water	420.4	
LCSD 860-119989/3-A	Lab Control Sample Dup	Total/NA	Water	420.4	119989
LCSD 860-120247/18	Lab Control Sample Dup	Total/NA	Water	420.4	

Prep Batch: 120777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	Distill/CN	
MB 860-120777/19-A	Method Blank	Total/NA	Water	Distill/CN	

General Chemistry (Continued)

Prep Batch: 120777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-120777/4-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 860-120777/5-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 860-120777/21-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
LLCS 860-120777/6-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 120956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-56414-1	20421-23	Total/NA	Water	335.4	120777
MB 860-120777/19-A	Method Blank	Total/NA	Water	335.4	120777
MB 860-120777/4-A	Method Blank	Total/NA	Water	335.4	120777
LCS 860-120777/5-A	Lab Control Sample	Total/NA	Water	335.4	120777
LCSD 860-120777/21-A	Lab Control Sample Dup	Total/NA	Water	335.4	120777
LLCS 860-120777/6-A	Lab Control Sample	Total/NA	Water	335.4	120777

Lab Chronicle

Client: Bio Chem Lab, Inc
Project/Site: City of McGregor Permit Renewal

Job ID: 860-56414-1

Client Sample ID: 20421-23

Date Collected: 08/30/23 14:49
Date Received: 09/01/23 07:00

Lab Sample ID: 860-56414-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	119794	09/01/23 16:49	NA	EET HOU
Total/NA	Prep	625			1000 mL	1.0 mL	120077	09/05/23 09:04	MPC	EET HOU
Total/NA	Analysis	625.1		1	1 mL	1 mL	120189	09/05/23 23:21	PXS	EET HOU
Total/NA	Prep	625	RE		1000 mL	1.0 mL	120537	09/07/23 10:54	MPC	EET HOU
Total/NA	Analysis	625.1	RE	1	1 mL	1 mL	120804	09/08/23 19:07	T1S	EET HOU
Total/NA	Prep	608			1000 mL	1.00 mL	120254	09/06/23 06:38	DR	EET HOU
Total/NA	Analysis	608.3		1			120371	09/06/23 21:14	KM	EET HOU
Total/NA	Prep	608			1000 mL	1.00 mL	120254	09/06/23 06:38	DR	EET HOU
Total/NA	Analysis	608.3		1			120298	09/06/23 13:05	WP	EET HOU
Total/NA	Prep	3511			50 mL	4 mL	120210	09/05/23 16:52	JN	EET HOU
Total/NA	Analysis	615		1			120270	09/06/23 14:52	A1S	EET HOU
Total/NA	Prep	CWA_Prep			1000 mL	10 mL	120165	09/05/23 12:59	DR	EET HOU
Total/NA	Analysis	632		1			122336	09/16/23 09:33	AA	EET HOU
Total/NA	Prep	1631E			40 mL	40 mL	639836	09/05/23 13:30	VLC	EET PEN
							Completed:	09/06/23 10:00 [1]		
Total/NA	Analysis	1631E		1			639905	09/06/23 12:11	VLC	EET PEN
Total Recoverable	Prep	200.8			50 mL	50 mL	120879	09/10/23 12:30	MD	EET HOU
Total Recoverable	Analysis	200.8		1			121218	09/12/23 00:06	DP	EET HOU
Total/NA	Prep	Distill/CN			6 mL	6 mL	120777	09/08/23 14:40	CL	EET HOU
Total/NA	Analysis	335.4		1			120956	09/08/23 18:42	AA	EET HOU
Total/NA	Analysis	420.4		1	10 mL	10 mL	120247	09/05/23 19:05	ADL	EET HOU
Total/NA	Analysis	SM 4500 CN G		1			117456	09/01/23 13:21	AA	EET HOU

[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
Job ID: 860-56414-1
Project/Site: City of McGregor Permit Renewal

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-23-53	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
608.3	608	Water	Dicofol
608.3	608	Water	Polychlorinated biphenyls, Total
615	3511	Water	Hexachlorophene
624.1		Water	1,3-Dichloropropene, Total
624.1		Water	Trihalomethanes, Total
625.1	625	Water	1,2-Diphenylhydrazine (as Azobenzene)
625.1	625	Water	3 & 4 Methylphenol
625.1	625	Water	Nonylphenol
632	CWA_Prep	Water	Diuron

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	10-09-23
Kansas	NELAP	E-10253	10-31-23
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	09-28-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
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: City of McGregor Permit Renewal

Job ID: 860-56414-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET HOU
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
200.8	Metals (ICP/MS)	EPA	EET HOU
335.4	Cyanide, Total	EPA	EET HOU
420.4	Phenolics, Total Recoverable	EPA	EET HOU
SM 4500 CN G	Cyanide, Amenable	SM	EET HOU
614	EPA 614 - Organophosphorus Pesticides	EPA	Ana-Lab Co
1631E	Preparation, Mercury, Low Level	EPA	EET PEN
200.8	Preparation, Total Recoverable Metals	EPA	EET HOU
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
Distill/CN	Distillation, Cyanide	None	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.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
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

Sample Summary

Client: Bio Chem Lab, Inc
Project/Site: City of McGregor Permit Renewal

Job ID: 860-56414-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-56414-1	20421-23	Water	08/30/23 14:49	09/01/23 07:00

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
*Office: 903-984-0551 * Fax: 903-984-5914*

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The Science of Sure

Project
1071864

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Printed 10/03/2023 13:30

Eurofns Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staford, TX 77477

TABLE OF CONTENTS

City of McGregor Permit Renewal

This report consists of this Table of Contents and the following pages:

Email: Kilgore.projectmanager@spl-inc.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
*Office: 903-984-0551 * Fax: 903-984-5914*

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SAMPLE CROSS REFERENCE

Project
1071864

Printed 10/3/2023 Page 1 of 1

Eurofns Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staford, TX 77477

Sample	Sample ID	Taken	Time	Received
2227554	*20421-23 (860-56414-1)*	08/30/2023	14:49:00	09/02/2023

Bottle 01 Client Supplied Amber Glass
Bottle 02 Client Supplied Amber Glass
Bottle 03 Prepared Bottle: OPXL/OPXS 2 mL Autosampler Vial (Batch 1080337) Volume: 1.00000 mL <== Derived from 02 (1008 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 614	03	1080337	09/06/2023	1084117	10/02/2023
EPA 622	03	1080337	09/06/2023	1084110	10/02/2023

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

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Eurofns Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staford, TX 77477

Project 1071864

Printed: 10/03/2023

City of McGregor Permit Renewal

RESULTS

Sample Results

2227554 20421-23 (860-56414-1) *Received:* 09/02/2023

Non-Potable Water *Collected by:* Client Eurofins Test Americ *PO:* US1313021524
Taken: 08/30/2023 14:49:00

EPA 614 *Prepared:* 1080337 09/06/2023 13:20:00 *Analyzed* 1084117 10/02/2023 17:44:00 BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Azinphos-methyl (Guthion)	<0.0496	ug/L	0.0496		86-50-0	03
NELAC	Demeton	<0.0496	ug/L	0.0496		8065-48-3	03
NELAC	Diazinon	<0.0496	ug/L	0.0496		333-41-5	03
NELAC	Malathion	<0.0496	ug/L	0.0496		121-75-5	03
NELAC	Parathion, ethyl	<0.0496	ug/L	0.0496		56-38-2	03
NELAC	Parathion, methyl	<0.0496	ug/L	0.0496		298-00-0	03

