



# 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.

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# Portada de Paquete Técnico

**Este archivo contiene los siguientes documentos:**

1. Resumen de la solicitud (en lenguaje sencillo)
  - Inglés
  - Idioma alternativo (español)
2. Primer aviso (NORI, Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
  - Inglés
  - Idioma alternativo (español)
3. Segundo aviso (NAPD, Aviso de Decisión Preliminar)
  - Inglés
  - Idioma alternativo (español)
4. Materiales de la solicitud \*\*
5. Proyecto de permiso \*\*
6. Resumen técnico u hoja de datos \*\*

\*\* **NOTA:** Esta solicitud se declaró administrativamente completa antes del 1 de junio de 2024. Los materiales de la solicitud, el proyecto de permiso, y los resumen técnico u hoja de datos están disponibles para revisión en la ubicación de consulta pública que se indica en el NAPD.

## Section 15. Plain Language Summary (Instructions Page 40)

This information is required for new, major amendment, and renewal applications. It is not required for minor amendment or minor modification applications.

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.*

Timber Lane UD (CN601442890) operates Timber Lane Utility District Wastewater Treatment Facility (RN102844909). an activated sludge process plant. The facility is located 22802 ½ Grand Rapids Lane, in Spring, Harris County, Texas 77373.

Timber Lane Utility District is applying to amend TPDES Permit No. WQ001142002 (EPA I.D. No. TX 0046680) to remove the effluent limitation and monitoring requirements for the following effluent characteristics; Total Copper, Total Dissolved Solids, and Bis(2-ethylhexyl) phthalate. Timber Lane Utility District is also applying to remove the current UV disinfection system and replace it with a chlorination and dechlorination system for disinfection purposes.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and Escherichia coli. Domestic sewage is treated by a fine screen for preliminary treatment, complete mix, activated sludge biological nitrification for carbon and ammonia oxidation, secondary clarification for suspended solids removal, ultraviolet radiation for disinfection, aerobic digestion.



**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.*

Timber Lane UD (CN601442890) opera La Planta de Tratamiento de Aguas Residuales del Distrito Timber Lane UD (RN102844909), planta de lodos activados que remueve contaminantes de agua residual doméstica y produce un efluente tratado para el ambiente. La planta está localizada en: 22802 ½ Grand Rapids Lane, en la Ciudad de Spring, en el Condado de Harris, Texas 77373.

Timber Lane UD está aplicando para enmendar el TPDES Permiso No. WQ001142002 (EPA I.D. No. TX 0046680) para eliminar los requisitos de limitación y monitoreo de efluentes para las siguientes características de efluentes; Cobre total, sólidos disueltos totales y Bis(2-ethylhexyl) phthalate. El distrito de utilidades de Timber Lane también está solicitando eliminar el actual sistema de desinfección UV y reemplazarlo con un sistema de cloración y declaración con fines de desinfección.

Se espera que las descargas de la instalación contengan: 5-días Demanda biológica de Oxígeno (CBOD5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH<sub>3</sub>-N), nitrógeno nítrico (NO<sub>3</sub>-N), y Escherichia coli. Las aguas residuales domésticas se tratan mediante una pantalla fina para tratamiento preliminar, mixtura completa, nitrificación biológica de lodos activados para oxidación de carbono y amoniacal, clarificación secundaria para la eliminación de sólidos suspendidos, radiación ultravioleta para desinfección, digestión aeróbica.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0011142002

**APPLICATION.** Timber Lane Utility District, 2727 Allen Parkway, Suite 1100, Houston, Texas 77019, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011142002 (EPA I.D. No. TX0046680) to authorize the removal of the effluent discharge limitations and monitoring requirements for the following effluent characteristics: Total Copper, Total Dissolved Solids, and Bis (2-ethylhexyl) phthalate; and removal of the existing UV disinfection system; and a proposed chlorination and dechlorination system for disinfection purposes. The domestic wastewater treatment facility is located at 22801 Grand Rapids Lane, Spring, in Harris County, Texas 77373. The discharge route is from the plant site to Schultz Gully (Harris County Flood Control District ditch), thence to Cypress Creek. TCEQ received this application on March 25, 2024. The permit application will be available for viewing and copying at TCEQ Regional Office - Region 12, 5425 Polk Avenue, Suite H, Houston, 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=-95.388888,30.039722&level=18>

**ALTERNATIVE LANGUAGE NOTICE.** Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

**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](http://www.tceq.texas.gov/goto/cid). Search the database using the permit number for this application, which is provided at the top of this notice.



**AGENCY CONTACTS AND INFORMATION.** All public comments and requests must be submitted either electronically at <https://www14.tceq.texas.gov/epic/eComment/>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at [www.tceq.texas.gov/goto/pep](http://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 Timber Lane Utility District at the address stated above or by calling Mr. Jeffrey W. Vogler, P.E., District Engineer, Vogler & Spencer Engineering, at 713-782-0042.

Issuance Date: May 3, 2024

Jon Niermann, *Chairman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

April 3, 2024

Ms. Lori G. Aylett  
Attorney  
Smith, Murdaugh, Little & Bonham, L.L.P.  
2727 Allen Parkway, Suite 1100  
Houston, Texas 77019

RE: Application to Amend Permit No.: WQ0011142002 (EPA I.D. No. TX0046680)  
Applicant Name: Timber Lane Utility District (CN601442890)  
Site Name: Timber Lane Utility District WWTP (RN102844909)  
Type of Application: Major amendment (without renewal)

### VIA EMAIL

Dear Ms. Aylett:

We have received the application for the above-referenced permit, and it is currently under review. Your attention to the following items are requested before we can declare the application administratively complete. Please submit responses to the following items via email.

1. Section 8, item G on page 7 of the administrative report, Public Involvement Plan (PIP). The PIP is not included with the application. Please use the updated application form TCEQ-10053 (01/19/2024) and complete the PIP.
2. Supplemental Permit Information Form (SPIF), items 5,6,7,8 on pages 19 and 20 of the administrative report: These items were left blank. However, the information is required for new and major amendment applications. Please complete and submit these pages.
3. Section 1, item A, Affected landowner Information on page 16 of the application. Thank you for the landowner map. However, the map submitted is insufficient. As per the landowners' cross-reference list, No. 1, 12, and 13 are indicated as an applicant. Please delineate all the landowners surrounding the applicant's property boundaries which includes boundaries of contiguous property owned by the applicant and update the cross-referenced mailing list as well as the mailing labels accordingly.
4. The following is a portion of the NORI that contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

**APPLICATION.** Timber Lane Utility District, 2727 Allen Parkway, Suite 1100, Houston, Texas 77019, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011142002 (EPA I.D.

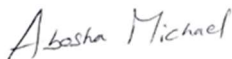
No. TX0046680) to authorize the Removal of the effluent discharge limitations and monitoring requirements from the following effluent characteristics: Total Copper, Total Dissolved Solids, and Bis (2-ethylhexy) phthalate. Removal of the existing UV disinfection system and a proposed chlorination and dechlorination system for disinfection purposes. The domestic wastewater treatment facility is located at 22801 Grand Rapids Lane, in the city of Spring, in Harris County, Texas 77373. The discharge route is from the plant site to Schultz Gully (Harris County Flood Control District ditch), thence to Cypress Creek (**pending RWA confirmation**). TCEQ received this application on March 25, 2024. The permit application will be available for viewing and copying at TCEO Regional Office - Region 12, 5425 Polk Avenue, Suite H, Houston, in Harris County, 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=-95.388888,30.039722&level=18>

Further information may also be obtained from Timber Lane Utility District at the address stated above or by calling Mr. Teffrey W. Vogler, P.E., District Engineer, at 713-782-0042.

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

Please submit the complete response, addressed to my attention by April 3, 2024. If you should have any questions, please do not hesitate to contact me by phone at (512) 239-4912 or by email at [abesha.michael@tceq.texas.gov](mailto:abesha.michael@tceq.texas.gov)

Sincerely,



Abesha Michael  
Applications Review and Processing Team (MC148)  
Water Quality Division  
Texas Commission of Environmental Quality

AHM

Enclosure(s)

cc: Mr. Jeffrey W. Vogler, P.E., District Engineer, Vogler & Spencer Engineering, 777 N. Eldridge Parkway, Suite 500, Houston, Texas 77079



Jon Niermann, *Chairman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 3, 2024

Mr. Jeffrey W. Vogler, P.E.  
District Engineer  
Vogler & Spencer Engineering  
777 N. Eldridge Parkway Suite 500  
Houston, Texas 77079

RE: Declaration of Administrative Completeness  
Applicant Name: Timber Lane Utility District (CN601442890)  
Permit No.: WQ0011142002 (EPA I.D. No. TX0046680)  
Site Name: Timber Lane Utility District WWTP (RN102844909)  
Type of Application: Major amendment (without renewal)

Dear Mr. Vogler:

The executive director has declared the above referenced application, received on March 25, 2024 administratively complete on May 3, 2024.

You are now required to publish notice of your proposed activity and make a copy of the application available for public review. The following items are included to help you meet the regulatory requirements associated with this notice:

- Instructions for Public Notice
- Notice for Newspaper Publication
- Public Notice Verification Form
- Publisher's Affidavits

You must follow all the directions in the enclosed instructions. The most common mistakes are the unauthorized changing of notice, wording, or font. If you fail to follow these instructions, you may be required to republish the notices.

The following requirements are also described in the enclosed instructions. However, due to their importance, they are highlighted here as well.

1. Publish the enclosed notice within **30 calendar days** after your application is declared administratively complete. (See this letter's first paragraph for the declaration date.) **You may be required to publish the notice in more than one newspaper, including a newspaper published in an alternative language, to satisfy all of the notice requirements.**
2. On or before the date you publish notice, place a copy of your permit application in a public place in the county where the facility is or will be located. This copy must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place throughout the comment period.
3. For each publication, submit proof of publication of the notice that shows the publication date and newspaper name to the Office of the Chief Clerk within **30 calendar days** after notice is published in the newspaper.

Ms. Lori G. Aylett  
Page 2  
May 3, 2024  
Permit No. WQ0011142002

4. Return the original enclosed Public Notice Verification and the Publisher's Affidavits to the Office of the Chief Clerk within **30 calendar days** after the notice is published in the newspaper.

If you do not comply with **all** the requirements described in the instructions, further processing of your application may be suspended, or the agency may take other actions.

If you have any questions regarding publication requirements, please contact the Office of Legal Services at (512) 239-0600. If you have any questions regarding the content of the notice, please contact Abesha Michael at (512) 239-4912 or [abesha.michael@tceq.texas.gov](mailto:abesha.michael@tceq.texas.gov).

Sincerely,

A handwritten signature in cursive script that reads "JEBowers".

Jennifer E. Bowers  
Section Manager, Water Quality Division Support  
Office of Water  
Texas Commission of Environmental Quality

JEB/ahm

Enclosures

# Comisión de Calidad Ambiental del Estado de Texas



## **AVISO DE RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA MODIFICACION**

### **PERMISO NO. WQ0011142002**

**SOLICITUD.** Timber Lane Utility District, 2727 Allen Parkway, Suite 1100, Houston, Texas 77019, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0011142002 (EPA I.D. No. TX0046680) para autorizar la eliminación de las limitaciones de descarga de afluentes y requisitos de monitoreo de las siguientes características del efluente: Cobre total, Total sólidos disueltos y ftalato (phthalate) de bis (2-etilhexilo); y eliminación de la desinfección UV existente sistema; y una propuesta de sistema de cloración y de cloración para fines de desinfección. La planta está ubicada en 22801 Grand Rapids Lane, en la ciudad de Spring, en el Condado de Harris, Texas 77373. La ruta de descarga es del sitio de la planta a Schultz Gully (Condado de Harris Flood Control District ditch), de allí hasta Cypress Creek. La TCEQ recibió esta solicitud el 25 de marzo 2024. La solicitud para el permiso está disponible para leerla y copiarla en la oficina regional de TCEQ - Región 12, 5425 Polk Avenue, Suite H, Houston, Texas, antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.388888,30.039722&level=18>

**AVISO ADICIONAL.** El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

**COMENTARIO PUBLICO / REUNION PUBLICA.** Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o



hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

#### **OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO**

**CONTENCIOSO.** Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS:** su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones

**de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

**LISTA DE CORREO.** Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

**CONTACTOS E INFORMACIÓN DE LA TCEQ.** Todos los comentarios escritos del público y los para pedidos una reunión deben ser presentados a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o por el internet at [www.tceq.texas.gov/about/comments.html](http://www.tceq.texas.gov/about/comments.html). Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Si necesita más información en Español sobre esta solicitud para un permiso o el proceso del permiso, por favor llame a El Programa de Educación Pública de la TCEQ, sin cobro, al 1-800-687-4040. La información general sobre la TCEQ puede ser encontrada en nuestro sitio de la red: [www.tceq.texas.gov](http://www.tceq.texas.gov).

También se puede obtener información adicional de Timber Lane Utility District a la dirección indicada arriba o llamando a Sr. Jeffrey W. Vogler, P.E., District Engineer, Vogler & Spencer Engineering al 713-782-0042.

Fecha de emisión Mayo 3, 2024

# Texas Commission on Environmental Quality



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

### AMENDMENT

**PERMIT NO. WQ0011142002**

**APPLICATION AND PRELIMINARY DECISION.** Timber Lane Utility District, 2727 Allen Parkway, Suite 1100, Houston, Texas 77019, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011142002, to authorize removal of the effluent discharge limits and monitoring requirements for Total Copper, TDS, and Bis(2-ethylhexyl)phthalate; removal of the existing UV disinfection system in the Final phase; and addition of a proposed chlorination and dechlorination system for disinfection purposes. The permittee performed a site-specific copper criteria study at the point of discharge from the Timber Lane Utility District Wastewater Treatment Facility to determine a site-specific water-effect ratio (WER) for copper. The permittee determined that the site specific WER is 8.95 for total copper and 9.05 for dissolved copper. Therefore, the draft permit revises the effluent limits for total copper, based on the WERs. The current permit authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 2,620,000 gallons per day. TCEQ received this application on March 25, 2024.

The facility is located at 22801 Grand Rapids Lane, in the City of Spring, Harris County, Texas 77373. The treated effluent is discharged to Schultz Gully (Harris County Flood Control District ditch K116-00-00), thence to Cypress Creek in Segment No. 1009 of the San Jacinto River Basin. The unclassified receiving water use is high aquatic life use for Schultz Gully (Harris County Flood Control District ditch K116-00-00). The designated uses for Segment No. 1009 are primary contact recreation, public water supply, and high aquatic life use. In accordance with 30 Texas Administrative Code §307.5 and 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 Schultz Gully (Harris County Flood Control District ditch K116-00-00) or Cypress Creek, which have been identified as having high aquatic life use. 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=-95.388888,30.039722&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 TCEQ Regional Office - Region 12, 5425 Polk Avenue, Suite H, Houston, in Harris County, Texas. The application, including any updates, and associated notices are available electronically at the following webpage:

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

**ALTERNATIVE LANGUAGE NOTICE.** Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

**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](http://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](http://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](http://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](http://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 Timber Lane Utility District at the address stated above or by calling Mr. Jeffrey Vogler, P.E., District Engineer, Vogler & Spencer Engineering, at 713-782-0042.