EPA 622 *Prepared:* 1080337 09/06/2023 13:20:00 *Analyzed* 1084110 10/02/2023 17:44:00 BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chlorpyrifos	<0.0496	ug/L	0.0496		2921-88-2	03

Sample Preparation

2227554 20421-23 (860-56414-1) *Received:* 09/02/2023

US1313021524

08/30/2023

Prepared: 09/05/2023 09:33:13 *Calculated* 09/05/2023 09:33:13 CAL

z	Environmental Fee (per Project)	Verified

Cooler Return *Prepared:* 09/05/2023 15:00:00 *Analyzed* 09/05/2023 15:00:00 DRS

z	Return Cooler/No bottles Require	returned

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Eurofns Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staford, TX 77477

Printed: 10/03/2023

2227554 20421-23 (860-56414-1) Received: 09/02/2023

US1313021524

08/30/2023

EPA 608.3	*Prepared:*	*1080337*	*09/06/2023*	*13:20:00*	*Analyzed*	*1080337*	*09/06/2023*	*13:20:00*	*MCC*
Solvent Extraction	**1/1008**	**ml**							02
EPA 614	*Prepared:*	*1080337*	*09/06/2023*	*13:20:00*	*Analyzed*	*1084117*	*10/02/2023*	*17:44:00*	*BLF*
z **Permit Organophos. Pesticides**	**Entered**								03
EPA 622	*Prepared:*	*1080337*	*09/06/2023*	*13:20:00*	*Analyzed*	*1084110*	*10/02/2023*	*17:44:00*	*BLF*
NELAC **For use with EXP !CPP only**	**Entered**								03

Qualiflers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was perflormed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites flor details

(N)ELAC - Covered in our NELAC scope ofl accreditation
z -- Not covered by our NELAC scope ofl accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval ofl SPL Kilgore. Unless otherwise specifled, these test results meet the requirements ofl 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 perflormed during sample preparation (EQL). Our analytical result must be above this RL beflore we report a value in theResults' column ofl 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 flrom regulatory agencies Unless we report a result in the result column, or interflerences prevent it, we work to have our RL at or below the MAL.

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Eurofns Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staford, TX 77477

Printed: 10/03/2023

Trey Peery, MA, Project Manager

QUALITY CONTROL

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Project 1071864

Euroffins Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staffiord, TX 77477

Printed 10/03/2023

Analytical Set 1084110 — EPA 622

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chlorpyrifos	1080337	ND	0.0904	50.0	ug/L	125491154

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chlorpyrifos	1010	1000	ug/L	101	48.0 - 150	125491153
Chlorpyrifos	908	1000	ug/L	90.8	48.0 - 150	125491161
Chlorpyrifos	1080	1000	ug/L	108	48.0 - 150	125491172

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chlorpyrifos	1080337	831	795	1000	0.100 - 128	83.1	79.5	ug/L	4.43	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Tributylphosphate		CCV	1080	1000	ug/L	108	0.100 - 115	125491153
Tributylphosphate		CCV	469	1000	ug/L	46.9	0.100 - 115	125491161
Tributylphosphate		CCV	539	1000	ug/L	53.9	0.100 - 115	125491172
Triphenylphosphate		CCV	997	1000	ug/L	99.7	0.100 - 115	125491153
Triphenylphosphate		CCV	812	1000	ug/L	81.2	0.100 - 115	125491161
Triphenylphosphate		CCV	878	1000	ug/L	87.8	0.100 - 115	125491172
Tributylphosphate	1080337	Blank	561	1000	ug/L	56.1	0.100 - 115	125491154
Tributylphosphate	1080337	LCS	442	1000	ug/L	44.2	0.100 - 115	125491155
Tributylphosphate	1080337	LCS Dup	424	1000	ug/L	42.4	0.100 - 115	125491156
Triphenylphosphate	1080337	Blank	744	1000	ug/L	74.4	0.100 - 115	125491154
Triphenylphosphate	1080337	LCS	630	1000	ug/L	63.0	0.100 - 115	125491155
Triphenylphosphate	1080337	LCS Dup	582	1000	ug/L	58.2	0.100 - 115	125491156

Analytical Set 1084117 — EPA 614

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Azinphos-methyl (Guthion)	1080337	ND	41.4	50.0	ug/L	125491276
Demeton	1080337	ND	31.9	50.0	ug/L	125491276
Diazinon	1080337	ND	19.7	50.0	ug/L	125491276
Malathion	1080337	ND	24.8	50.0	ug/L	125491276
Parathion, ethyl	1080337	ND	23.9	50.0	ug/L	125491276
Parathion, methyl	1080337	ND	27.4	50.0	ug/L	125491276

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Azinphos-methyl (Guthion)	994	1000	ug/L	99.4	37.5 - 164	125491275
Azinphos-methyl (Guthion)	630	1000	ug/L	63.0	37.5 - 164	125491283
Azinphos-methyl (Guthion)	670	1000	ug/L	67.0	37.5 - 164	125491294
Demeton	1050	1000	ug/L	105	58.6 - 150	125491275
Demeton	913	1000	ug/L	91.3	58.6 - 150	125491283

QUALITY CONTROL

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Project 1071864

Euroffins Test America Houston
Bethany A McDaniel
4145 Greenbriar Drive
Staffiord, TX 77477

Printed 10/03/2023

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Demeton	1010	1000	ug/L	101	58.6 - 150	125491294
Diazinon	1010	1000	ug/L	101	65.4 - 138	125491275
Diazinon	853	1000	ug/L	85.3	65.4 - 138	125491283
Diazinon	988	1000	ug/L	98.8	65.4 - 138	125491294
Malathion	1040	1000	ug/L	104	49.5 - 160	125491275
Malathion	956	1000	ug/L	95.6	49.5 - 160	125491283
Malathion	1070	1000	ug/L	107	49.5 - 160	125491294
Parathion, ethyl	1020	1000	ug/L	102	56.0 - 142	125491275
Parathion, ethyl	911	1000	ug/L	91.1	56.0 - 142	125491283
Parathion, ethyl	720	1000	ug/L	72.0	56.0 - 142	125491294
Parathion, methyl	1010	1000	ug/L	101	12.6 - 194	125491275
Parathion, methyl	910	1000	ug/L	91.0	12.6 - 194	125491283
Parathion, methyl	723	1000	ug/L	72.3	12.6 - 194	125491294

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Azinphos-methyl (Guthion)	1080337	646	507	1000	0.100 - 155	64.6	50.7	ug/L	24.1	30.0
Demeton	1080337	652	619	1000	0.100 - 109	65.2	61.9	ug/L	5.19	30.0
Diazinon	1080337	642	620	1000	0.100 - 125	64.2	62.0	ug/L	3.49	30.0
Malathion	1080337	917	854	1000	0.100 - 130	91.7	85.4	ug/L	7.11	30.0
Parathion, ethyl	1080337	895	841	1000	0.100 - 122	89.5	84.1	ug/L	6.22	30.0
Parathion, methyl	1080337	716	696	1000	0.100 - 131	71.6	69.6	ug/L	2.83	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Tributylphosphate		CCV	1080	2000	ug/L	54.0	0.100 - 106	125491275
Tributylphosphate		CCV	469	2000	ug/L	23.4	0.100 - 106	125491283
Tributylphosphate		CCV	539	2000	ug/L	27.0	0.100 - 106	125491294
Triphenylphosphate		CCV	997	2000	ug/L	49.8	0.100 - 172	125491275
Triphenylphosphate		CCV	812	2000	ug/L	40.6	0.100 - 172	125491283
Triphenylphosphate		CCV	878	2000	ug/L	43.9	0.100 - 172	125491294
Tributylphosphate	1080337	Blank	561	2000	ug/L	28.0	0.100 - 106	125491276
Tributylphosphate	1080337	LCS	442	2000	ug/L	22.1	0.100 - 106	125491277
Tributylphosphate	1080337	LCS Dup	424	2000	ug/L	21.2	0.100 - 106	125491278
Triphenylphosphate	1080337	Blank	744	2000	ug/L	37.2	0.100 - 172	125491276
Triphenylphosphate	1080337	LCS	630	2000	ug/L	31.5	0.100 - 172	125491277
Triphenylphosphate	1080337	LCS Dup	582	2000	ug/L	29.1	0.100 - 172	125491278
Tributylphosphate	2227554	Unknown	0.416	1.98	ug/L	21.0	0.100 - 106	125491279
Triphenylphosphate	2227554	Unknown	0.563	1.98	ug/L	28.4	0.100 - 172	125491279

* Out RPD is Relative Percent Diffierence 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 Veriffication (same standard used to prepare the curve; typically a mid-range concentration; veriffies the continued validity offi the calibration curve); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample ffior duplicate or MSD; quantiffies accuracy and precision); Surrogate - Surrogate (mimics the analyte offi interest but is unlikely to be ffiound in environmental samples; added to analytical samples ffior QC purposes** ANSI/ASQC E4 1994 Reff# 4 TRADE QA Resources Guide.)

Eurofins Houston
4145 Greenbriar Dr
Stafford, TX 77477
Phone: 281-240-4200

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Richter, Travis W	Carrier Tracking No(s):	COC No: 860-40249.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Travis.Richter@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Ana-Lab Corporation		Accreditations Required (See note): NELAP - Texas		Job #: 860-56414-1
Address: 2600 Dudley Rd,	Due Date Requested: 9/11/2023	Analysis Requested		Preservation Codes:
City: Kilgore	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA; M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: TX, 75662				
Phone:	PO #:			
Email:	WO #:			
Project Name: City of McGregor Permit Renewal	Project #: 86005455			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Table 4.0 (1) - Organophosphorous Pesticides (GC))/ OrganoPhos Pesticides	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X		X	
20421-23 (860-56414-1)	8/30/23	14:49 Central		Water			X		See Attached Instructions
2227554									

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:	
Relinquished by: SC	Date/Time: 9-1-23 16:30	Company	Received by: Fed Ex	Date/Time: 9-1-23 1630	Company
Relinquished by: Fed Ex 9/2/23 0945	Date/Time: 9/2/23 0945	Company	Received by: Antonio James SPL, Inc. [signature]	Date/Time: 9/2/23 0945	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: See Attached for Tracking # and Temp		

Ver: 06/08/2021

Shipping Order Form

eurofins | Environment Testing

Eurofins Houston
4145 Greenbriar Dr
Stafford, TX 77477
Phone (281) 240-4200

Shipping Order ID: 22125 **Ship Via: FedEx Priority Overnight** **Due On: 9/1/2023 11:59:00PM**

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: *TX*
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

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

1071864 CoC Print Group 001 of 001

9/1/23, 3:45 PM

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:SGRA (281) 240-4200
ADMINISTRATIVE OFFICES
XENCO HOUSTON
4145 GREENBRIAR DR

STAFFORD, TX 77477
UNITED STATES US

SHIP DATE: 01SEP23
ACTWGT: 10.00 LB
CAD: 110189707/INET4640

BILL SENDER

TO ANA-LAB CORP.
ANA-LAB CORP.
2600 DUDLEY RD

KILGORE TX 75662
(903) 984-0551 REF:
INV:
PO: DEPT:

583J5/7584/9AE3

FedEx Express

E

TRK# 0201 7732 8788 1670

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO GGGA

75662
TX-US SHV

9/2/23 1235 AAJ
Date Time Tech
Temp: 0.7/0.7 C

Therm#: 8205 Corr Fact: 0.0 C

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. 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.
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.

BIO CHEM LAB, INC
PO BOX 356
4751 TOKIO ROAD
WEST, TX 76691-0356
E-MAIL: CUSTOMERSERVICE@BIOCHEMLABTX.COM

BCL INC

OFFICE NO.: 254.829.8001
FAX NO.: 254.829.8013
CELL NO.: 254.749.4320
EMERGENCY: 254.749.4320

NELAP ACCREDITED TNI LABORATORY

10/30/2023

SERVICE ♦ VISION ♦ COMMUNITY ♦ COMMITMENT

CLIENT: BIO CHEM LAB, INC.	CONTACT: ANDY JANEK	PROJECT: CITY OF MCGREGOR PERMIT RENEWAL
ADDRESS: P.O. BOX 356	PHONE NO.: 254.829.8001	
WEST, TX 76691	EMAIL: ajanek@biochemlabtx.com	

Sample ID: Laboratory Use Only	Sample Name, Site Description or Case Number	Collection Date	Collection Time	Matrix	Container No. / Volume / Type	Grab / Composite	Preservation Code	Analysis Requested
20421-23	CONTACT CHAMBER	8.30.23	14:49	NPW	1 / 250 / P	GRAB	3	TOTAL BORON
					1 / 250 / P		1,6	TOTAL CYANIDE / AVAILABLE CYANIDE
					ASSORTED			SEE ATTACHED LIST

PROJECT COMMENTS / SAMPLING PROCEDURES:

LABORATORY COMMENTS:

Temp: 2.4 IR ID:HOU-338
C/F:-0.3
Corrected Temp: 2.1

DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
8.31.23	2030		8.31.23	2030	Ron Rich
9-1-23	7:00	Ron Rich	9/01/23	7:00	

Matrix: AQ - Aqueous NPW - Non-Potable Water S - Sludge/Soil/Sediment PW - Potable Water

(1) cool to 4°C (2) H_2SO_4 to pH<2 (3) HNO_3 to pH<2 (4) HCl to pH<2 (5) $Na_2S_2O_3$ (6) NaOH to pH>12 (7) None required (8) Other, as noted

Container: P - Plastic AP - Amber Plastic G - Clear Glass AG - Amber Glass M - Bact / MICRO B - Whirl Pak / BAG VOA - 40 mL vial O - OTHER___ *Describe:*

ADDITIONAL PRESERVATION / SAMPLE INTEGRITY NOTES: SAMPLES REMOVED FROM NPW3 ON 8.31.23; PACKED ON ICE AND DELIVERED TO EUROFINS BY DYNAMO - BF