Issuance Date: July 17, 2025

# Comisión De Calidad Ambiental Del Estado De Texas



## **AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL PERMISO DEL SISTEMA DE ELIMINACION DE DESCARGAS DE CONTAMINANTES DE TEXAS (TPDES) PARA AGUAS RESIDUALES MUNICIPALES**

### **MODIFICACIÓN**

#### **PERMISO NO. WQ0011142002**

**SOLICITUD Y DECISIÓN PRELIMINAR.** Timber Lane Utility District, 2727 Allen Parkway, Suite 1100, Houston, Texas 77019 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para una enmienda mayor al permiso del sistema de eliminación de descargas de contaminantes de Texas (TPDES) No. WQ0011142002. Esta enmienda autorizaría la eliminación de los límites de descarga de efluentes y los requisitos de monitoreo para Cobre Total, Sólidos Disueltos Totales (TDS), y Bis(2-etilhexil)ftalato; la eliminación del sistema de desinfección UV existente en la fase final; y la adición de un sistema propuesto de cloración y de cloración con fines de desinfección.

El titular del permiso llevo a cabo un estudio de criterios específicos para el cobre en el sitio de descarga de la Planta de Tratamiento de Aguas Residuales de Timber Lane Utility District, con el fin de determinar una relación de efecto de agua específica del sitio (WER) para el cobre. Se determino que la WER específica del sitio es de 8.95 para el cobre total y 9.05 para cobre disuelto. Por lo tanto, el borrador del permiso revisa los limites del efluente para cobre total, basándose en los valores WER. El permiso actual autoriza la descarga de aguas residuales domesticas tratadas con un flujo promedio anual que no exceda los 2,620,000 galones por día. la TCEQ recibió esta solicitud el 25 de marzo del 2024.

La planta está ubicada en 22801 Grand Rapids Lane, en la Ciudad de Spring en el Condado de Harris, Texas 77373. El efluente tratado es descargado al Schultz Gully (Harris County Flood Control District ditch K116-00-00), y de ahí a Cypress Creek en el Segmento No. 1009 de la Cuenca del Río San Jacinto. Los usos no clasificados de las aguas receptoras son de alto valor para la vida acuática para Schultz Gully (canal K116-00-00). Los usos designados para el Segmento No. 1009 son recreación de contacto primario de abastecimiento de agua publica y elevado uso de vida acuática. De acuerdo con la 30 TAC §307.5 y los procedimientos de implementación de la TCEQ (Enero 2010) para las Normas de Calidad de Aguas Superficiales en Texas, fue realizada una revisión de la antidegradación de las aguas recibidas. Una revisión de antidegradación del Nivel 1 ha determinado preliminarmente que los usos de la calidad del agua existente no serán perjudicados por la acción de este permiso. Se mantendrá un criterio narrativo y numérico para proteger los usos existentes. Una revisión del Nivel 2 ha determinado preliminarmente que no se espera ninguna degradación significativa en la calidad del agua en Schultz Gully (canal K116-00-00) ni en Cypress Creek, el cual se ha identificado que tiene alto usos en la vida acuática. Los usos existentes serán mantenidos y protegidos. La determinación preliminar puede ser reexaminada y puede ser modificada, si se recibe alguna información nueva.

Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.388888,30.039722&level=18>

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en TCEQ Regional Office - Region 12, 5425 Polk Avenue, Suite H, Houston, in Harris County, Texas. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

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

**AVISO DE IDIOMA ALTERNATIVO.** El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notice>.

**COMENTARIO PUBLICO / REUNION PUBLICA** El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

#### **OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.**

Después de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará los comentarios y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **A menos que la solicitud sea remitida directamente para una audiencia de caso impugnado, la respuesta a los comentarios se enviará por correo a todos los que enviaron comentarios públicos y a aquellas personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar una audiencia de caso impugnado o reconsiderar la decisión del Director Ejecutivo.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS:** su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

**Tras el cierre de todos los periodos de comentarios y solicitudes aplicables, el Director Ejecutivo remitirá la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.**

**La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

**ACCIÓN DEL DIRECTOR EJECUTIVO.** El Director Ejecutivo puede emitir la aprobación final de la solicitud a menos que se presente una solicitud de audiencia de caso impugnado oportunamente o una solicitud de reconsideración. Si se presenta una solicitud de audiencia oportuna o una solicitud de reconsideración, el Director Ejecutivo no emitirá la aprobación final del permiso y enviará la solicitud y la solicitud a los Comisionados de TCEQ para su consideración en una reunión programada de la Comisión.

**LISTA DE CORREO.** Si envía comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir futuros avisos públicos enviados por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Si desea ser colocado en la lista de correo permanente y / o del condado, especifique claramente qué lista (s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

**Todos los comentarios públicos escritos y las solicitudes de reunión pública deben enviarse a Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o electrónicamente a [www.tceq.texas.gov/goto/comment](http://www.tceq.texas.gov/goto/comment) dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico.**

**CONTACTOS E INFORMACIÓN DE LA AGENCIA.** Los comentarios y solicitudes públicas deben enviarse electrónicamente a [www.tceq.texas.gov/goto/comment](http://www.tceq.texas.gov/goto/comment), o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que envíe a la TCEQ pasará a formar parte del registro de la agencia; esto incluye las direcciones de correo electrónico. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de TCEQ, línea gratuita, al 1-800-687-4040 o visite su sitio web en [www.tceq.texas.gov/goto/pep](http://www.tceq.texas.gov/goto/pep). Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Sr. Jeffrey Vogler, P.E., District Engineer, Vogler & Spencer Engineering, llamando a 713-782-0042.

Fecha de emission: 17 de julio de 2025



TPDES PERMIT NO. WQ0011142002  
*[For TCEQ office use only - EPA I.D.  
No. TX0046680]*

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

This major amendment without  
renewals supersedes and replaces  
TPDES Permit No. WQ0011142002  
issued on July 11, 2023.

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

Timber Lane Utility District

whose mailing address is

2727 Allen Parkway, Suite 1100  
Houston, Texas 77019

is authorized to treat and discharge wastes from the Timber Lane Utility District Wastewater  
Treatment Facility, SIC Code 4952

located at 22801 Grand Rapids Lane, in the City of Spring, Harris County, Texas 77373

to Schultz Gully (Harris County Flood Control District ditch K116-00-00), thence to Cypress  
Creek in Segment No. 1009 of the San Jacinto 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, **July 11, 2028**.

ISSUED DATE:

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For the Commission



INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of expansion to the 2.62 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 2.25 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,250 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)						
March-November	7 (131)	11	17	25	Two/week	Composite
December-February	10 (188)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (282)	25	40	60	Two/week	Composite
Ammonia Nitrogen						
March-November	2 (38)	5	10	15	Two/week	Composite
December-February	3 (56)	6	10	15	Two/week	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	63	N/A	200	N/A	One/day	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. 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 REQUIREMENTSOutfall Number 001

1. During the period beginning upon the completion of expansion to the 2.62 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 2.62 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 7,278 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 Oxygen Demand (5-day)						
March-November	7 (153)	11	17	25	Two/week	Composite
December-February	10 (219)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (328)	25	40	60	Two/week	Composite
Ammonia Nitrogen						
March-November	2 (44)	5	10	15	Two/week	Composite
December-February	3 (66)	6	10	15	Two/week	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	63	N/A	200	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 March-November and 5.0 mg/l December-February 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.

## 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  $n$ th 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 12) 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 30<sup>th</sup> 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 12) and the Enforcement Division (MC 224).

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

TABLE 1

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

<u>Amount of biosolids (*) metric tons per 365-day period</u>	<u>Monitoring Frequency</u>
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 landfill) 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

<u>Pollutant</u>	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

<u>Pollutant</u>	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 30<sup>th</sup> 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 12) 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 12) 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 12) 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 30<sup>th</sup> 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 12) 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 30<sup>th</sup> 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 12) and the Enforcement Division (MC 224).

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

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**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.

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

2. Chronic toxic criteria apply at the edge of the chronic aquatic life mixing zone. The chronic aquatic life mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.
3. 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).
4. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
5. The permittee shall comply with 30 TAC § 311.36, which requires the permittees of all domestic wastewater treatment facilities discharging into the Lake Houston Watershed to install dual-feed chlorination systems capable of automatically changing from one cylinder to another if gaseous chlorination is used for disinfection.
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, one/day may be reduced to five/week in the Interim phase and one/week may be reduced to two/month in 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 construction of the Final phase (2.62 MGD) treatment facility, 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 2a 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 notify the TCEQ Regional Office (MC Region 12) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, as well as the Harris County Pollution Control Services Department, in writing at least forty-five (45) days prior to the completion of the Final phase facilities, on Notification of Completion Form 20007.
9. A certified operator shall inspect the facility daily, and maintain at the plant site a record of these inspections. These records shall be available at the plant site for inspection by authorized representatives of the commission for at least three years. This requirement expires at the conclusion of this permit term, but may be continued in the next permit action.

**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 31%, 41%, 55%, 74%, and 98% effluent. The critical dilution, defined as 98% 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

No. 1 FROM: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ TO: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

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%	31%	41%	55%	74%	98%
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 (98%): \_\_\_\_\_ YES \_\_\_\_\_ NO

## PERCENT SURVIVAL

Time of Reading	Percent effluent					
	0%	31%	41%	55%	74%	98%
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 (98%): \_\_\_\_\_ 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      No. 1 FROM: \_\_\_\_\_ Date    Time      TO: \_\_\_\_\_ Date    Time  
 Composites  
 Collected      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%							
31%							
41%							
55%							
74%							
98%							
PMSD							

\* Coefficient of Variation = standard deviation x 100/mean

- 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 (98%): \_\_\_\_\_ 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%									
31%									
41%									
55%									
74%									
98%									

\* 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 (98%): \_\_\_\_\_ 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 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 LC<sub>50</sub> below:

24 hour LC<sub>50</sub> = \_\_\_\_\_% 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 LC<sub>50</sub> below:

24 hour LC<sub>50</sub> = \_\_\_\_\_% effluent

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0011142002, EPA I.D. No. TX0046680, to discharge to water in the state.

Issuing Office: Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Applicant: Timber Lane Utility District  
2727 Allen Parkway, Suite 1100  
Houston, Texas 77019

Prepared By: Abdur Rahim  
Municipal Permits Team  
Wastewater Permitting Section (MC 148)  
Water Quality Division  
(512) 239-0504

Date: April 15, 2025

Permit Action: Major Amendment

### 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 the current expiration date of **July 11, 2028**.

### 2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of the existing permit to authorize, removal of the effluent discharge limits and monitoring requirements for Total Copper, TDS, and Bis(2-ethylhexyl)phthalate; removal of the existing UV disinfection system in the Final phase and addition of a proposed chlorination and dechlorination system for disinfection purposes. The current permit authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 2,620,000 gallons per day. The existing wastewater treatment facility serves the Timber Lane Utility District.

### 3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 22801 Grand Rapids Lane, in the City of Spring, Harris County, Texas 77373.

#### Outfall Location:

Outfall Number	Latitude	Longitude
001	30.040103 N	95.387639 W

The treated effluent is discharged to Schultz Gully (Harris County Flood Control District



ditch K116-00-00), thence to Cypress Creek in Segment No. 1009 of the San Jacinto River Basin. The unclassified receiving water use is high aquatic life use for Schultz Gully (Harris County Flood Control District ditch K116-00-00). The designated uses for Segment No. 1009 are primary contact recreation, public water supply, and high aquatic life use.

#### **4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL**

The Timber Lane Utility District Wastewater Treatment Facility is an activated sludge process plant operated in the complete mix mode. Treatment units in the Interim phase include a bar screen, three aeration basins, two final clarifiers, six aerobic sludge digesters, a gravity thickener, and three Ultraviolet Light (UV) disinfection channels. Treatment units in the Final phase include a bar screen, three aeration basins, two final clarifiers, eight aerobic sludge digesters, a gravity thickener, three chlorine contact basins and a dechlorination system. 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, McCarty Road Landfill, Permit No. 261B, in Harris 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 facility does not appear to receive significant industrial wastewater contributions.

#### **6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES**

The following is a summary of the applicant's effluent monitoring data for the period from July 2021 through July 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<sub>5</sub>), total suspended solids (TSS), ammonia nitrogen (NH<sub>3</sub>-N), and Total Copper, Total Dissolved Solids, and Bis(2-ethylhexyl)phthalate. The average of Daily Average value for *Escherichia coli* (*E. coli*) in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

<u>Parameter</u>	<u>Average of Daily Avg</u>
Flow, MGD	1.44
CBOD <sub>5</sub> , mg/l	
March-November	2.54
December-February	2.67
TSS, mg/l	3.39
NH <sub>3</sub> -N, mg/l	
March-November	0.14
December-February	0.25
Total Copper	0.0051
Total Dissolved Solids	471.64
Bis(2-ethylhexyl)phthalate	0.81

*E. coli*, CFU or MPN per 100 ml

14

## 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 PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 2.25 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,250 gallons per minute.

<u>Parameter</u>	<u>30-Day Average</u>		<u>7-Day Average</u>	<u>Daily Maximum</u>
	<u>mg/l</u>	<u>lbs/day</u>	<u>mg/l</u>	<u>mg/l</u>
CBOD <sub>5</sub>				
March-November	7	131	11	17
December-February	10	188	15	25
TSS	15	282	25	40
NH <sub>3</sub> -N				
March-November	2	38	5	10
December-February	3	56	6	10
Dissolved Oxygen (DO)(minimum)				
March-November	6.0	N/A	N/A	N/A
December-February	5.0	N/A	N/A	N/A
<i>E. coli</i> , CFU or MPN per 100 ml	63	N/A	N/A	200

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 permittee shall utilize an UV system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

<u>Parameter</u>	<u>Monitoring Requirement</u>
Flow, MGD	Continuous
CBOD <sub>5</sub>	Two/week
TSS	Two/week
NH <sub>3</sub> -N	Two/week
DO	Two/week
<i>E. coli</i>	Daily

### B. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 2.62 MGD, nor shall the

average discharge during any two-hour period (2-hour peak) exceed 7,278 gallons per minute.

<u>Parameter</u>	<u>30-Day Average</u>		<u>7-Day</u>	<u>Daily</u>
	<u>mg/l</u>	<u>lbs/day</u>	<u>Average</u> <u>mg/l</u>	<u>Maximum</u> <u>mg/l</u>
CBOD <sub>5</sub>				
March-November	7	153	11	17
December-February	10	219	15	25
TSS	15	328	25	40
NH <sub>3</sub> -N				
March-November	2	44	5	10
December-February	3	66	6	10
DO (minimum)				
March-November	6.0	N/A	N/A	N/A
December-February	5.0	N/A	N/A	N/A
<i>E. coli</i> , CFU or MPN per 100 ml	63	N/A	N/A	200

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 at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

<u>Parameter</u>	<u>Monitoring Requirement</u>
Flow, MGD	Continuous
CBOD <sub>5</sub>	Two/week
TSS	Two/week
NH <sub>3</sub> -N	Two/week
DO	Two/week
<i>E. coli</i>	One/week

#### C. 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, McCarty Road Landfill, Permit No. 261B, in Harris 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.

#### D. 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.

E. 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 31%, 41%, 55%, 74%, and 98%. The low-flow effluent concentration (critical dilution) is defined as 98% 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*).

F. SUMMARY OF CHANGES FROM APPLICATION

None.

G. SUMMARY OF CHANGES FROM EXISTING PERMIT

The monitoring requirements for Total Copper, TDS, and Bis(2-ethylhexyl)phthalate has been removed from the existing permit and replaced UV disinfection system in the Final phase with chlorination and dechlorination

process as per applicant's major amendment request in the application.

The permit effluent limits for total copper have been removed from the existing permit based on the results of a copper water-effects ratio (WER) study. The EPA has reviewed the study and recalculated the WER value based on the Biotic Ligand Model (BLM). In a letter dated August 15, 2023, the EPA indicated that a BLM-derived dissolved copper WER of 3.11 is appropriate when considering the need for permit limits or monitoring requirements for copper. The dissolved copper WER of 3.11 should be used to reevaluate the need for copper limits or monitoring requirements for this facility and the permittee's request to remove copper limits.

The facility's location description in the existing permit has been updated to state: located at 22801 Grand Rapids Lane, in the City of Spring, Harris County, Texas 77373.

Other Requirement No. 7 of the existing permit has been removed as it is no longer necessary.

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

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.

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

## **8. DRAFT PERMIT RATIONALE**

### **A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS**

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

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

### **B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN**

#### **(1) WATER QUALITY SUMMARY**

The treated effluent is discharged to Schultz Gully (Harris County Flood Control District ditch K116-00-00), thence to Cypress Creek in Segment No. 1009 of the San Jacinto River Basin. The unclassified receiving water use is high aquatic life use for Schultz Gully (Harris County Flood Control District ditch K116-00-00). The designated uses for Segment No. 1009 are primary contact recreation, public water supply, and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. In accordance with 30 Texas Administrative Code §307.5 and 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 Schultz Gully (Harris County Flood Control District ditch K116-00-00) or Cypress Creek, which have been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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. 1009 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 472 mg/l total dissolved solids (TDS), 27.7 mg/l sulfate, and 82.1 mg/l chloride present in the effluent. The segment criteria for Segment No. 1009 are 600 mg/l for TDS, 50 mg/l for sulfate, and 100 mg/l for chlorides. Based on dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment A of this Fact Sheet.

One finalized Total Maximum Daily Load (TMDL) Project is available for this segment: *Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston For Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and*

1011 (Project No. 82). Addendums to the original Project No. 82 TMDL subsequently added additional assessment units to the original TMDL project. On April 6, 2011, the TCEQ adopted *Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston*. The EPA approved the TMDL on June 29, 2011. The TMDL addresses elevated levels of bacteria in nine classified and unclassified segments (Stewarts Creek - 1004E; Spring Creek - 1008; Willow Creek - 1008H; Cypress Creek - 1009; Faulkey Gully - 1009C; Spring Gully - 1009D; Little Cypress Creek - 1009E; Caney Creek - 1010; and Peach Creek - 1011) in this watershed. This project takes a watershed approach, so all assessment units in the TMDL segments and in several additional unclassified segments (Mill Creek - 1008A; Upper Panther Branch - 1008B; Lower Panther Branch - 1008C; Metzler Creek - 1008D; Bear Branch - 1008E; Walnut Creek - 1008I; Brushy Creek - 1008J; Arnold Branch - 1008K; Mink Branch - 1008L; Sulphur Branch - 1008M; Dry Creek - 1009A; Dry Gully - 1009B; Mound Creek - 1009F; Dry Gully - 1009G; Dry Creek - 1010A; White Oak Creek - 1010B; and Spring Branch - 1010C) are also subject to this TMDL.

The waste load allocation (WLA) for wastewater treatment facilities was established as the permitted flow for each facility multiplied by one-half the geometric mean criterion for bacteria. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the limits of one-half the bacteria geometric mean criterion for *E. coli*. To ensure that effluent limitations for this discharge are consistent with the WLAs provided in the TMDL, a concentration based effluent limitation for *E. coli* of 63 CFU or MPN per 100 ml has been included in the draft permit.

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. The effluent limitations and/or conditions in the draft permit comply with the requirements in 30 TAC Chapter 311: Watershed Protection, Subchapter D: Water Quality Management within Lake Houston Watershed.

(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 existing limits are consistent with the approved WQMP.

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

(3) COASTAL MANAGEMENT PLAN

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

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

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

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters Schultz Gully (HCFCD ditch K116-00-00). The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters Schultz Gully (HCFCD ditch K116-00-00).

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 2.62 MGD and the 7-day, 2-year (7Q2) flow of 0.1 cfs for Schultz Gully (HCFCD ditch K116-00-00). The estimated dilution at the edge of the ZID is calculated using the permitted flow of 2.62 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %:	99.39%	Chronic Effluent %:	97.59%
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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 90<sup>th</sup> 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 LTA 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 99<sup>th</sup> 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 47 mg/l for hardness (as calcium carbonate), 100 mg/l chlorides, 7.2 standard units for pH, and 13 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.

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data for 'Chlordane' exceeds 85% of the calculated daily average water quality-based effluent limitations for aquatic life protection.

The permittee was asked to retest 'Chlordane'. Permittee submitted a total of four tests for 'Chlordane' sampled on April 29, May 1, May 5, and May 7, 2025, with the following results:

Sample Date	Chlordane (µg/l)
4/29/2025	<0.20
5/1/2025	<0.15
5/5/2025	<0.15
5/7/2025	<0.15

Following the four retests, the average value of 'Chlordane' did not exceed 70% of the calculated daily average water quality-based effluent limitations and will not require any reporting requirement or effluent limitation for 'Chlordane'.

(3) **AQUATIC ORGANISM BIOACCUMULATION CRITERIA**

(a) **SCREENING**

**Discharges to Schultz Gully (HCFCD ditch K116-00-00)**

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue and drinking water found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation and drinking water criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 2.62 MGD and the harmonic mean flow of 0.2 cfs for Schultz Gully (HCFCD ditch K116-00-00). The following critical effluent percentage is being used:

Human Health Effluent %: 95.30%

**Discharges to Cypress Creek**

The Water Quality Assessment section also recommended also running Texas Toxicity screening for Cypress Creek. Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue and drinking water found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation and drinking water criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the final permitted flow of 2.62 MGD and the harmonic mean flow of 61.86 cfs for Cypress Creek. The following critical effluent percentage is being used:

Human Health Effluent %: 6.15%

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 99<sup>th</sup> percentile confidence level in the long-term average calculation is used with only one long-term average value being calculated.

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

(b) PERMIT ACTION

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

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1009, which receives the discharge from this facility, is designated as a public water supply. The screening procedure used to calculate water quality-based effluent limitations and determine the need for effluent limitations or monitoring requirements is identical to the procedure outlined in the aquatic organism bioaccumulation section of this fact sheet. Criteria used in the calculation of water quality-based effluent limitations for the protection of a drinking water supply are outlined in Table 2 (Water and Fish) of the Texas Surface Water Quality Standards (30 TAC Chapter 307). These criteria are developed from either drinking water maximum contaminant level (MCL) criteria outlined in 30 TAC Chapter 290 or from the combined human health effects of exposure to consumption of fish tissue and ingestion of drinking water.

(b) PERMIT ACTION

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

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of

potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

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

A reasonable potential (RP) determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of chronic WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015. With zero failures, a determination of no RP was made. WET limits are not required and both test species may be eligible for the testing frequency reduction after one year of quarterly testing.

(b) PERMIT ACTION

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

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

(a) SCREENING

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

(b) PERMIT ACTION

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

life of the permit.

**9. WATER QUALITY VARIANCE REQUESTS**

No variance requests have been received.

**10. PROCEDURES FOR FINAL DECISION**

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

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

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

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

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

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

either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Abdur Rahim at (512) 239-0504.

## **11. ADMINISTRATIVE RECORD**

The following items were considered in developing the draft permit:

### **A. PERMIT(S)**

TPDES Permit No. WQ0011142002 issued on July 11, 2023.

### **B. APPLICATION**

Application received on March 25, 2024, and additional information received on April 15, 2024, April 8, 2025, and June 16, 2025.

### **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.

TMDL Project *Fifteen Total Maximum Daily Loads for Indicator Bacteria in Watersheds Upstream of Lake Houston for Segment Numbers 1004E, 1008, 1008H, 1009, 1009C, 1009D, 1009E, 1010, and 1011* (Project No. 82).

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

### Menu 3 - Discharge to a Perennial Stream or River

<b>Applicant Name:</b>	<b>Timber Lane Utility District</b>
<b>Permit Number, Outfall:</b>	<b>11142-002</b>
<b>Segment Number:</b>	<b>1009-Cypress Creek</b>

Enter values needed for screening:		Data Source (edit if different)	
QE - Average effluent flow	<b>2.62</b> MGD	Permit application	
QS - Perennial stream harmonic mean flow	<b>0.20</b> cfs	Critical conditions memo	
QE - Average effluent flow	<b>4.0537</b> cfs	Calculated	
CA - TDS - ambient segment concentration	<b>388</b> mg/L	2010 IP, Appendix D	
CA - chloride - ambient segment concentration	<b>57</b> mg/L	2010 IP, Appendix D	
CA - sulfate - ambient segment concentration	<b>19</b> mg/L	2010 IP, Appendix D	
CC - TDS - segment criterion	<b>600</b> mg/L	2018 TSWQS, Appendix A	
CC - chloride - segment criterion	<b>100</b> mg/L	2018 TSWQS, Appendix A	
CC - sulfate - segment criterion	<b>50</b> mg/L	2018 TSWQS, Appendix A	
CE - TDS - average effluent concentration	<b>472</b> mg/L	Permit application	
CE - chloride - average effluent concentration	<b>82.1</b> mg/L	Permit application	
CE - sulfate - average effluent concentration	<b>27.7</b> mg/L	Permit application	

#### Screening Equation

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

#### Permit Limit Calculations

##### TDS

Calculate the WLA	WLA = $[CC(QE+QS) - (QS)(CA)] / QE$	<b>610.46</b>	
Calculate the LTA	LTA = WLA * 0.93	<b>567.73</b>	
Calculate the daily average	Daily Avg. = LTA * 1.47	<b>834.56</b>	
Calculate the daily maximum	Daily Max. = LTA * 3.11	<b>1765.63</b>	
Calculate 70% of the daily average	70% of Daily Avg. =	<b>584.19</b>	
Calculate 85% of the daily average	85% of Daily Avg. =	<b>709.38</b>	
<b>No permit limitations needed if:</b>	<b>472</b> ≤	<b>584.19</b>	
<b>Reporting needed if:</b>	<b>472</b> >	<b>584.19</b>	<b>but ≤ 709.38</b>
<b>Permit limits may be needed if:</b>	<b>472</b> >	<b>709.38</b>	

**No permit limitations needed for TDS**

**Chloride**

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	102.12		
Calculate the LTA	LTA = WLA * 0.93	94.97		
Calculate the daily average	Daily Avg. = LTA * 1.47	<b>139.61</b>		
Calculate the daily maximum	Daily Max. = LTA * 3.11	<b>295.37</b>		
Calculate 70% of the daily average	70% of Daily Avg. =	97.73		
Calculate 85% of the daily average	85% of Daily Avg. =	118.67		
<b>No permit limitations needed if:</b>	<b>82.1</b>	<b>≤</b>	<b>97.73</b>	
<b>Reporting needed if:</b>	<b>82.1</b>	<b>&gt;</b>	<b>97.73</b>	<b>but ≤ 118.67</b>
<b>Permit limits may be needed if:</b>	<b>82.1</b>	<b>&gt;</b>	<b>118.67</b>	

**No permit limitations needed for chloride**

**Sulfate**

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	51.53		
Calculate the LTA	LTA = WLA * 0.93	47.92		
Calculate the daily average	Daily Avg. = LTA * 1.47	<b>70.45</b>		
Calculate the daily maximum	Daily Max. = LTA * 3.11	<b>149.04</b>		
Calculate 70% of the daily average	70% of Daily Avg. =	49.31		
Calculate 85% of the daily average	85% of Daily Avg. =	59.88		
<b>No permit limitations needed if:</b>	<b>27.7</b>	<b>≤</b>	<b>49.31</b>	
<b>Reporting needed if:</b>	<b>27.7</b>	<b>&gt;</b>	<b>49.31</b>	<b>but ≤ 59.88</b>
<b>Permit limits may be needed if:</b>	<b>27.7</b>	<b>&gt;</b>	<b>59.88</b>	

**No permit limitations needed for sulfate**

**Attachment C: Calculated Water Quality Based Effluent Limitations**



# Timber Lane Utility District TPDES Permit No. WQ0011142002 Fact Sheet and Executive Director's Preliminary Decision

## 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:	Timber Lane Utility District
TPDES Permit No.:	WQ0011142002
Outfall No.:	001
Prepared by:	Abdur Rahim
Date:	April 4, 2025

### DISCHARGE INFORMATION

Receiving Waterbody:	Schultz Gully (HCFCD ditch K116-00-00)
Segment No.:	1009
TSS (mg/L):	13
pH (Standard Units):	7.2
Hardness (mg/L as CaCO <sub>3</sub> ):	47
Chloride (mg/L):	58
Effluent Flow for Aquatic Life (MGD):	2.62
Critical Low Flow [7Q2] (cfs):	0.1
% Effluent for Chronic Aquatic Life (Mixing Zone):	97.59
% Effluent for Acute Aquatic Life (ZID):	99.39
Effluent Flow for Human Health (MGD):	2.62
Harmonic Mean Flow (cfs):	0.2
% Effluent for Human Health:	95.30
Human Health Criterion (select: PWS, FISH, or INC)	FISH

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

<i>Stream/River Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient t (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	73590.43	0.511		1.00	Assumed
Cadmium	6.60	-1.13	219403.73	0.260		1.00	Assumed
Chromium (total)	6.52	-0.93	304812.44	0.202		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	304812.44	0.202		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	156921.31	0.329		3.11	Assumed
Lead	6.45	-0.80	362114.00	0.175		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	113514.75	0.404		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	170859.19	0.310		1.00	Assumed
Zinc	6.10	-0.70	209044.94	0.269		1.00	Assumed