Minimum Analytical Levels and Suggested Methods for Application Screening

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
Acenaphthene	83-32-9	10	625
Acenaphthylene	208-96-8	10	625
Acrolein	107-02-8	50	624
Acrylonitrile	107-13-1	50	624, 1624B
Aldrin	309-00-2	0.01	608
~~Aluminum, total~~	~~7429-90-5~~	~~2.5~~	~~200.8~~ BCL
Aniline	62-53-3	10	625
Anthracene	120-12-7	10	625
~~Antimony, total~~	~~7440-36-0~~	~~5~~	~~200.8~~ BCL
~~Arsenic, total~~	~~7440-38-2~~	~~0.5~~	~~200.8~~ BCL
Asbestos	1332-21-4	—	100.1 and 100.2
~~Barium, total~~	~~7440-39-3~~	~~3~~	~~200.8~~ BCL
Benzene	71-43-2	10	624
Benzidine	92-87-5	50	625
Benzo(*a*)anthracene	56-55-3	5	625
Benzo(*a*)pyrene	50-32-8	5	625
3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	205-99-2	10	625
Benzo(*g,h,i*)perylene	191-24-2	20	625
Benzo(*k*)fluoranthene	207-08-9	5	625
~~Beryllium, total~~	~~7440-41-7~~	~~0.5~~	~~200.8~~ BCL
Bis(2-chloroethoxy)methane	111-91-1	10	625
Bis(2-chloroethyl)ether	111-44-4	10	625
Bis(2-chloroisopropyl)ether	108-60-1	10	625
Bis(chloromethyl)ether	542-88-1	**	**
Bis(2-ethylhexyl)phthalate	117-81-7	10	625
Boron, total	7440-42-8	20	200.7
Bromodichloromethane [Dichlorobromomethane]	75-27-4	10	624
Bromoform	75-25-2	10	624
4-Bromophenyl phenyl ether	101-55-3	10	625
Butylbenzyl phthalate	85-68-7	10	625
~~Cadmium, total~~	~~7440-43-9~~	~~1~~	~~200.8~~ BCL
Carbaryl	63-25-2	5	632
Carbon tetrachloride	56-23-5	2	624

EF *

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
Chlordane	57-74-9	0.2	608
Chlorobenzene	108-90-7	10	624
Chlorodibromomethane	124-48-1	10	624
Chloroethane	75-00-3	50	624
2-Chloroethylvinyl ether	110-75-8	10	624
Chloroform [Trichloromethane]	67-66-3	10	624
p-Chloro-*m*-cresol	59-50-7	10	625
2-Chloronaphthalene	91-58-7	10	625
2-Chlorophenol	95-57-8	10	625
4-Chlorophenyl phenyl ether	7005-72-3	10	625
Chlorpyrifos	2921-88-2	0.05	1657
Chromium, total	7440-47-3	3	200.8
Chromium, hexavalent	18540-29-9	3	218.6, rev. 3.3
Chromium, trivalent	16065-83-1	***	***
Chrysene	218-01-9	5	625
Copper, total	7440-50-8	2	200.8
Cresols (all isomers)	1319-77-3	10	625
m-Cresol [3-Methylphenol]	108-39-4	10	625
o-Cresol [2-Methylphenol]	95-48-7	10	625
p-Cresol [4-Methylphenol]	106-44-5	10	625
Cyanide, total	57-12-5	10	335.4, 4500-CN D, or 4500-CN E
Cyanide, available	57-12-5	10	4500-CN G
		2	OIA-1677
4,4'-DDD	72-54-8	0.1	608
4,4'-DDE	72-55-9	0.1	608
4,4'-DDT	50-29-3	0.02	608
2,4-D	94-75-7	0.7	615 or SM6640B
Demeton	8065-48-3	0.20	1657
Diazinon	333-41-5	0.5	1657
		0.1	614
Dibenzo(*a,h*)anthracene	53-70-3	5	625
1,2-Dibromoethane	106-93-4	10	1624
m-Dichlorobenzene [1,3-Dichlorobenzene]	541-73-1	10	624
o-Dichlorobenzene [1,2-Dichlorobenzene]	95-50-1	10	624

BCL

BCL

EF (

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
p-Dichlorobenzene [1,4-Dichlorobenzene]	106-46-7	10	624
3,3'-Dichlorobenzidine	91-94-1	5	625
1,1-Dichloroethane	75-34-3	10	624
1,2-Dichloroethane	107-06-2	10	624
1,1-Dichloroethene [1,1-Dichloroethylene]	75-35-4	10	624
Dichloromethane [Methylene chloride]	75-09-2	20	624
2,4-Dichlorophenol	120-83-2	10	625
1,2-Dichloropropane	78-87-5	10	624
1,3-Dichloropropene [1,3-Dichloropropylene]	542-75-6	10	624
Dicofol [Kelthane]	115-32-2	1	ASTM D5812-96(02)
Dieldrin	60-57-1	0.02	608
Diethyl phthalate	84-66-2	10	625
2,4-Dimethylphenol	105-67-9	10	625
Dimethyl phthalate	131-11-3	10	625
Di-*n*-butyl phthalate	84-74-2	10	625
4,6-Dinitro-*o*-cresol	534-52-1	50	625
2,4-Dinitrophenol	51-28-5	50	625
2,4-Dinitrotoluene	121-14-2	10	625
2,6-Dinitrotoluene	606-20-2	10	625
Di-*n*-Octyl phthalate	117-84-0	10	625
Dioxins/Furans (TCDD Equivalents)			
2,3,7,8-TCDD	1746-01-6	10 ppq	1613B
1,2,3,7,8-PeCDD	40321-76-4	50 ppq	1613B
2,3,7,8-HxCDDs			
1,2,3,4,7,8-HxCDD	39227-28-6	50 ppq	1613B
1,2,3,6,7,8-HxCDD	57653-85-7	50 ppq	1613B
1,2,3,7,8,9-HxCDD	19408-74-3	50 ppq	1613B
1,2,3,4,6,7,8 HpCDD	35822-46-9	50 ppq	1613B
OCDD	3268-87-9	100 ppq	1613B
2,3,7,8-TCDF	51207-31-9	10 ppq	1613B
1,2,3,7,8-PeCDF	57117-41-6	50 ppq	1613B
2,3,4,7,8-PeCDF	57117-31-4	50 ppq	1613B
2,3,7,8-HxCDFs			
1,2,3,4,7,8-HxCDF	70648-26-9	50 ppq	1613B
1,2,3,6,7,8-HxCDF	57117-44-9	50 ppq	1613B
1,2,3,7,8,9-HxCDF	72918-21-9	50 ppq	1613B