### AQUATIC LIFE

#### CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>FW Chronic Criterion (µg/L)</i>	<i>WLAa (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTAa (µg/L)</i>	<i>LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Aldrin	3.0	N/A	3.02	N/A	1.73	N/A	2.54	5.37
Aluminum	991	N/A	997	N/A	571	N/A	839	1776
Arsenic	340	150	669	301	384	232	340	720
Cadmium	4.1	0.145	16.0	0.574	9.14	0.442	0.650	1.37
Carbaryl	2.0	N/A	2.01	N/A	1.15	N/A	1.69	3.58
Chlordane	2.4	0.004	2.41	0.00410	1.38	0.00316	0.00463	0.00981

Timber Lane Utility District TPDES Permit No. WQ0011142002  
Fact Sheet and Executive Director's Preliminary Decision

Chlorpyrifos	0.083	0.041	0.0835	0.0420	0.0479	0.0323	0.0475	0.100
Chromium (trivalent)	307	40	1533	203	878	156	229	486
Chromium (hexavalent)	15.7	10.6	15.8	10.9	9.05	8.36	12.2	26.0
Copper	21.7	15.4	66.3	48.1	38.0	37.1	54.4	115
Cyanide (free)	45.8	10.7	46.1	11.0	26.4	8.44	12.4	26.2
4,4'-DDT	1.1	0.001	1.11	0.00102	0.634	0.000789	0.00115	0.00245
Demeton	N/A	0.1	N/A	0.102	N/A	0.0789	0.115	0.245
Diazinon	0.17	0.17	0.171	0.174	0.0980	0.134	0.144	0.304
Dicofol [Kelthane]	59.3	19.8	59.7	20.3	34.2	15.6	22.9	48.5
Dieldrin	0.24	0.002	0.241	0.00205	0.138	0.00158	0.00231	0.00490
Diuron	210	70	211	71.7	121	55.2	81.1	171
Endosulfan I ( <i>alpha</i> )	0.22	0.056	0.221	0.0574	0.127	0.0442	0.0649	0.137
Endosulfan II ( <i>beta</i> )	0.22	0.056	0.221	0.0574	0.127	0.0442	0.0649	0.137
Endosulfan sulfate	0.22	0.056	0.221	0.0574	0.127	0.0442	0.0649	0.137
Endrin	0.086	0.002	0.0865	0.00205	0.0496	0.00158	0.00231	0.00490
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0102	N/A	0.00789	0.0115	0.0245
Heptachlor	0.52	0.004	0.523	0.00410	0.300	0.00316	0.00463	0.00981
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	1.126	0.08	1.13	0.0820	0.649	0.0631	0.0927	0.196
Lead	28	1.10	162	6.41	92.6	4.94	7.25	15.3
Malathion	N/A	0.01	N/A	0.0102	N/A	0.00789	0.0115	0.0245
Mercury	2.4	1.3	2.41	1.33	1.38	1.03	1.50	3.18
Methoxychlor	N/A	0.03	N/A	0.0307	N/A	0.0237	0.0347	0.0736
Mirex	N/A	0.001	N/A	0.00102	N/A	0.000789	0.00115	0.00245
Nickel	247	27.5	616	69.7	353	53.6	78.8	166
Nonylphenol	28	6.6	28.2	6.76	16.1	5.21	7.65	16.1
Parathion (ethyl)	0.065	0.013	0.0654	0.0133	0.0375	0.0103	0.0150	0.0318
Pentachlorophenol	10.7	8.2	10.7	8.38	6.15	6.46	9.03	19.1
Phenanthrene	30	30	30.2	30.7	17.3	23.7	25.4	53.7
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.01	0.0143	1.15	0.0110	0.0162	0.0343
Selenium	20	5	20.1	5.12	11.5	3.94	5.79	12.2
Silver	0.8	N/A	12.9	N/A	7.42	N/A	10.9	23.0
								0.00049
Toxaphene	0.78	0.0002	0.785	0.000205	0.450	0.000158	0.000231	0
Tributyltin [TBT]	0.13	0.024	0.131	0.0246	0.0749	0.0189	0.0278	0.0588
2,4,5 Trichlorophenol	136	64	137	65.6	78.4	50.5	74.2	157
Zinc	62	62	231	237	132	183	194	411

## HUMAN HEALTH

### CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Water and Fish Criterion (µg/L)</i>	<i>Fish Only Criterion (µg/L)</i>	<i>Incidental Fish Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	1.0	115	1150	121	112	164	349
				0.000012	0.000011	0.000016	0.000034
Aldrin	1.146E-05	1.147E-05	1.147E-04	0	2	4	8
Anthracene	1109	1317	13170	1382	1285	1889	3997
Antimony	6	1071	10710	1124	1045	1536	3250
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	610	567	833	1763
Benzidine	0.0015	0.107	1.07	0.112	0.104	0.153	0.324
Benzo(a)anthracene	0.024	0.025	0.25	0.0262	0.0244	0.0358	0.0758
Benzo(a)pyrene	0.0025	0.0025	0.025	0.00262	0.00244	0.00358	0.00758
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.288	0.268	0.393	0.833
Bis(2-chloroethyl)ether	0.60	42.83	428.3	44.9	41.8	61.4	129
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	7.92	7.37	10.8	22.9
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	289	268	394	834
Bromoform [Tribromomethane]	66.9	1060	10600	1112	1034	1520	3217
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A

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Carbon Tetrachloride	4.5	46	460	48.3	44.9	65.9	139
Chlordane	0.0025	0.0025	0.025	0.00262	0.00244	0.00358	0.00758
Chlorobenzene	100	2737	27370	2872	2671	3926	8306
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	192	179	262	555
Chloroform [Trichloromethane]	70	7697	76970	8077	7511	11041	23360
Chromium (hexavalent)	62	502	5020	527	490	720	1523
Chrysene	2.45	2.52	25.2	2.64	2.46	3.61	7.64
Cresols [Methylphenols]	1041	9301	93010	9760	9077	13342	28228
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.00210	0.00195	0.00286	0.00606
4,4'-DDE	0.00013	0.00013	0.0013	0.000136	0.000127	0.000186	0.000394
4,4'-DDT	0.0004	0.0004	0.004	0.000420	0.000390	0.000573	0.00121
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenprothrin]	262	473	4730	496	462	678	1435
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	4.45	4.14	6.08	12.8
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	624	581	853	1805
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	3462	3219	4732	10012
<i>p</i> -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	2.35	2.19	3.21	6.79
1,2-Dichloroethane	5	364	3640	382	355	522	1104
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	57833	53785	79063	167270
Dichloromethane [Methylene Chloride]	5	13333	133330	13991	13011	19126	40465
1,2-Dichloropropane	5	259	2590	272	253	371	786
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	125	116	170	361
Dicofol [Kelthane]	0.30	0.30	3	0.315	0.293	0.430	0.910
				0.000021	0.000019	0.000028	0.000060
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0	5	6	6
2,4-Dimethylphenol	444	8436	84360	8852	8233	12101	25603
Di- <i>n</i> -Butyl Phthalate	88.9	92.4	924	97.0	90.2	132	280
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	8.36E-08	7.78E-08	1.14E-07	2.41E-07
Endrin	0.02	0.02	0.2	0.0210	0.0195	0.0286	0.0606
Epichlorohydrin	53.5	2013	20130	2112	1964	2887	6109
Ethylbenzene	700	1867	18670	1959	1822	2678	5666
Ethylene Glycol	46744	1.68E+07	1.68E+08	17628868	16394848	24100425	50987976
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
					0.000097		
Heptachlor	8.0E-05	0.0001	0.001	0.000105	6	0.000143	0.000303
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.000304	0.000283	0.000416	0.000880
Hexachlorobenzene	0.00068	0.00068	0.0068	0.000714	0.000664	0.000975	0.00206
Hexachlorobutadiene	0.21	0.22	2.2	0.231	0.215	0.315	0.667
Hexachlorocyclohexane ( <i>alpha</i> )	0.0078	0.0084	0.084	0.00881	0.00820	0.0120	0.0254
Hexachlorocyclohexane ( <i>beta</i> )	0.15	0.26	2.6	0.273	0.254	0.372	0.789
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.2	0.341	3.41	0.358	0.333	0.489	1.03
Hexachlorocyclopentadiene	10.7	11.6	116	12.2	11.3	16.6	35.2
Hexachloroethane	1.84	2.33	23.3	2.44	2.27	3.34	7.07
Hexachlorophene	2.05	2.90	29	3.04	2.83	4.16	8.80
4,4'-Isopropylidenediphenol	1092	15982	159820	16771	15597	22926	48505
Lead	1.15	3.83	38.3	22.9	21.3	31.3	66.3
Mercury	0.0122	0.0122	0.122	0.0128	0.0119	0.0175	0.0370
Methoxychlor	2.92	3.0	30	3.15	2.93	4.30	9.10
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	1040943	968077	1423072	3010718
Methyl <i>tert</i> -butyl ether [MTBE]	15	10482	104820	10999	10229	15036	31812
Nickel	332	1140	11400	2962	2754	4048	8565
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	1965	1828	2686	5684
N-Nitrosodiethylamine	0.0037	2.1	21	2.20	2.05	3.01	6.37
N-Nitroso-di- <i>n</i> -Butylamine	0.119	4.2	42	4.41	4.10	6.02	12.7
Pentachlorobenzene	0.348	0.355	3.55	0.373	0.346	0.509	1.07
Pentachlorophenol	0.22	0.29	2.9	0.304	0.283	0.416	0.880
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.000672	0.000625	0.000918	0.00194
Pyridine	23	947	9470	994	924	1358	2874

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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	0.252	0.234	0.344	0.728
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	27.7	25.7	37.8	79.9
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	294	273	401	849
Thallium	0.12	0.23	2.3	0.241	0.224	0.329	0.698
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.0115	0.0107	0.0157	0.0333
2,4,5-TP [Silvex]	50	369	3690	387	360	529	1119
1,1,1-Trichloroethane	200	784354	7843540	823052	765438	1125194	2380513
1,1,2-Trichloroethane	5	166	1660	174	162	238	503
Trichloroethylene [Trichloroethene]	5	71.9	719	75.4	70.2	103	218
2,4,5-Trichlorophenol	1039	1867	18670	1959	1822	2678	5666
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	17.3	16.1	23.6	50.0

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

<b>Aquatic Life</b>	<b>70% of</b>	<b>85% of</b>
<b>Parameter</b>	<b>Daily Avg.</b>	<b>Daily Avg.</b>
	<b>(µg/L)</b>	<b>(µg/L)</b>
Aldrin	1.77	2.16
Aluminum	587	713
Arsenic	238	289
Cadmium	0.455	0.552
Carbaryl	1.18	1.44
Chlordane	0.00324	0.00394
Chlorpyrifos	0.0332	0.0404
Chromium (trivalent)	160	195
Chromium (hexavalent)	8.60	10.4
Copper	38.1	46.2
Cyanide (free)	8.68	10.5
4,4'-DDT	0.000811	0.000985
Demeton	0.0811	0.0985
Diazinon	0.100	0.122
Dicofol [Kelthane]	16.0	19.5
Dieldrin	0.00162	0.00197
Diuron	56.8	69.0
Endosulfan I ( <i>alpha</i> )	0.0454	0.0552
Endosulfan II ( <i>beta</i> )	0.0454	0.0552
Endosulfan sulfate	0.0454	0.0552
Endrin	0.00162	0.00197
Guthion [Azinphos Methyl]	0.00811	0.00985
Heptachlor	0.00324	0.00394
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.0649	0.0788
Lead	5.08	6.16
Malathion	0.00811	0.00985
Mercury	1.05	1.28
Methoxychlor	0.0243	0.0295
Mirex	0.000811	0.000985
Nickel	55.1	67.0
Nonylphenol	5.35	6.50
Parathion (ethyl)	0.0105	0.0128
Pentachlorophenol	6.32	7.68
Phenanthrene	17.7	21.6
Polychlorinated Biphenyls [PCBs]	0.0113	0.0138
Selenium	4.05	4.92
Silver	7.63	9.27
Toxaphene	0.000162	0.000197
Tributyltin [TBT]	0.0194	0.0236
2,4,5 Trichlorophenol	51.9	63.0
Zinc	136	165

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<b>Human Health</b>	<b>70% of Daily Avg.</b>	<b>85% of Daily Avg.</b>
<b>Parameter</b>	<b>(µg/L)</b>	<b>(µg/L)</b>
Acrylonitrile	115	140
	0.000011	0.000013
Aldrin	5	9
Anthracene	1322	1605
Antimony	1075	1305
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	583	708
Benzidine	0.107	0.130
Benzo(a)anthracene	0.0251	0.0304
Benzo(a)pyrene	0.00251	0.00304
Bis(chloromethyl)ether	0.275	0.334
Bis(2-chloroethyl)ether	43.0	52.2
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.58	9.20
Bromodichloromethane [Dichlorobromomethane]	276	335
Bromoform [Tribromomethane]	1064	1292
Cadmium	N/A	N/A
Carbon Tetrachloride	46.1	56.0
Chlordane	0.00251	0.00304
Chlorobenzene	2748	3337
Chlorodibromomethane [Dibromochloromethane]	183	223
Chloroform [Trichloromethane]	7729	9385
Chromium (hexavalent)	504	612
Chrysene	2.53	3.07
Cresols [Methylphenols]	9339	11341
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00200	0.00243
4,4'-DDE	0.000130	0.000158
4,4'-DDT	0.000401	0.000487
2,4'-D	N/A	N/A
Danitol [Fenprothrin]	474	576
1,2-Dibromoethane [Ethylene Dibromide]	4.25	5.17
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	597	725
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3312	4022
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	2.24	2.73
1,2-Dichloroethane	365	443
1,1-Dichloroethylene [1,1-Dichloroethene]	55344	67204
Dichloromethane [Methylene Chloride]	13388	16257
1,2-Dichloropropane	260	315
1,3-Dichloropropene [1,3-Dichloropropylene]	119	145
Dicofol [Kelthane]	0.301	0.365
	0.000020	0.000024
Dieldrin	0	3
2,4-Dimethylphenol	8471	10286
Di- <i>n</i> -Butyl Phthalate	92.7	112
Dioxins/Furans [TCDD Equivalents]	8.00E-08	9.71E-08
Endrin	0.0200	0.0243
Epichlorohydrin	2021	2454
Ethylbenzene	1874	2276
Ethylene Glycol	16870298	20485362
Fluoride	N/A	N/A
Heptachlor	0.000100	0.000121
Heptachlor Epoxide	0.000291	0.000353
Hexachlorobenzene	0.000682	0.000829
Hexachlorobutadiene	0.220	0.268

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Hexachlorocyclohexane ( <i>alpha</i> )	0.00843	0.0102
Hexachlorocyclohexane ( <i>beta</i> )	0.261	0.317
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.342	0.415
Hexachlorocyclopentadiene	11.6	14.1
Hexachloroethane	2.33	2.84
Hexachlorophene	2.91	3.53
4,4'-Isopropylidenediphenol	16048	19487
Lead	21.9	26.6
Mercury	0.0122	0.0148
Methoxychlor	3.01	3.65
Methyl Ethyl Ketone	996150	1209611
Methyl <i>tert</i> -butyl ether [MTBE]	10525	12781
Nickel	2834	3441
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	1880	2283
N-Nitrosodiethylamine	2.10	2.56
N-Nitroso-di- <i>n</i> -Butylamine	4.21	5.12
Pentachlorobenzene	0.356	0.432
Pentachlorophenol	0.291	0.353
Polychlorinated Biphenyls [PCBs]	0.000642	0.000780
Pyridine	950	1154
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.241	0.292
1,1,2,2-Tetrachloroethane	26.4	32.1
Tetrachloroethylene [Tetrachloroethylene]	281	341
Thallium	0.230	0.280
Toluene	N/A	N/A
Toxaphene	0.0110	0.0134
2,4,5-TP [Silvex]	370	449
1,1,1-Trichloroethane	787636	956415
1,1,2-Trichloroethane	166	202
Trichloroethylene [Trichloroethene]	72.2	87.6
2,4,5-Trichlorophenol	1874	2276
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	16.5	20.1

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER  
HUMAN HEALTH ONLY

# Timber Lane Utility District TPDES Permit No. WQ0011142002 Fact Sheet and Executive Director's Preliminary Decision

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

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:	Timber Lane Utility District
TPDES Permit No.:	WQ0011142002
Outfall No.:	001
Prepared by:	Abdur Rahim
Date:	April 4, 2025

## DISCHARGE INFORMATION

Receiving Waterbody:	Cypress Creek
Segment No.:	1009
TSS (mg/L):	13
Effluent Flow for Human Health (MGD):	2.62
Harmonic Mean Flow (cfs):	61.86
% Effluent for Human Health:	6.15
Human Health Criterion (select: PWS or FISH)	PWS

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

<i>Stream/River Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	73590.43	0.511		1.00	Assumed
Cadmium	6.60	-1.13	219403.73	0.260		1.00	Assumed
Chromium (total)	6.52	-0.93	304812.44	0.202		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	304812.44	0.202		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	156921.31	0.329		3.11	Assumed
Lead	6.45	-0.80	362114.00	0.175		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	113514.75	0.404		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	170859.19	0.310		1.00	Assumed
Zinc	6.10	-0.70	209044.94	0.269		1.00	Assumed

## HUMAN HEALTH

### CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Water and Fish Criterion (µg/L)</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	1.0	115	16.3	15.2	22.3	47.2
Aldrin	1.146E-05	1.147E-05	0.000186	0.000173	0.000254	0.000538
Anthracene	1109	1317	18032	16770	24651	52154
Antimony	6	1071	97.6	90.8	133	282
Arsenic	10	N/A	318	296	435	920
Barium	2000	N/A	32520	30244	44458	94058
Benzene	5	581	81.3	75.6	111	235
Benzidine	0.0015	0.107	0.0244	0.0227	0.0333	0.0705
Benzo(a)anthracene	0.024	0.025	0.390	0.363	0.533	1.12
Benzo(a)pyrene	0.0025	0.0025	0.0407	0.0379	0.0557	0.117
Bis(chloromethyl)ether	0.0024	0.2745	0.0390	0.0363	0.0533	0.112
Bis(2-chloroethyl)ether	0.60	42.83	9.76	9.08	13.3	28.2
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	97.6	90.8	133	282
Bromodichloromethane [Dichlorobromomethane]	10.2	275	166	154	226	478
Bromoform [Tribromomethane]	66.9	1060	1088	1012	1487	3147

Timber Lane Utility District TPDES Permit No. WQ0011142002  
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Cadmium	5	N/A	313	291	427	905
Carbon Tetrachloride	4.5	46	73.2	68.1	100	211
Chlordane	0.0025	0.0025	0.0407	0.0379	0.0557	0.117
Chlorobenzene	100	2737	1626	1512	2222	4702
Chlorodibromomethane [Dibromochloromethane]	7.5	183	122	113	166	351
Chloroform [Trichloromethane]	70	7697	1138	1058	1555	3290
Chromium (hexavalent)	62	502	1008	937	1377	2914
Chrysene	2.45	2.52	39.8	37.0	54.3	115
Cresols [Methylphenols]	1041	9301	16927	15742	23140	48957
Cyanide (free)	200	N/A	3252	3024	4445	9404
4,4'-DDD	0.002	0.002	0.0325	0.0302	0.0443	0.0939
4,4'-DDE	0.00013	0.00013	0.00211	0.00196	0.00288	0.00609
4,4'-DDT	0.0004	0.0004	0.00650	0.00605	0.00889	0.0188
2,4'-D	70	N/A	1138	1058	1555	3290
Danitol [Fenpropathrin]	262	473	4260	3962	5824	12321
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	2.76	2.57	3.77	7.99
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5236	4869	7157	15142
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	9756	9073	13337	28217
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	1220	1135	1668	3529
3,3'-Dichlorobenzidine	0.79	2.24	12.8	11.9	17.4	37.0
1,2-Dichloroethane	5	364	81.3	75.6	111	235
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	114	106	155	329
Dichloromethane [Methylene Chloride]	5	13333	81.3	75.6	111	235
1,2-Dichloropropane	5	259	81.3	75.6	111	235
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	45.5	42.3	62.1	131
Dicofol [Kelthane]	0.30	0.30	4.88	4.54	6.67	14.1
Dieldrin	2.0E-05	2.0E-05	0.000325	0.000302	0.000443	0.000939
2,4-Dimethylphenol	444	8436	7219	6714	9869	20880
Di- <i>n</i> -Butyl Phthalate	88.9	92.4	1446	1345	1977	4182
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	0.0000013	0.0000012	0.0000018	0.0000037
Endrin	0.02	0.02	0.325	0.302	0.443	0.939
Epichlorohydrin	53.5	2013	870	809	1189	2515
Ethylbenzene	700	1867	11382	10585	15559	32919
Ethyl Glycol	46744	1.68E+07	760060	706856	1039078	2198322
Fluoride	4000	N/A	65040	60487	88915	188114
Heptachlor	8.0E-05	0.0001	0.00130	0.00121	0.00177	0.00376
Heptachlor Epoxide	0.00029	0.00029	0.00472	0.00439	0.00645	0.0136
Hexachlorobenzene	0.00068	0.00068	0.0111	0.0103	0.0151	0.0320
Hexachlorobutadiene	0.21	0.22	3.41	3.17	4.65	9.85
Hexachlorocyclohexane ( <i>alpha</i> )	0.0078	0.0084	0.127	0.118	0.173	0.366
Hexachlorocyclohexane ( <i>beta</i> )	0.15	0.26	2.44	2.27	3.33	7.05
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	0.2	0.341	3.25	3.02	4.43	9.39
Hexachlorocyclopentadiene	10.7	11.6	174	162	238	503
Hexachloroethane	1.84	2.33	29.9	27.8	40.8	86.4
Hexachlorophene	2.05	2.90	33.3	31.0	45.5	96.4
4,4'-Isopropylidenediphenol [Bisphenol A]	1092	15982	17756	16513	24274	51355
Lead	1.15	3.83	107	99.5	146	309
Mercury	0.0122	0.0122	0.198	0.184	0.270	0.572
Methoxychlor	2.92	3.0	47.5	44.2	64.9	137
Methyl Ethyl Ketone	13865	9.92E+05	225446	209665	308207	652058
Methyl <i>tert</i> -butyl ether [MTBE]	15	10482	244	227	333	705
Nickel	332	1140	13365	12429	18270	38654
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	162601	151219	222291	470291
Nitrobenzene	45.7	1873	743	691	1015	2149
N-Nitrosodiethylamine	0.0037	2.1	0.0602	0.0560	0.0823	0.174
N-Nitroso-di- <i>n</i> -Butylamine	0.119	4.2	1.93	1.79	2.63	5.56
Pentachlorobenzene	0.348	0.355	5.66	5.26	7.73	16.3
Pentachlorophenol	0.22	0.29	3.58	3.33	4.89	10.3
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	0.0104	0.00967	0.0142	0.0300
Pyridine	23	947	374	348	511	1082
Selenium	50	N/A	813	756	1111	2351



Timber Lane Utility District TPDES Permit No. WQ0011142002  
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1,2,4,5-Tetrachlorobenzene	0.23	0.24	3.74	3.48	5.11	10.8
1,1,2,2-Tetrachloroethane	1.64	26.35	26.7	24.8	36.4	77.1
Tetrachloroethylene [Tetrachloroethylene]	5	280	81.3	75.6	111	235
Thallium	0.12	0.23	1.95	1.81	2.66	5.62
Toluene	1000	N/A	16260	15122	22229	47029
Toxaphene	0.011	0.011	0.179	0.166	0.244	0.516
2,4,5-TP [Silvex]	50	369	813	756	1111	2351
1,1,1-Trichloroethane	200	784354	3252	3024	4445	9404
1,1,2-Trichloroethane	5	166	81.3	75.6	111	235
Trichloroethylene [Trichloroethene]	5	71.9	81.3	75.6	111	235
2,4,5-Trichlorophenol	1039	1867	16894	15711	23095	48861
TTM [Sum of Total Trihalomethanes]	80	N/A	1301	1210	1778	3763
Vinyl Chloride	0.23	16.5	3.74	3.48	5.11	10.8

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

<b>Human Health</b>	<b>70% of Daily Avg.</b>	<b>85% of Daily Avg.</b>
<b>Parameter</b>	<b>(µg/L)</b>	<b>(µg/L)</b>
Acrylonitrile	15.6	18.9
Aldrin	0.000177	0.000215
Anthracene	17255	20953
Antimony	93.1	113
Arsenic	304	369
Barium	31120	37789
Benzene	77.7	94.3
Benidine	0.0233	0.0283
Benzo(a)anthracene	0.373	0.453
Benzo(a)pyrene	0.0389	0.0473
Bis(chloromethyl)ether	0.0373	0.0453
Bis(2-chloroethyl)ether	9.31	11.3
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	93.1	113
Bromodichloromethane [Dichlorobromomethane]	158	192
Bromoform [Tribromomethane]	1040	1263
Cadmium	298	362
Carbon Tetrachloride	70.0	85.0
Chlordane	0.0389	0.0473
Chlorobenzene	1555	1888
Chlorodibromomethane [Dibromochloromethane]	116	141
Chloroform [Trichloromethane]	1088	1321
Chromium (hexavalent)	963	1170
Chrysene	38.0	46.1
Cresols [Methylphenols]	16198	19669
Cyanide (free)	3111	3778
4,4'-DDD	0.0310	0.0376
4,4'-DDE	0.00201	0.00244
4,4'-DDT	0.00622	0.00755
2,4'-D	1088	1321
Danitrol [Fenprothrin]	4076	4950
1,2-Dibromoethane [Ethylene Dibromide]	2.63	3.20
m-Dichlorobenzene [1,3-Dichlorobenzene]	5009	6083
o-Dichlorobenzene [1,2-Dichlorobenzene]	9335	11336
p-Dichlorobenzene [1,4-Dichlorobenzene]	1167	1417
3,3'-Dichlorobenzidine	12.1	14.7
1,2-Dichloroethane	77.7	94.3
1,1-Dichloroethylene [1,1-Dichloroethene]	108	131
Dichloromethane [Methylene Chloride]	77.7	94.3
1,2-Dichloropropane	77.7	94.3
1,3-Dichloropropene [1,3-Dichloropropylene]	43.4	52.7
Dicofol [Kelthane]	4.66	5.66
Dieldrin	0.000310	0.000376

Timber Lane Utility District TPDES Permit No. WQ0011142002  
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2,4-Dimethylphenol	6908	8388
Di- <i>n</i> -Butyl Phthalate	1383	1680
Dioxins/Furans [TCDD Equivalents]	0.0000013	0.0000015
Endrin	0.310	0.376
Epichlorohydrin	832	1010
Ethylbenzene	10891	13225
Ethyl Glycol	727354	883216
Fluoride	62240	75577
Heptachlor	0.00123	0.00150
Heptachlor Epoxide	0.00451	0.00548
Hexachlorobenzene	0.0105	0.0128
Hexachlorobutadiene	3.25	3.95
Hexachlorocyclohexane ( <i>alpha</i> )	0.121	0.147
Hexachlorocyclohexane ( <i>beta</i> )	2.33	2.83
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	3.10	3.76
Hexachlorocyclopentadiene	166	202
Hexachloroethane	28.5	34.6
Hexachlorophene	31.8	38.6
4,4'-Isopropylidenediphenol [Bisphenol A]	16991	20632
Lead	102	124
Mercury	0.189	0.229
Methoxychlor	45.4	55.1
Methyl Ethyl Ketone	215744	261975
Methyl <i>tert</i> -butyl ether [MTBE]	233	283
Nickel	12789	15529
Nitrate-Nitrogen (as Total Nitrogen)	155603	188947
Nitrobenzene	710	862
N-Nitrosodiethylamine	0.0576	0.0699
N-Nitroso-di- <i>n</i> -Butylamine	1.84	2.23
Pentachlorobenzene	5.41	6.57
Pentachlorophenol	3.42	4.15
Polychlorinated Biphenyls [PCBs]	0.00994	0.0120
Pyridine	357	434
Selenium	777	944
1,2,4,5-Tetrachlorobenzene	3.57	4.34
1,1,2,2-Tetrachloroethane	25.4	30.9
Tetrachloroethylene [Tetrachloroethylene]	77.7	94.3
Thallium	1.86	2.26
Toluene	15560	18894
Toxaphene	0.170	0.207
2,4,5-TP [Silvex]	777	944
1,1,1-Trichloroethane	3111	3778
1,1,2-Trichloroethane	77.7	94.3
Trichloroethylene [Trichloroethene]	77.7	94.3
2,4,5-Trichlorophenol	16166	19630
TTHM [Sum of Total Trihalomethanes]	1244	1511
Vinyl Chloride	3.57	4.34



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
DOMESTIC WASTEWATER PERMIT APPLICATION  
CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: Timber Lane Utility District

PERMIT NUMBER: WQ0011142002

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

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Affected Landowners Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Buffer Zone Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Design Calculations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solids Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 6.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 7.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			



For TCEQ Use Only

Segment Number \_\_\_\_\_ County \_\_\_\_\_  
Expiration Date \_\_\_\_\_ Region \_\_\_\_\_  
Permit Number \_\_\_\_\_

## **ADMINISTRATIVE REPORT 1.0**



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 <input type="checkbox"/>	\$315.00 <input type="checkbox"/>
≥0.05 but <0.10 MGD	\$550.00 <input type="checkbox"/>	\$515.00 <input type="checkbox"/>
≥0.10 but <0.25 MGD	\$850.00 <input type="checkbox"/>	\$815.00 <input type="checkbox"/>
≥0.25 but <0.50 MGD	\$1,250.00 <input type="checkbox"/>	\$1,215.00 <input type="checkbox"/>
≥0.50 but <1.0 MGD	\$1,650.00 <input type="checkbox"/>	\$1,615.00 <input type="checkbox"/>
≥1.0 MGD	\$2,050.00 <input checked="" type="checkbox"/>	\$2,015.00 <input type="checkbox"/>

Minor Amendment (for any flow) \$150.00 ☐

**Payment Information:**

Mailed      Check/Money Order Number: 020070  
Check/Money Order Amount: \$2,050.00  
Name Printed on Check: Vogler & Spencer Engineering

EPAY      Voucher Number:

Copy of Payment Voucher enclosed?      Yes ☐

**Section 2. Type of Application (Instructions Page 29)**

- |  |   |
|--|---|
| <input type="checkbox"/> New TPDES   | <input type="checkbox"/> New TLAP                               |
| <input type="checkbox"/> Major Amendment <u>with</u> Renewal               | <input type="checkbox"/> Minor Amendment <u>with</u> Renewal    |
| <input checked="" type="checkbox"/> Major Amendment <u>without</u> Renewal | <input type="checkbox"/> Minor Amendment <u>without</u> Renewal |
| <input type="checkbox"/> Renewal without changes                           | <input type="checkbox"/> Minor Modification of permit           |

For amendments or modifications, describe the proposed changes: Removal of the effluent discharge limitations and monitoring requirements from the current permit for the following effluent characteristics; Total Copper, Total Dissolved Solids, and Bis(2-ethylhexyl)phthalate. Removal of the existing UV disinfection system and a proposed chlorination and dechlorination system for disinfection purposes.