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
2,3,4,6,7,8-HxCDF	60851-34-5	50 ppq	1613B
2,3,4,7,8-HpCDFs			
1,2,3,4,6,7,8-HpCDF	67562-39-4	50 ppq	1613B
1,2,3,4,7,8,9-HpCDF	55673-89-7	50 ppq	1613B
OCDF	39001-02-0	100 ppq	1613B
1,2-Diphenylhydrazine (as Azobenzene)	122-66-7	20	1625
Diuron	330-54-1	0.090	632
Endosulfan I (*alpha*)	959-98-8	0.01	608
Endosulfan II (*beta*)	33213-65-9	0.02	608
Endosulfan sulfate	1031-07-8	0.1	608
Endrin	72-20-8	0.02	608
Endrin aldehyde	7421-93-4	0.1	608
Ethylbenzene	100-41-4	10	624
Fluoranthene	206-44-0	10	625
Fluorene	86-73-7	10	625
~~Fluoride~~	~~16984-48-8~~	~~500~~	~~300.0, 300.1~~ BCL
Guthion [Azinphos methyl]	86-50-0	0.1	1657
Heptachlor	76-44-8	0.01	608
Heptachlor epoxide	1024-57-3	0.01	608
Hexachlorobenzene	118-74-1	5	625
Hexachlorobutadiene	87-68-3	10	625
Hexachlorocyclohexane (*alpha*)	319-84-6	0.05	608
Hexachlorocyclohexane (*beta*)	319-85-7	0.05	608
Hexachlorocyclohexane (*gamma*) [Lindane]	58-89-9	0.05	608
Hexachlorocyclohexane (*delta*)	319-86-8	0.05	608
Hexachlorocyclopentadiene	77-47-4	10	625 or 1625B
Hexachloroethane	67-72-1	20	625
Hexachlorophene	70-30-4	10	604.1
Indeno(1,2,3-*cd*)pyrene	193-39-5	5	625
Isophorone	78-59-1	10	625
~~Lead, total~~	~~7439-92-1~~	~~0.5~~	~~200.8~~ BCL
~~Magnesium, total~~	~~7439-95-4~~	~~20~~	~~200.7~~ BCL
Malathion	121-75-5	0.1	1657 or SM6630C
Mercury, total	7439-97-6	0.005	245.7, Rev. 2.0
		0.0005	1631E
Methoxychlor	72-43-5	2.0	617 or SM6630B and C

EF →

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
Methyl bromide [Bromomethane]	74-83-9	50	624
Methyl chloride [Chloromethane]	74-87-3	50	624
Methyl ethyl ketone	78-93-3	50	624
Mirex	2385-85-5	0.02	SM6630B and C
Naphthalene	91-20-3	10	625
~~Nickel, total~~	~~7440-02-0~~	~~2~~	~~200.8~~ BCL
Nitrate-nitrogen	14797-55-8	100	300.0, Rev. 2.1 300.1, Rev. 1.0 BCL
Nitrobenzene	98-95-3	10	625
2-Nitrophenol	88-75-5	20	625
4-Nitrophenol	100-02-7	50	625
N-Nitrosodiethylamine	55-18-5	20	625
N-Nitrosodimethylamine	62-75-9	50	625 or 1625B
N-Nitroso-di-*n*-butylamine	924-16-3	20	625
N-Nitrosodi-*n*-propylamine	621-64-7	20	625 or 1625B
N-Nitrosodiphenylamine	86-30-6	20	625 or 1625B
Nonylphenol	25154-52-3	333	1625
Parathion (ethyl)	56-38-2	0.1	1657 or SM6630C
Pentachlorobenzene	608-93-5	20	625
Pentachlorophenol	87-86-5	5	625
Phenanthrene	85-01-8	10	625
Phenol, total	108-95-2	10	625
Polychlorinated Biphenyls (PCBs)	1336-36-3		
PCB 77	32598-13-3	0.0005	1668B ††
PCB 81	70362-50-4	0.0005	1668B ††
PCB 126	57465-28-8	0.0005	1668B ††
PCB 169	32774-16-6	0.0005	1668B ††
PCB 1016	12674-11-2	0.2	608
PCB 1221	11104-28-2	0.2	608
PCB 1232	11141-16-5	0.2	608
PCB 1242	53469-21-9	0.2	608
PCB 1248	12672-29-6	0.2	608
PCB 1254	11097-69-1	0.2	608
PCB 1260	11096-82-5	0.2	608
Pyrene	129-00-0	10	625
Pyridine	110-86-1	20	625
~~Selenium, total~~	~~7782-49-2~~	~~5~~	~~200.8~~ BCL

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
~~Silver, total~~	~~7440-22-4~~	~~0.5~~	~~200.8~~
1,2,4,5-Tetrachlorobenzene	95-94-3	20	1625
1,1,2,2-Tetrachloroethane	79-34-5	10	624
Tetrachloroethene [Tetrachloroethylene]	127-18-4	10	624
~~Thallium, total~~	~~7440-28-0~~	~~0.5~~	~~200.8~~
Toluene	108-88-3	10	624
Toxaphene	8001-35-2	0.3	608
2,4,5-TP [Silvex]	93-72-1	0.3	SM6640B
1,2-Trans-Dichloroethylene [1,2-Trans-Dichloroethene]	156-60-5	10	624
Tributyltin	688-73-3	0.01	TCEQ 1001
1,2,4-Trichlorobenzene	120-82-1	10	625
1,1,1-Trichloroethane	71-55-6	10	624
1,1,2-Trichloroethane	79-00-5	10	624
Trichloroethene [Trichloroethylene]	79-01-6	10	624
2,4,5-Trichlorophenol	95-95-4	50	1625
2,4,6-Trichlorophenol	88-06-2	10	625
TTHM (Total Trihalomethanes)			
Bromodichloromethane	75-27-4	10	624
Dibromochloromethane	124-48-1	10	624
Tribromomethane (Bromoform)	75-25-2	10	624
Trichloromethane (Chloroform)	67-66-3	10	624
Vinyl chloride	75-01-4	10	624
~~Zinc, total~~	~~7440-66-6~~	~~5.0~~	~~200.8~~

— MAL not yet developed.
* Chemical Abstracts Service Registry Number
** Hydrolyzes in water. No analysis required at this time.
*** Trivalent Chromium (Cr) determined by subtracting Hexavalent Cr from Total Cr.
† EPA procedure not approved. The TCEQ will not require applicants to analyze at this time.
†† Until Method 1668B or equivalent method to measure PCB congeners is approved in *40 CFR Part 136*, compliance with PCB criteria is determined using Arochlor data or any alternate method listed in a TCEQ-approved Quality Assurance Plan.

Report an average and/or a maximum value, indicating the number of samples analyzed if more than one analytical result is available. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, volatile organic compounds (VOC), *E. coli*, and Enterococci. For all other pollutants, 24-hour composite samples must be used. Include the date and time the sample(s) was collected. Indicate units if different from micrograms per liter (µg/l). Note that it is quite common for laboratories to report metal results in milligrams per liter. Provide a definition for any abbreviation or acronyms used in completing the analytical tables.