**For existing permits:**

Permit Number: WQ0011142002

EPA I.D. (TPDES only): TX0046680

Expiration Date: [REDACTED]

### 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?

Timber Lane Utility District

*(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: 601442890

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: Daniel M. Meacham

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

Title: Board President

**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: [REDACTED]

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): [REDACTED]

First and Last Name: [REDACTED]

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



Title: [REDACTED]

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

### 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: 1

## 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): Ms.

First and Last Name: Lori G. Aylett

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

Title: Attorney

Organization Name: Smith, Murdaugh, Little & Bonham, L.L.P.

Mailing Address: 2727 Allen Parkway, Suite 1100

City, State, Zip Code: Houston, TX 77019

Phone No.: 713-652-6500 Ext.: [REDACTED] Fax No.: 713-652-6515

E-mail Address: Laylett@smithmur.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

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

First and Last Name: Jeffrey W. Vogler

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

Title: District Engineer

Organization Name: Vogler & Spencer Engineering

Mailing Address: 777 N. Eldridge Parkway, Suite 500

City, State, Zip Code: Houston, TX 77079

Phone No.: 713-782-0042 Ext.: [REDACTED] Fax No.: 713-782-5337

E-mail Address: Jvogler@vs-eng.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: Jeffrey W. Vogler

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

Title: District Engineer

Organization Name: Vogler & Spencer Engineering

Mailing Address: 777 N. Eldridge Parkway, Suite 500

City, State, Zip Code: Houston, TX 77079

Phone No.: 713-782-0042 Ext.: [REDACTED] Fax No.: 713-782-5337

E-mail Address: jvogler@vs-eng.com

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

First and Last Name: Lori G. Aylett

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

Title: Attorney

Organization Name: Smith, Murdaugh, Little & Bonham, L.L.P.

Mailing Address: 2727 Allen Parkway, Suite 1100

City, State, Zip Code: Houston, TX 77079

Phone No.: 713-652-6500 Ext.: [REDACTED] Fax No.: 713-652-6515

E-mail Address: Laylett@smithmur.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): Ms.

First and Last Name: Kayla Ray

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

Title: Bookkeeper

Organization Name: Myrtle Cruz, Inc.

Mailing Address: 3401 Louisiana St., Suite 400

City, State, Zip Code: Houston, TX 77002

Phone No.: 713-759-1368 Ext.: [REDACTED] Fax No.: [REDACTED]

E-mail Address: Kayla\_ray@mcruz.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: Josh Maas

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

Title: Operator

Organization Name: M. Marlon Ivy & Associates

Mailing Address: P.O. Box 9

City, State, Zip Code: Spring, TX 77383

Phone No.: 281-651-1618 Ext.: [REDACTED] Fax No.: 281-651-9933

E-mail Address: Joshm@mmia.co

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): Mr.

First and Last Name: Jeffrey W. Vogler

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

Title: District Engineer

Organization Name: Vogler & Spencer Engineering

Mailing Address: 777 N. Eldridge Parkway Suite 500

City, State, Zip Code: Houston, TX 77079

Phone No.: 713-782-0042 Ext.: [REDACTED] Fax No.: 713-782-5337

E-mail Address: jvogler@vs-eng.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: Jeffrey W. Vogler

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

Title: District Engineer

Organization Name: Vogler & Spencer Engineering

Phone No.: 713-782-0042 Ext.: [REDACTED]

E-mail: Jvogler@vs-eng.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: TCEO Regional Office - Region 12

Location within the building: 5425 Polk Ave., Suite H

Physical Address of Building: [REDACTED]

City: Houston

County: Harris

Contact Name: Ashley K. Wadick

Phone No.: 713-767-3500 Ext.: [REDACTED]

#### E. Bilingual Notice Requirements:

This information is **required** for **new, major amendment, and renewal applications**. It is not required for minor amendment or minor modification 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? Spanish

## 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. RN102844909

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):

Timber Lane Utility District Wastewater Treatment Facility

- C. Owner of treatment facility: Timber Lane Utility District

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: Timber Lane Utility District

Mailing Address: 2727 Allen Parkway, Suite 1100

City, State, Zip Code: Houston, TX 77019

Phone No.: 713-652-6500

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): [REDACTED]

First and Last Name: [REDACTED]

Mailing Address: [REDACTED]

City, State, Zip Code: [REDACTED]

Phone No.: [REDACTED] E-mail Address: [REDACTED]

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: [REDACTED]

## 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:

[REDACTED]

- 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:

[REDACTED]

City nearest the outfall(s): Spring

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

Outfall Latitude: 30.03971

Longitude: -95.388964

- 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: 2

- 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:

- 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: WQ0011142002

Applicant: Timber Lane Utility District

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.

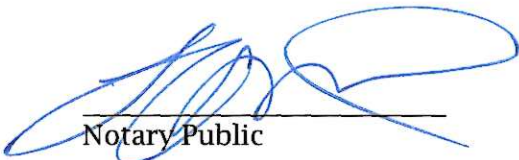
I further certify that I am authorized under 30 Texas Administrative Code § 305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Daniel M. Meacham

Signatory title: Board President

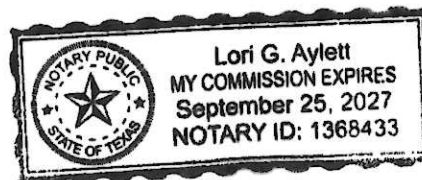
Signature:  Date: 10/12/23  
(Use blue ink)

Subscribed and Sworn to before me by the said Daniel M. Meacham  
on this 12 day of October, 2023.  
My commission expires on the 25 day of September, 2027.

  
Notary Public

[SEAL]

Harris  
County, Texas





## Section 15. Plain Language Summary (Instructions Page 40)

This information is required for new, major amendment, and renewal applications. It is not required for minor amendment or minor modification applications.

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.*

Timber Lane UD (CN601442890) operates Timber Lane Utility District Wastewater Treatment Facility (RN102844909). an activated sludge process plant. The facility is located 22802 ½ Grand Rapids Lane, in Spring, Harris County, Texas 77373.

Timber Lane Utility District is applying to amend TPDES Permit No. WQ001142002 (EPA I.D. No. TX 0046680) to remove the effluent limitation and monitoring requirements for the following effluent characteristics; Total Copper, Total Dissolved Solids, and Bis(2-ethylhexyl) phthalate. Timber Lane Utility District is also applying to remove the current UV disinfection system and replace it with a chlorination and dechlorination system for disinfection purposes.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and Escherichia coli. Domestic sewage is treated by a fine screen for preliminary treatment, complete mix, activated sludge biological nitrification for carbon and ammonia oxidation, secondary clarification for suspended solids removal, ultraviolet radiation for disinfection, aerobic digestion.

**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.*

Timber Lane UD (CN601442890) opera La Planta de Tratamiento de Aguas Residuales del Distrito Timber Lane UD (RN102844909), planta de lodos activados que remueve contaminantes de agua residual doméstica y produce un efluente tratado para el ambiente. La planta está localizada en: 22802 ½ Grand Rapids Lane, en la Ciudad de Spring, en el Condado de Harris, Texas 77373.

Timber Lane UD está aplicando para enmendar el TPDES Permiso No. WQ001142002 (EPA I.D. No. TX 0046680) para eliminar los requisitos de limitación y monitoreo de efluentes para las siguientes características de efluentes; Cobre total, sólidos disueltos totales y Bis(2-ethylhexyl) phthalate. El distrito de utilidades de Timber Lane también está solicitando eliminar el actual sistema de desinfección UV y reemplazarlo con un sistema de cloración y declaración con fines de desinfección.

Se espera que las descargas de la instalación contengan: 5-días Demanda biológica de Oxígeno (CBOD5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH<sub>3</sub>-N), nitrógeno nítrico (NO<sub>3</sub>-N), y Escherichia coli. Las aguas residuales domésticas se tratan mediante una pantalla fina para tratamiento preliminar, mixtura completa, nitrificación biológica de lodos activados para oxidación de carbono y amoniacal, clarificación secundaria para la eliminación de sólidos suspendidos, radiación ultravioleta para desinfección, digestión aeróbica.

## **ADMINISTRATIVE REPORT 1.1**



## 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: Harris County Appraisal District
- 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 \_\_\_\_ Major Amendment \_\_\_\_ Minor Amendment \_\_\_\_ New

County: \_\_\_\_\_ Segment Number: \_\_\_\_\_

Admin Complete Date: \_\_\_\_\_

Agency Receiving SPIF:

\_\_\_\_ Texas Historical Commission

\_\_\_\_ U.S. Fish and Wildlife

\_\_\_\_ Texas Parks and Wildlife Department

\_\_\_\_ U.S. Army Corps of Engineers

**This form applies to TPDES permit 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: Timber Lane Utility District

Permit No. WQ00 11142002

EPA ID No. TX 0046680

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

22802 ½ Grand Rapids Lane Spring, Texas 77373

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: Jeffrey W. Vogler

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

Title: District Engineer

Mailing Address: 777 N. Eldridge Suite 500

City, State, Zip Code: Houston, TX 77079

Phone No.: 713-782-0042 Ext.:

Fax No.:

E-mail Address: Jvogler@vs-eng.com

2. List the county in which the facility is located: Harris
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.

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):

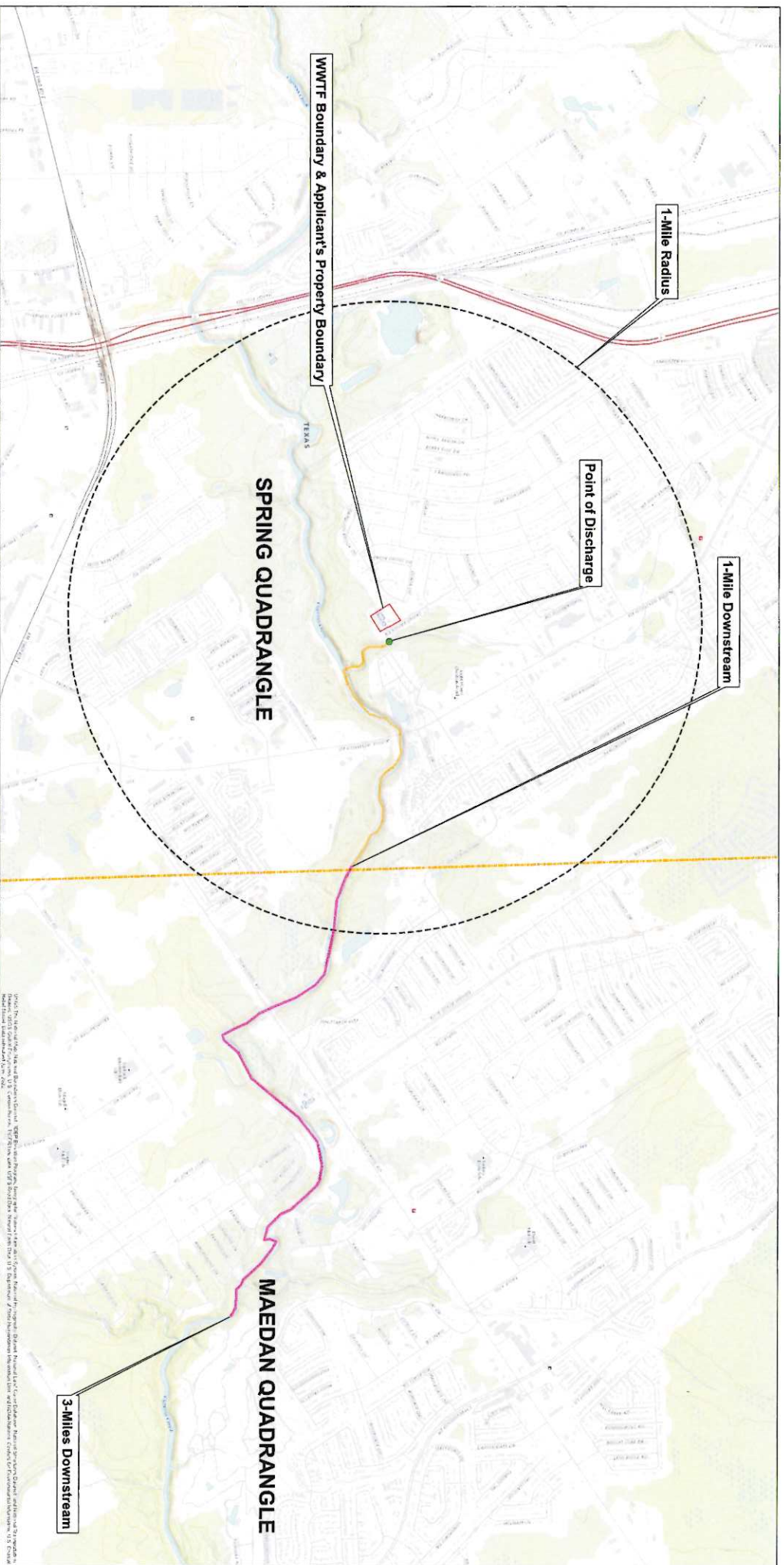
7. Describe existing disturbances, vegetation, and land use:

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:

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





**Legend**

WWTF Boundary



**Timber Lane UD USGS Topo**



## **TECHNICAL REPORT 1.0**



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): 2.25

2-Hr Peak Flow (MGD): 6.75

Estimated construction start date: Existing

Estimated waste disposal start date: Ongoing

**B. Interim II Phase**

Design Flow (MGD):

2-Hr Peak Flow (MGD):

Estimated construction start date:

Estimated waste disposal start date:

**C. Final Phase**

Design Flow (MGD): 2.62

2-Hr Peak Flow (MGD): 7.86

Estimated construction start date: 1/2/2025

Estimated waste disposal start date:

**D. Current operating phase: 2.25 (Existing)**

Provide the startup date of the facility: 12/2/2004

**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:

Fine screen for preliminary treatment, complete mix, activated sludge biological nitrification for carbon and ammonia oxidation, secondary clarification for suspended solids removal, ultraviolet radiation for disinfection, aerobic digestion. The final phase will replace ultraviolet radiation with a chlorination and dechlorination system for disinfection

Port or pipe diameter at the discharge point, in inches: 30

#### 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)
See Attachment 6		

#### C. Process flow diagrams

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

Attachment: 3



### 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: 4

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

Timber Lane Utility District

### 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.

Final design currently underway

## 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: 4/16/2009 - Existing

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.