BIO CHEM LAB, INC
PO BOX 356
4751 TOKIO ROAD
WEST, TX 76691-0356
E-MAIL. CUSTOMERSERVICE@BIOCHEMLABTX.COM

OFFICE NO. 254.829.8001
FAX NO 254.829.8013
CELL NO. 254.749.4320
EMERGENCY 254.749.4320

10/30/2023

SERVICE ♦ VISION ♦ COMMUNITY ♦ COMMITMENT

CLIENT BIO CHEM LAB, INC.	CONTACT ANDY JANEK	PROJECT CITY OF MCGREGOR PERMIT RENEWAL
ADDRESS: P.O. BOX 356	PHONE NO. 254.829.8001	
WEST, TX 76691	EMAIL. ajanek@biochemlabtx.com	

Sample ID / Laboratory Use Only	Sample Name, Site Description or Case Number	Collection Date	Collection Time	Matrix	Container No. / Volume / Type	Grab / Composite	Preservation Code	Analysis Requested
20421-23	CONTACT CHAMBER	8.30.23	14:49	NPW	1 / 250 / P	GRAB	3	TOTAL BORON
					1 / 250 / P		1,6	TOTAL CYANIDE / AVAILABLE CYANIDE
					ASSORTED			SEE ATTACHED LIST

860-56414 Chain of Custody

PROJECT C

LABORATORY COMMENTS:

Temp: 2 4 IR ID HOU-338
C/F -0.3
Corrected Temp: 2 1

DATE	TIME	RELINQUISHED BY	DATE	TIME	RECEIVED BY
8.31.23	2030		8.31.23	2030	Ron Rush
9-1-23	7:00	Ron Rush	9/01/23	7 00	

Matrix: AQ Aqueous NPW - Non-Potable Water S - Sludge/Soil/Sediment PW - Potable Water

(1) cool to 4°C (2) H_2SO_4 to pH<2 (3) HNO_3 to pH<2 (4) HCl to pH<2 (5) $Na_2S_2O_3$ (6) NaOH to pH>12 (7) None required (8) Other as noted

Container P Plastic AP Amber Plastic G Clear Glass AG Amber Glass M Bact / MICRO B Whirl Pak / BAG VOA 40 mL vial O - OTHER___ *Describe:*

ADDITIONAL PRESERVATION / SAMPLE INTEGRITY NOTES: SAMPLES REMOVED FROM NPW3 ON 8.31.23, PACKED ON ICE AND DELIVERED TO EUROFINS BY DYNAMO - BF

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
~~Silver, total~~	~~7440-22-4~~	~~0.5~~	~~200.8~~
1,2,4,5-Tetrachlorobenzene	95-94-3	20	1625
1,1,2,2-Tetrachloroethane	79-34-5	10	624
Tetrachloroethene [Tetrachloroethylene]	127-18-4	10	624
~~Thallium, total~~	~~7440-28-0~~	~~0.5~~	~~200.8~~
Toluene	108-88-3	10	624
Toxaphene	8001-35-2	0.3	608
2,4,5-TP [Silvex]	93-72-1	0 3	SM6640B
1,2-Trans-Dichloroethylene [1,2-Trans-Dichloroethene]	156-60-5	10	624
Tributyltin	688-73-3	0.01	TCEQ 1001
1,2,4-Trichlorobenzene	120-82-1	10	625
1,1,1-Trichloroethane	71-55-6	10	624
1,1,2-Trichloroethane	79-00-5	10	624
Trichloroethene [Trichloroethylene]	79-01-6	10	624
2,4,5 Trichlorophenol	95-95-4	50	1625
2,4,6-Trichlorophenol	88-06-2	10	625
TTHM (Total Trihalomethanes)			
Bromodichloromethane	75-27-4	10	624
Dibromochloromethane	124-48-1	10	624
Tribromomethane (Bromoform)	75 25-2	10	624
Trichloromethane (Chloroform)	67-66-3	10	624
Vinyl chloride	75-01-4	10	624
~~Zinc, total~~	~~7440-66-6~~	~~5 0~~	~~200 8~~

— MAL not yet developed.
* Chemical Abstracts Service Registry Number
** Hydrolyzes in water No analysis required at this time
*** Trivalent Chromium (Cr) determined by subtracting Hexavalent Cr from Total Cr
† EPA procedure not approved. The TCEQ will not require applicants to analyze at this time.
†† Until Method 1668B or equivalent method to measure PCB congeners is approved in *40 CFR Part 136*, compliance with PCB criteria is determined using Arochlor data or any alternate method listed in a TCEQ-approved Quality Assurance Plan.

Report an average and/or a maximum value, indicating the number of samples analyzed if more than one analytical result is available. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, volatile organic compounds (VOC), *E. coli*, and Enterococci. For all other pollutants, 24-hour composite samples must be used. Include the date and time the sample(s) was collected. Indicate units if different from micrograms per liter (µg/l). Note that it is quite common for laboratories to report metal results in milligrams per liter. Provide a definition for any abbreviation or acronyms used in completing the analytical tables.

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
Methyl bromide [Bromomethane]	74-83-9	50	624
Methyl chloride [Chloromethane]	74-87-3	50	624
Methyl ethyl ketone	78-93-3	50	624
Mirex	2385-85-5	0 02	SM6630B and C
Naphthalene	91-20-3	10	625
~~Nickel, total~~	~~7440-02-0~~	~~2~~	~~200.8~~ BCL
Nitrate-nitrogen	14797-55-8	100	300.0, Rev 2 1 300.1, Rev. 1 0 BCL
Nitrobenzene	98-95-3	10	625
2-Nitrophenol	88-75-5	20	625
4-Nitrophenol	100-02-7	50	625
N-Nitrosodiethylamine	55-18-5	20	625
N-Nitrosodimethylamine	62-75-9	50	625 or 1625B
N-Nitroso-di *n*-butylamine	924-16-3	20	625
N-Nitrosodi-*n*-propylamine	621-64-7	20	625 or 1625B
N-Nitrosodiphenylamine	86-30-6	20	625 or 1625B
Nonylphenol	25154-52-3	333	1625
Parathion (ethyl)	56-38-2	0.1	1657 or SM6630C
Pentachlorobenzene	608-93 5	20	625
Pentachlorophenol	87-86-5	5	625
Phenanthrene	85-01-8	10	625
Phenol, total	108-95-2	10	625
Polychlorinated Biphenyls (PCBs)	1336-36-3		
PCB 77	32598-13-3	0.0005	1668B ††
PCB 81	70362-50-4	0.0005	1668B ††
PCB 126	57465-28-8	0 0005	1668B ††
PCB 169	32774-16-6	0.0005	1668B ††
PCB 1016	12674-11-2	0.2	608
PCB 1221	11104-28-2	0.2	608
PCB 1232	11141-16-5	0 2	608
PCB 1242	53469-21-9	0.2	608
PCB 1248	12672-29-6	0 2	608
PCB 1254	11097-69-1	0.2	608
PCB 1260	11096-82-5	0 2	608
Pyrene	129-00-0	10	625
Pyridine	110-86-1	20	625
~~Selenium, total~~	~~7782-49-2~~	~~5~~	~~200.8~~ BCL