### 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.

See Attachment 7

**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*.

**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 FL61 or TXRNE [REDACTED]

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<sub>5</sub> concentration of the sludge, and the design BOD<sub>5</sub> 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<sub>5</sub> concentration of the septic waste, and the design BOD<sub>5</sub> 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). **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 <sub>5</sub> , mg/l	2.49			Sampler	12/7/23 @5
Total Suspended Solids, mg/l	5.47			Sampler	12/7/23 @5
Ammonia Nitrogen, mg/l	0.107BB			Sampler	12/7/23 @5
Nitrate Nitrogen, mg/l	17.9			Sampler	12/7/23 @5
Total Kjeldahl Nitrogen, mg/l	<1.00U			Sampler	12/7/23 @5
Sulfate, mg/l	27.7			Sampler	12/7/23 @5
Chloride, mg/l	82.1			Sampler	12/7/23 @5
Total Phosphorus, mg/l	4.69			Sampler	12/7/23 @5
pH, standard units	7.36			Grab	12/7/23 @7:30
Dissolved Oxygen*, mg/l	7.27			Grab	12/7/23 @7:30
Chlorine Residual, mg/l	<0.25U			Grab	12/7/23 @7:30
<i>E.coli</i> (CFU/100ml) freshwater	6.3 MPN/100 mL				12/7/23 @7:30
Enterococci (CFU/100ml)					

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
saltwater					
Total Dissolved Solids, mg/l	472			Sampler	12/7/23 @5
Electrical Conductivity, $\mu$ mohs/cm, †	826			Sampler	12/7/23 @5
Oil & Grease, mg/l	<5.00U				12/7/23 @7:30
Alkalinity (CaCO <sub>3</sub> )*, mg/l	145			Sampler	12/7/23 @5

\*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 <sub>3</sub> ), mg/l					

## Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Joshua Maas

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

Facility Operator's License Number: WW0060132

## Section 9. Sewage Sludge Management and Disposal (Instructions



**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: See Attachment 9

TCEQ permit or registration number: See Attachment 9

County where disposal site is located: See Attachment 9

**C. Sludge transportation method**

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

Name of the hauler: K-3BMI

Hauler registration number: 22430

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: [REDACTED]

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

Phosphorus, mg/kg: [REDACTED]

Potassium, mg/kg: [REDACTED]

pH, standard units: [REDACTED]

Ammonia Nitrogen mg/kg: [REDACTED]

Arsenic: [REDACTED]

Cadmium: [REDACTED]

Chromium: [REDACTED]

Copper: [REDACTED]

Lead: [REDACTED]

Mercury: [REDACTED]

Molybdenum: [REDACTED]

Nickel: [REDACTED]

Selenium: [REDACTED]

Zinc: [REDACTED]

Total PCBs: [REDACTED]

Provide the following information:

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

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

[REDACTED]

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

[REDACTED]

### C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  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: [REDACTED]

## 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:

[REDACTED]

### 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:

[REDACTED]

## 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: AUNDRA NOE

Title: Project Manager

Signature: Aundra Noe

Date: 11/5/24

## **TECHNICAL REPORT 1.1**



## 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.

This amendment is not intended to propose any new phases in the permit, it is to remove the effluent limitations and monitoring requirements for the following effluent characteristics: Total Copper, Total Dissolved Solids, and Bis(2-ethylhexyl)phthalate. Removal of the existing UV disinfection system and a proposed chlorination and dechlorination system for disinfection purposes.

#### 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:** 10

**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): 2.25 MGD

Average Influent Organic Strength or BOD<sub>5</sub> Concentration in mg/l: 153.43

Average Influent Loading (lbs/day = total average flow X average BOD<sub>5</sub> conc. X 8.34): 1772.25

Provide the source of the average organic strength or BOD<sub>5</sub> concentration.

See Attachment 11

**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 <sub>5</sub> Concentration (mg/l)
Municipality		
Subdivision		
Trailer park - transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park,		



Source	Total Average Flow (MGD)	Influent BOD <sub>5</sub> Concentration (mg/l)
overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources		
AVERAGE BOD <sub>5</sub> from all sources		

### 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: March-November: 7, December-February: 10

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: March-November: 2, December-February: 3

Total Phosphorus, mg/l:                     

Dissolved Oxygen, mg/l: 6

Other: Total Copper: 0.017 mg/l, Total Dissolved Solids: 856 mg/l, Bis(2-

ethylhexyl)phthalate, Report

**B. Interim II Phase Design Effluent Quality**

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

Total Suspended Solids, mg/l: [REDACTED]

Ammonia Nitrogen, mg/l: [REDACTED]

Total Phosphorus, mg/l: [REDACTED]

Dissolved Oxygen, mg/l: [REDACTED]

Other: [REDACTED]

**C. Final Phase Design Effluent Quality**

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

Total Suspended Solids, mg/l: [REDACTED]

Ammonia Nitrogen, mg/l: [REDACTED]

Total Phosphorus, mg/l: [REDACTED]

Dissolved Oxygen, mg/l: [REDACTED]

Other: [REDACTED]

**D. Disinfection Method**

Identify the proposed method of disinfection.

☐ Chlorine: [REDACTED] mg/l after [REDACTED]  
minutes detention time at peak flow

Dechlorination process: [REDACTED]

☒ Ultraviolet Light: 16.45 seconds contact time at peak flow

☐ Other: [REDACTED]

**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: 12**

## 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.

A compensatory storage basin was built to make up for the 475 cubic yards of structures in the floodplain. All water heaters, furnaces, air conditioning units, electrical distribution panels and any other mechanical or electrical equipment must be elevated eighteen (18) inches above the base (100 year) flood elevation. See Attachment 13.

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

FEMA. See Attachment 13.

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:

## 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: 8

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.



## **WORKSHEET 2.0**

# 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).

<input type="text"/>
----------------------

### 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: Schultz Gully (HCFCD K116-00-00)

#### 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.

Cypress Creek, K115-00-00, K114-00-00, K184-00-00, Wild Cow Gulch

### 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.

**E. Normal dry weather characteristics**

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

Clear with constant flow

Date and time of observation: 11/22/2023 @ 8:00 a.m.

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



- |  |   |
|--|---|
| <input type="checkbox"/> Domestic water supply | <input type="checkbox"/> Industrial water supply                      |
| <input type="checkbox"/> Park activities       | <input checked="" type="checkbox"/> Other(s), specify <u>Drainage</u> |

**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

## **WORKSHEET 4.0**



## 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: 12/7/2023 @ 5

*Table 4.0(1) - Toxics Analysis*

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<50.0U			50
Aldrin	<0.001C+ U			0.01
Aluminum	20.0			2.5
Anthracene	<10.0U			10
Antimony	<5.00			5
Arsenic	1.69			0.5
Barium	138			3
Benzene	<10.0			10
Benzidine	<50.0U			50

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Benzo(a)anthracene	<5.00U			5
Benzo(a)pyrene	<5.00U			5
Bis(2-chloroethyl)ether	<10.0U			10
Bis(2-ethylhexyl)phthalate	<10.0U			10
Bromodichloromethane	<10.0U			10
Bromoform	<10.0B,U			10
Cadmium	<1.00U			1
Carbon Tetrachloride	<2.00U			2
Carbaryl	<1.22			5
Chlordane*	0.01103			0.2
Chlorobenzene	<10.0U			10
Chlorodibromomethane	<10.0B,U			10
Chloroform	<10.0B,U			10
Chlorpyrifos	<0.0266U			0.05
Chromium (Total)	<3.00U			3
Chromium (Tri) (*1)	<0.00600			N/A
Chromium (Hex)	<3.00U			3
Copper	4.64			2
Chrysene	<5.00U			5
p-Chloro-m-Cresol	<10.0U			10
4,6-Dinitro-o-Cresol	<50.0U			50

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
p-Cresol	<10.0			10
Cyanide (*2)	<10.0HR, U			10
4,4'- DDD	<0.00200 C+,U			0.1
4,4'- DDE	<0.00100 C+,U			0.1
4,4'- DDT	<0.00900 C+,U			0.02
2,4-D	<0.236U			0.7
Demeton (O and S)	<0.0134			0.20
Diazinon	<0.0134U			0.5/0.1
1,2-Dibromoethane	<10.0U			10
m-Dichlorobenzene	<10.0U			10
o-Dichlorobenzene	<10.0U			10
p-Dichlorobenzene	<10.0U			10
3,3'-Dichlorobenzidine	<5.00U			5
1,2-Dichloroethane	<10.0U			10
1,1-Dichloroethylene	<10.0U			10
Dichloromethane	<20.0U			20
1,2-Dichloropropane	<10.0U			10
1,3-Dichloropropene	<10.0			10

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Dicofol	<0.120U			1
Dieldrin	<0.00100 U,C+			0.02
2,4-Dimethylphenol	<10.0U			10
Di-n-Butyl Phthalate	<10.0U			10
Diuron	<0.0464			0.09
Endosulfan I (alpha)	<0.00400 U,C+			0.01
Endosulfan II (beta)	<0.00100 C+,U			0.02
Endosulfan Sulfate	<0.00100 C+,U			0.1
Endrin	<0.00200 U			0.02
Ethylbenzene	<10.0U			10
Fluoride	0.429			500
Guthion	<0.0345U			0.1
Heptachlor	0.00734J			0.01
Heptachlor Epoxide	<0.00400 C+,U			0.01
Hexachlorobenzene	<5.00U			5
Hexachlorobutadiene	<10.0U			10



<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Hexachlorocyclohexane (alpha)	<0.00300 U,B			0.05
Hexachlorocyclohexane (beta)	0.0173V,J			0.05
gamma-Hexachlorocyclohexane (Lindane)	0.110J			0.05
Hexachlorocyclopentadiene	<10.0U			10
Hexachloroethane	<20.0			20
Hexachlorophene	<10.0U			10
Lead	<0.500U			0.5
Malathion	<0.0138U			0.1
Mercury	<0.00500 U			0.005
Methoxychlor	<0.0100U			2
Methyl Ethyl Ketone	<50.0U			50
Mirex	<0.0100U			0.02
Nickel	<2.00			2
Nitrate-Nitrogen	17900			100
Nitrobenzene	<10.0U			10
N-Nitrosodiethylamine	<20.0U			20
N-Nitroso-di-n-Butylamine	<20.0U			20
Nonylphenol	<333U			333
Parathion (ethyl)	<0.0214U			0.1

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Pentachlorobenzene	<20.0U			20
Pentachlorophenol	<5.00U			5
Phenanthrene	<10.0U			10
Polychlorinated Biphenyls (PCB's) (*3)	<0.03			0.2
Pyridine	<20.0U			20
Selenium	<5.00			5
Silver	<0.500U			0.5
1,2,4,5-Tetrachlorobenzene	<10.0U			20
1,1,2,2-Tetrachloroethane	<10.0U			10
Tetrachloroethylene	<10.0U			10
Thallium	<0.500U			0.5
Toluene	<10.0U			10
Toxaphene	<0.100C+ ,U			0.3
2,4,5-TP (Silvex)	<0.238U			0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane	<10.0U			10
1,1,2-Trichloroethane	<10.0U			10
Trichloroethylene	<10.0U			10
2,4,5-Trichlorophenol	<10.0U			50

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
TTHM (Total Trihalomethanes)	<10.0B,U			10
Vinyl Chloride	<10.0U			10
Zinc	40.5			5

(\*1) Determined by subtracting hexavalent Cr from total Cr.

(\*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(\*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.



## Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab ☒ Composite ☒

Date and time sample(s) collected: 12/7/2023 @ 5

**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	<5.00			5
Arsenic	1.69			0.5
Beryllium	<0.500U			0.5
Cadmium	<1.00			1
Chromium (Total)	<3.00U			3
Chromium (Hex)	<3.00U			3
Chromium (Tri) (*1)	<0.0060 0			N/A
Copper	4.64			2
Lead	<0.500U			0.5
Mercury	<0.0050 0U			0.005
Nickel	<2.00U			2
Selenium	<5.00U			5
Silver	<0.500U			0.5
Thallium	<0.500U			0.5
Zinc	40.5			5
Cyanide (*2)	<10.0HR, U			10
Phenols, Total	<10.0U			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**

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Acrolein	<50.0U			50
Acrylonitrile	<50.0U			50
Benzene	<10.0U			10
Bromoform	<10.0B,U			10
Carbon Tetrachloride	<2.00U			2
Chlorobenzene	<10.0U			10
Chlorodibromomethane	<10.0B,U			10
Chloroethane	<50.0U			50
2-Chloroethylvinyl Ether	<10.0U			10
Chloroform	<10.0B,U			10
Dichlorobromomethane [Bromodichloromethane]	<10.0U			10
1,1-Dichloroethane	<10.0U			10
1,2-Dichloroethane	<10.0U			10
1,1-Dichloroethylene	<10.0U			10
1,2-Dichloropropane	<10.0U			10
1,3-Dichloropropylene [1,3-Dichloropropene]	<10.0U			10
1,2-Trans-Dichloroethylene	<10.0U			10
Ethylbenzene	<10.0U			10
Methyl Bromide	<50.0U			50
Methyl Chloride	<50.0U			50
Methylene Chloride	<20.0U			20
1,1,2,2-Tetrachloroethane	<10.0U			10
Tetrachloroethylene	<10.0U			10

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Toluene	<10.0U			10
1,1,1-Trichloroethane	<10.0U			10
1,1,2-Trichloroethane	<10.0U			10
Trichloroethylene	<10.0U			10
Vinyl Chloride	<10.0U			10

**Table 4.0(2)C - Acid Compounds**

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
2-Chlorophenol	<10.0U			10
2,4-Dichlorophenol	<10.0U			10
2,4-Dimethylphenol	<10.0U			10
4,6-Dinitro-o-Cresol	<50.0U			50
2,4-Dinitrophenol	<50.0U			50
2-Nitrophenol	<20.0U			20
4-Nitrophenol	<50.0U			50
P-Chloro-m-Cresol	<10.0U			10
Pentalchlorophenol	<5.00U			5
Phenol	<10.0U			10
2,4,6-Trichlorophenol	<10.0U			10