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
2,3,4,6,7,8-HxCDF	60851 34-5	50 ppq	1613B
2,3,4,7,8-HpCDFs			
1,2,3,4,6,7,8-HpCDF	67562-39-4	50 ppq	1613B
1,2,3,4,7,8,9-HpCDF	55673-89-7	50 ppq	1613B
OCDF	39001-02-0	100 ppq	1613B
1,2 Diphenylhydrazine (as Azobenzene)	122-66-7	20	1625
Diuron	330-54-1	0.090	632
Endosulfan I (*alpha*)	959-98-8	0.01	608
Endosulfan II (*beta*)	33213-65-9	0.02	608
Endosulfan sulfate	1031-07-8	0 1	608
Endrin	72-20-8	0 02	608
Endrin aldehyde	7421-93-4	0.1	608
Ethylbenzene	100-41-4	10	624
Fluoranthene	206-44-0	10	625
Fluorene	86-73-7	10	625
~~Fluoride~~	~~16984-48-8~~	~~500~~	~~300.0, 300.1~~ BCL
Guthion [Azinphos methyl]	86-50-0	0.1	1657
Heptachlor	76-44-8	0 01	608
Heptachlor epoxide	1024-57-3	0 01	608
Hexachlorobenzene	118-74-1	5	625
Hexachlorobutadiene	87-68-3	10	625
Hexachlorocyclohexane (*alpha*)	319-84-6	0 05	608
Hexachlorocyclohexane (*beta*)	319-85-7	0.05	608
Hexachlorocyclohexane (*gamma*) [Lindane]	58-89-9	0.05	608
Hexachlorocyclohexane (*delta*)	319-86-8	0.05	608
Hexachlorocyclopentadiene	77-47-4	10	625 or 1625B
Hexachloroethane	67-72-1	20	625
Hexachlorophene	70-30-4	10	604.1
Indeno(1,2,3-*cd*)pyrene	193-39-5	5	625
Isophorone	78-59-1	10	625
~~Lead, total~~	~~7439-92-1~~	~~0.5~~	~~200.8~~ BCL
~~Magnesium, total~~	~~7439-95-4~~	~~20~~	~~200.7~~ BCL
Malathion	121-75-5	0.1	1657 or SM6630C
Mercury, total	7439-97-6	0.005	245.7, Rev. 2.0
		0.0005	1631E
Methoxychlor	72-43-5	2.0	617 or SM6630B and C

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POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
p-Dichlorobenzene [1,4-Dichlorobenzene]	106-46-7	10	624
3,3'-Dichlorobenzidine	91-94-1	5	625
1,1-Dichloroethane	75-34-3	10	624
1,2-Dichloroethane	107-06-2	10	624
1,1-Dichloroethene [1,1-Dichloroethylene]	75-35-4	10	624
Dichloromethane [Methylene chloride]	75-09-2	20	624
2,4-Dichlorophenol	120-83-2	10	625
1,2-Dichloropropane	78-87-5	10	624
1,3-Dichloropropene [1,3-Dichloropropylene]	542-75-6	10	624
Dicofol [Kelthane]	115-32-2	1	ASTM D5812-96(02)
Dieldrin	60-57-1	0.02	608
Diethyl phthalate	84-66-2	10	625
2,4-Dimethylphenol	105-67-9	10	625
Dimethyl phthalate	131-11-3	10	625
Di-*n*-butyl phthalate	84-74-2	10	625
4,6-Dinitro-*o*-cresol	534-52-1	50	625
2,4 Dinitrophenol	51 28-5	50	625
2,4-Dinitrotoluene	121-14-2	10	625
2,6-Dinitrotoluene	606-20-2	10	625
Di-*n*-Octyl phthalate	117-84-0	10	625
Dioxins/Furans (TCDD Equivalents)			
2,3,7,8-TCDD	1746-01-6	10 ppq	1613B
1,2,3,7,8-PeCDD	40321-76-4	50 ppq	1613B
2,3,7,8-HxCDDs			
1,2,3,4,7,8-HxCDD	39227-28-6	50 ppq	1613B
1,2,3,6,7,8-HxCDD	57653-85-7	50 ppq	1613B
1,2,3,7,8,9-HxCDD	19408-74-3	50 ppq	1613B
1,2,3,4,6,7,8 HpCDD	35822-46-9	50 ppq	1613B
OCDD	3268-87-9	100 ppq	1613B
2,3,7,8-TCDF	51207-31-9	10 ppq	1613B
1,2,3,7,8-PeCDF	57117-41-6	50 ppq	1613B
2,3,4,7,8-PeCDF	57117-31-4	50 ppq	1613B
2,3,7,8-HxCDFs			
1,2,3,4,7,8-HxCDF	70648-26-9	50 ppq	1613B
1,2,3,6,7,8-HxCDF	57117-44-9	50 ppq	1613B
1,2,3,7,8,9-HxCDF	72918-21-9	50 ppq	1613B

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
Chlordane	57-74-9	0 2	608
Chlorobenzene	108-90-7	10	624
Chlorodibromomethane	124-48-1	10	624
Chloroethane	75-00-3	50	624
2-Chloroethylvinyl ether	110-75-8	10	624
Chloroform [Trichloromethane]	67-66-3	10	624
p-Chloro-*m*-cresol	59-50-7	10	625
2-Chloronaphthalene	91-58-7	10	625
2-Chlorophenol	95-57-8	10	625
4-Chlorophenyl phenyl ether	7005-72-3	10	625
Chlorpyrifos	2921-88-2	0.05	1657
Chromium, total	7440-47-3	3	200.8
Chromium, hexavalent	18540-29-9	3	218.6, rev. 3.3
Chromium, trivalent	16065-83-1	***	***
Chrysene	218-01-9	5	625
Copper, total	7440-50-8	2	200.8
Cresols (all isomers)	1319-77-3	10	625
m-Cresol [3-Methylphenol]	108-39-4	10	625
o-Cresol [2-Methylphenol]	95-48-7	10	625
p-Cresol [4-Methylphenol]	106-44-5	10	625
Cyanide, total	57-12-5	10	335.4, 4500-CN D, or 4500-CN E
Cyanide, available	57-12-5	10	4500-CN G
		2	OIA-1677
4,4'-DDD	72-54-8	0 1	608
4,4'-DDE	72-55-9	0.1	608
4,4'-DDT	50-29-3	0 02	608
2,4-D	94-75-7	0.7	615 or SM6640B
Demeton	8065-48-3	0.20	1657
Diazinon	333-41-5	0.5	1657
		0.1	614
Dibenzo(*a,h*)anthracene	53-70-3	5	625
1,2-Dibromoethane	106-93-4	10	1624
m-Dichlorobenzene [1,3-Dichlorobenzene]	541-73-1	10	624
o-Dichlorobenzene [1,2-Dichlorobenzene]	95-50-1	10	624

BCL

BCL

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Minimum Analytical Levels and Suggested Methods for Application Screening

POLLUTANT	CASRN*	MAL (µg/L)	Suggested Method
Acenaphthene	83-32-9	10	625
Acenaphthylene	208-96-8	10	625
Acrolein	107-02-8	50	624
Acrylonitrile	107-13-1	50	624, 1624B
Aldrin	309-00-2	0.01	608
~~Aluminum, total~~	~~7429-90-5~~	~~2.5~~	~~200.8~~ BCL
Aniline	62-53-3	10	625
Anthracene	120-12 7	10	625
~~Antimony, total~~	~~7440-36-0~~	~~5~~	~~200.8~~ BCL
~~Arsenic, total~~	~~7440-38-2~~	~~0.5~~	~~200.8~~ BCL
Asbestos	1332-21-4	—	100 1 and 100.2
~~Barium, total~~	~~7440-39-3~~	~~3~~	~~200.8~~ BCL
Benzene	71-43-2	10	624
Benzidine	92-87-5	50	625
Benzo(*a*)anthracene	56-55-3	5	625
Benzo(*a*)pyrene	50-32-8	5	625
3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	205-99-2	10	625
Benzo(*g,h,i*)perylene	191-24-2	20	625
Benzo(*k*)fluoranthene	207-08-9	5	625
~~Beryllium, total~~	~~7440-41-7~~	~~0.5~~	~~200.8~~ BCL
Bis(2-chloroethoxy)methane	111-91-1	10	625
Bis(2-chloroethyl)ether	111-44-4	10	625
Bis(2-chloroisopropyl)ether	108-60-1	10	625
Bis(chloromethyl)ether	542-88-1	**	**
Bis(2-ethylhexyl)phthalate	117-81-7	10	625
Boron, total	7440-42-8	20	200.7
Bromodichloromethane [Dichlorobromomethane]	75-27-4	10	624
Bromoform	75-25-2	10	624
4-Bromophenyl phenyl ether	101-55-3	10	625
Butylbenzyl phthalate	85-68-7	10	625
~~Cadmium, total~~	~~7440-43-9~~	~~1~~	~~200.8~~ BCL
Carbaryl	63-25-2	5	632
Carbon tetrachloride	56-23-5	2	624

EF *

Login Sample Receipt Checklist

Client: Bio Chem Lab, Inc

Job Number: 860-56414-1

Login Number: 56414
List Number: 1
Creator: Torrez, Lisandra

List Source: Eurofins Houston

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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.	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	

Login Sample Receipt Checklist

Client: Bio Chem Lab, Inc

Job Number: 860-56414-1

Login Number: 56414
List Number: 2
Creator: Pardonner, Brett

List Source: Eurofins Pensacola
List Creation: 09/02/23 11:30 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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	0.6°C IR8
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	
Residual Chlorine Checked.	N/A	

BIO CHEM LAB, INC. PO BOX 356 WEST, TEXAS 76691
PHONE_ 254.829.8001 FAX_254.829.8013

City of McGregor
P.O. Box 192
McGregor, Texas 76657
Attn: Mr. Robert Myers

Date: 10.31.23
Re: Permit Renewal Analysis
Report ID(s): 860-56414-1

FINAL REPORT COVER LETTER – CITY OF McGREGOR

On 8.30.23, Bio Chem Lab, Inc. collected in the field and subsequently received at their facility a grab sample from the **City of McGregor** for analysis. The sample was collected from the contact chamber and was received into the logging system as having parent Sample ID(s): **20421-23**.

The requested analysis was networked to Eurofins on 9.1.23. Their report follows in its entirety and is included as report ID: **860-56414-1**.

We believe this report to be complete for the analysis requested and ready for submission to the client. Prior to release, the data within this report has been reviewed for completion and accuracy. This report will not be reproduced except in its entirety, and only by written request of the above noted client.

For any additional questions / concerns regarding this analytical report please call 254.829.8001. Bio Chem Lab, Inc. and its network laboratory partners are accredited under the the National Environmental Laboratory Accreditation Program (NELAP) and certifies that all reported data meets NELAP requirements, unless otherwise noted.

Sincerely,

A. Shay Ochoa, Senior Environmental Project Manager
Bio Chem Lab, Inc.

THANK YOU FOR ALLOWING BIO CHEM LAB, INC. THE OPPORTUNITY TO BE YOUR ANALYTICAL SERVICE PROVIDER.

BIO CHEM LAB, INC
PO BOX 356
4751 TOKIO ROAD
WEST, TX 76691-0356
E-MAIL: CUSTOMERSERVICE@BIOCHEMLABTX.COM

BCL INC

OFFICE NO.: 254.829.8001
FAX NO.: 254.829.8013
CELL NO.: 254.749.4320
EMERGENCY: 254.749.4320

NELAP ACCREDITED TNI LABORATORY

SERVICE • VISION • COMMUNITY • COMMITMENT

CLIENT / PROJECT: CITY OF MCGREGOR	CONTACT: ROBERT MYERS	COLLECTED BY: Scott Jack
ADDRESS: PO BOX 192	PHONE NO.: 254-359-0561	FIELD DATA: pH DO TEMP
MCGREGOR, TX 76657	EMAIL: RMYERS@MCGREGOR-TEXAS.COM	FLOW DATE/TIME

Sample ID	Obs Temp °C	Corr Temp °C	Sample Name, Site Description or Case Number	Collection Date	Collection Time	Matrix	Container No. / Volume / Type	Grab / Composite	Preservation Code	Verified	Analysis Requested
Laboratory Use Only											
20421-23	2.5	2.3	CONTACT CHAMBER	8.30.23	1449	NPW	2 / 2000 / P	GRAB	1		CBOD / TSS / SO4 / Cl / TDS / EC / TOTAL ALK / FLUORIDE / HEX CHROME / TRI CHROME
							1 / 1000 / P		1,2	1.0	AMMONIA / TKN / PHOS / NITRATE NITROGEN
							1 / 500 / AG		1,2		OIL & GREASE
							1 / 500 / P		3	1.0	TOTAL METALS: Al, Sb, As, Ba, Be, Cd, Cu, Pb, Mg, Ni, Se, Ag, Ti, Zn, Cr
							1 / 120 / M		1		E. COLI
							ASSORTED		1		NETWORK TESTING / SEE ATTACHED LIST

PROJECT COMMENTS / SAMPLING PROCEDURES:

Documentation of TRC / Mn Correction, as needed:

LABORATORY COMMENTS:

PRESERVATIVE	REAGENT ID
H_2SO_4	12333 / 12266
HNO_3	12354
HCl	
NA-OH	
NA-THIO	
OTHER:	

DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	PLACED IN REFRIGERATOR / INITIALS (FRIDGE ID)
8.30.23	1616	Scott Jack	8.30.23	1616	Scott Jack	NPW1 / NPW1

THERMOMETER ID: IR1

Matrix: AQ - Aqueous NPW - Non-Potable Water S - Sludge/Soil/Sediment PW - Potable Water

(1) cool to 4°C (2) H_2SO_4 to pH<2 (3) HNO_3 to pH<2 (4) HCl to pH<2 (5) $Na_2S_2O_3$ (6) NaOH to pH>12 (7) None required (8) Other, as noted

Container: P - Plastic AP - Amber Plastic G - Clear Glass AG - Amber Glass M - Bact / MICRO B - Whirl Pak / BAG VOA - 40 mL vial O - OTHER ___ *Describe:*

pH STRIPS: ✓(0-6): 710011527 ✓(7.5-14): 691019477

CUSTODY SEALS: ✓COOLER ___CONTAINERS ✓NA/NO

SEALS INTACT: ✓YES ___NO

ADDITIONAL PRESERVATION / SAMPLE INTEGRITY NOTES:

REQUESTED TAT: ✓STANDARD (7-10 DAYS) ___BCL EXPRESS (5-6 DAYS) (1.25X) ___BCL PRIORITY (3-4 DAYS) (1.5X) ___BCL FIRE (1-2 DAYS) (2.0X) Rush service availability may depend on logistics and method.

THANK YOU FOR ALLOWING BIO CHEM LAB, INC. THE OPPORTUNITY TO BE YOUR ANALYTICAL SERVICE PROVIDER.