**Table 4.0(2)D - Base/Neutral Compounds**

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Acenaphthene	<10.0U			10
Acenaphthylene	<10.0U			10
Anthracene	<10.0U			10
Benzidine	<50.0U			50
Benzo(a)Anthracene	<5.00U			5
Benzo(a)Pyrene	<5.00U			5
3,4-Benzofluoranthene	<5.00U			10
Benzo(ghi)Perylene	<20.0U			20
Benzo(k)Fluoranthene	<5.00U			5
Bis(2-Chloroethoxy)Methane	<10.0U			10
Bis(2-Chloroethyl)Ether	<10.0U			10
Bis(2-Chloroisopropyl)Ether	<10.0U			10
Bis(2-Ethylhexyl)Phthalate	<10.0U			10
4-Bromophenyl Phenyl Ether	<10.0U			10
Butyl benzyl Phthalate	<10.0U			10
2-Chloronaphthalene	<10.0U			10
4-Chlorophenyl phenyl ether	<10.0U			10
Chrysene	<5.00U			5
Dibenzo(a,h)Anthracene	<5.00U			5
1,2-(o)Dichlorobenzene	<10.0U			10
1,3-(m)Dichlorobenzene	<10.0U			10
1,4-(p)Dichlorobenzene	<10.0U			10
3,3-Dichlorobenzidine	<5.00U			5
Diethyl Phthalate	<10.0B,U			10
Dimethyl Phthalate	<10.0U			10

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Di-n-Butyl Phthalate	<10.0U			10
2,4-Dinitrotoluene	<10.0U			10
2,6-Dinitrotoluene	<10.0U			10
Di-n-Octyl Phthalate	<10.0U			10
1,2-Diphenylhydrazine (as Azo- benzene)	<20.0U			20
Fluoranthene	<10.0U			10
Fluorene	<10.0U			10
Hexachlorobenzene	<5.00U			5
Hexachlorobutadiene	<10.0U			10
Hexachlorocyclo-pentadiene	<10.0U			10
Hexachloroethane	<20.0U			20
Indeno(1,2,3-cd)pyrene	<5.00U			5
Isophorone	<10.0U			10
Naphthalene	<10.0U			10
Nitrobenzene	<10.0U			10
N-Nitrosodimethylamine	<50.0U			50
N-Nitrosodi-n-Propylamine	<20.0U			20
N-Nitrosodiphenylamine	<20.0U			20
Phenanthrene	<10.0U			10
Pyrene	<10.0U			10
1,2,4-Trichlorobenzene	<10.0U			10

**Table 4.0(2)E – Pesticides**

<b>Pollutant</b>	<b>AVG Effluent Conc. (µg/l)</b>	<b>MAX Effluent Conc. (µg/l)</b>	<b>Number of Samples</b>	<b>MAL (µg/l)</b>
Aldrin	<0.0010 0C+,U			0.01
alpha-BHC (Hexachlorocyclohexane)	<0.0030 0U,B			0.05
beta-BHC (Hexachlorocyclohexane)	0.0173V, J			0.05
gamma-BHC (Hexachlorocyclohexane)	0.0110J			0.05
delta-BHC (Hexachlorocyclohexane)	<0.0030 0U,C+			0.05
Chlordane	0.0110J			0.2
4,4-DDT	<0.0090 0C+,U			0.02
4,4-DDE	<0.0010 0C+,U			0.1
4,4,-DDD	<0.0020 0C+,U			0.1
Dieldrin	<0.0010 0U,C+			0.02
Endosulfan I (alpha)	<0.0040 0U,C+			0.01
Endosulfan II (beta)	<0.0010 0C+,U			0.02
Endosulfan Sulfate	<0.0100 C+,U			0.1



Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Endrin	<0.0020 0U			0.02
Endrin Aldehyde	<0.0020 0U			0.1
Heptachlor	0.00734J			0.01
Heptachlor Epoxide	<0.0040 0C+,U			0.01
PCB-1242	<0.03			0.2
PCB-1254	<0.03			0.2
PCB-1221	<0.03			0.2
PCB-1232	<0.03			0.2
PCB-1248	<0.03			0.2
PCB-1260	<0.03			0.2
PCB-1016	<0.03			0.2
Toxaphene	<0.100C +,U			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

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

## **WORKSHEET 6.0**

## 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: 0

Significant IUs - non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

##### 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 ☒

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:

SIC Code:

Telephone number:  Fax number:

Contact name:

Address:

City, State, and Zip Code:

#### **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).

#### **C. Product and service information**

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

**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:

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.

--

**ATTACHMENT 1**  
**TCEQ CORE DATA FORM**





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

<b>1. Reason for Submission</b> (If other is checked please describe in space provided.) <input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.) <input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form) <input checked="" type="checkbox"/> Other <b>Major Amendment</b>		
<b>2. Customer Reference Number (if issued)</b>  CN 601442890	Follow this link to search for CN or RN numbers in Central Registry** <a href="#">Central Registry**</a>	<b>3. Regulated Entity Reference Number (if issued)</b>  RN 102844909

## SECTION II: Customer Information

<b>4. General Customer Information</b>		<b>5. Effective Date for Customer Information Updates</b> (mm/dd/yyyy)	
<input type="checkbox"/> New Customer <input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts) <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership			
<b>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).</b>			
<b>6. Customer Legal Name</b> (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
Timber Lane UD			
<b>7. TX SOS/CPA Filing Number</b>	<b>8. TX State Tax ID</b> (11 digits)	<b>9. Federal Tax ID</b> (9 digits)	<b>10. DUNS Number</b> (if applicable)
<b>11. Type of Customer:</b> <input type="checkbox"/> Corporation <input type="checkbox"/> Individual Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other <input type="checkbox"/> Sole Proprietorship <input checked="" type="checkbox"/> Other: Municipal Utility District			
<b>12. Number of Employees</b> <input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<b>13. Independently Owned and Operated?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>14. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:			
<b>15. Mailing Address:</b>	2727 Allen Parkway, Suite 1100		
	City	Houston	State TX ZIP 77019 ZIP + 4
<b>16. Country Mailing Information</b> (if outside USA)		<b>17. E-Mail Address</b> (if applicable) Laylett@smithmur.com	
<b>18. Telephone Number</b> ( 713 ) 652-6500	<b>19. Extension or Code</b>		<b>20. Fax Number</b> (if applicable) ( 713 ) 652-6515

## SECTION III: Regulated Entity Information

<b>21. General Regulated Entity Information</b> (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application) <input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information	
<b>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).</b>	
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.) Timber Lane Utility District Wastewater Treatment Facility	



23. Street Address of the Regulated Entity: (No PO Boxes)	22801 Grand Rapids LN							
	City	Spring	State	TX	ZIP	77373	ZIP + 4	
24. County	Harris							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:									
26. Nearest City	Spring				State	TX		Nearest ZIP Code	77373
27. Latitude (N) In Decimal:	30.03971			28. Longitude (W) In Decimal:	-95.388964				
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds				
30	2	22.956	95	23	20.2704				
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)				
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)									
34. Mailing Address:	Smith, Murdaugh, Little & Bonham, L.L.P.								
	2727 Allen Parkway, Suite 1100								
	City	Houston	State	TX	ZIP	77019	ZIP + 4		
35. E-Mail Address:	Laylett@smithmur.com								
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)						
( 713 ) 652-6500			( 713 ) 652-6515						

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.


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

#### SECTION IV: Preparer Information

40. Name:	Mehdi Kettani	41. Title:	E.I.T.
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
( 713 ) 782-0042		( ) -	Mkettani@vs-eng.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:	Vogler & Spencer Engineering	Job Title:	Project Engineer
Name (In Print):	Mehdi Kettani	Phone:	(713) 782-0042
Signature:		Date:	9/21/2023

**ATTACHMENT 2**  
**DISCHARGE APPROVAL**



May 17, 2023

Mr. Mehdi Kettani, P.E.  
Vogler & Spencer Engineering, Inc.  
777 North Eldridge Parkway, Suite 500  
Houston, Texas 77079

**SENT VIA ELECTRONIC MAIL: NO HARD COPY TO FOLLOW**

RE: Wastewater Discharge from Timber Lane Utility District  
Discharge of Treated Sewage Effluent: 2.25 MGD  
TCEQ Discharge Permit: WQ0011142002  
HCFCD Unit K116-00-00

Dear Mr. Kettani:

The Harris County Flood Control District (HCFCD) has received your application for discharge into a Flood Control or County facility. The flow path of the effluent is to HCFCD owned Rights-of-way, channel K116-00-00. HCFCD will accept discharge into K116-00-00 from the location indicated. Harris County's waterways are impaired for bacteria (E. coli); therefore, HCFCD requests discharges from Timber Lane Utility District facility be monitored for bacteria (E. coli) at effluent limits of 63 MPN mg/l with the other required parameters. Your application is being processed and we have no objection at this time to the discharge of treated wastewater flows into or toward HCFCD K116-00-00.

Please note if this will involve new construction, that construction plans designed in accordance with Harris County Flood Control District's criteria and other adopted policies must be submitted for review to the Watershed Management Department.

If you have any questions or need additional information, please feel free to call me at 346-286-4181.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Danielle Woods', written over a light blue horizontal line.

Danielle Woods,  
Environmental Quality Project Manager

DW:rop

Attachment: Copy of Application

cc: David Saha, HCFCD  
Jeremy Phillips, HCFCD

S:\Planningdiv\Environmental Services\Environmental Quality\Programs\Water Quality\WWTP\_Response Letters\WWTP 2023\23-L5-17voglerspencer WWTP Discharge Approval Letter Timber Lane Utility District K116-00-00 Docx



777 North Eldridge Parkway, Suite 500  
Houston, TX 77079



713/782-0042 Fax 713/782-5337



vs-eng.com



October 20, 2022

Danielle Woods  
Harris County Flood Control District  
9900 Northwest Freeway  
Houston, TX 77092

Re: Discharge Authorization for Timber Lane Utility District Wastewater Treatment Facility  
VSE. Project No.: 05200-500-0-PMT (p)  
HCFCD Project ID: K116-00-00

Dear Ms. Woods:

Vogler & Spencer Engineering, Inc. (VSE) is currently preparing an application to renew the TPDES permit for the Timber Lane Utility District Wastewater Treatment Facility. The plant discharges treated sewage effluent into Harris County Flood Control Ditch K116-00-00. TCEQ requires proof of authorization for this discharge.

The following information is attached:

1. U.S.G.S map showing the effluent discharge route for one mile downstream from the point of discharge
2. Most recent monitoring data

I would appreciate your furnishing of written proof of authorization for this discharge as soon as possible. Should you have any questions, please call me at 713-782-0042. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink that reads 'Mehdi Kettani'.

Mehdi Kettani  
Project Engineer  
Vogler & Spencer Engineering, Inc.  
Texas Professional Engineering Firm Registration No. F148

MK

Encl.: Application for Discharge to County or District Facility  
U.S.G.S Map of Effluent Discharge Route  
Monitoring data



**HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT**  
**APPLICATION FOR DISCHARGE TO COUNTY OR DISTRICT FACILITY**

**1. APPLICANT INFORMATION** (Please print or type)

Owner/Applicant

Name Timber Lane Utility District

Applicant Mailing Address 2727 Allen Parkway, Suite 1100 City Houston State TX Zip 77079

Home Phone \_\_\_\_\_ Daytime Phone 713-652-6500 Fax \_\_\_\_\_ Pager \_\_\_\_\_

Agent/Consultant Name Vogler & Spencer Engineering Phone 713-782-0042

Agent's Mailing Address 777 N Eldridge Parkway, Suite 500 State TX Zip 77079

**2. LOCATION OF PROPERTY**

Subdivision \_\_\_\_\_ Section \_\_\_\_\_ Block \_\_\_\_\_ Lot \_\_\_\_\_ Reserve \_\_\_\_\_

Street Address 22802 1/2 Grand Rapids Lane City Spring State TX Zip 77373

Survey Name \_\_\_\_\_ Abstract Number \_\_\_\_\_ Acreage \_\_\_\_\_

Property Tax Account Number 1183350010001

**3. DISCHARGE LOCATION**

Attach the following documents in support of the application

A. Detailed Map Showing Discharge Point ☒ Key Map Page [ ] attached GPS Latitude 30 ° 2 '22.956"

B. Detailed Map Showing downstream Path for one mile after discharge point [ ☒ ] Longitude 95 ° 23 '20.270"

**4. DISCHARGE PARAMETERS**

**A. Type**

[ ☒ ] Treated Sewage Effluent

[ ] Treated Stormwater

[ ] Potable Water

[ ] \_\_\_\_\_

B. Quantity: 2.25 Millions Gallons Per Day ( [ ] Initial [ ☒ ] Intermediate [ ] Final ) Check One

**C. Quality (Either Current or Proposed)**

BOD: 7 (Mar-Nov) 10 (Dec-Feb) mg/l

TSS: 15 mg/l

NH<sub>3</sub>-N: 2 (Mar-Nov) 3 (Dec-Feb) mg/l

Disinfection Type = Ultra Violet

O<sub>2</sub>: 6 (Mar-Nov) 5 (Dec-Feb) CFU

Source [ ☒ ] Permit Application

Bacteria (Ecoli or Enterococcus) = 63

[ ] Other: \_\_\_\_\_  
Specify

**5. OTHER PERMITS/APPLICATION:**

[ ☒ ] TCEQ Discharge Permit # WQ0011142002

[ ] New [ ☒ ] Renewal [ ] Amendment

[ ] Harris County Notice # \_\_\_\_\_

[ ] Harris County Development Permit # \_\_\_\_\_

[ ] Other: \_\_\_\_\_

I, Mehdi Kettani, the undersigned have carefully reviewed this application and my answers to all questions. To the best of my knowledge, the answers are all true and correct.

SIGNATURE of Applicant/Agent/Consultant or Attorney

*Mehdi Kettani*

Date 10/18/22

Receiving		Date Application Received
Applicant Number	Planchecker	
Request No.	Approved By	
Project ID No.	Date	
Clerk & Date	Vio No.	

NO FACSIMILE'S PLEASE

9900 Northwest Frwy Houston TX 77092-8615  
(713) 956-3000

HCED FPM 99-0000  
rev 2-3-03







September 30, 2022

## Laboratory Report

Clayton Galloway  
M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

Report ID: 20220930153445AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in blue ink, appearing to read "Aundra Noe", is positioned above the printed name.

Aundra Noe For Deena Higginbotham  
Director of Client Services



130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
www. NWDLS.com  
TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

### Sample Results

Client Sample ID: 18 Mohm DI

Sample Matrix: Waste Water

Lab Sample ID: 22I2195-01

Date Collected: 09/12/2022 6:30

Timberlane - Outfall 001 3 Part Grab Comp 1

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### Metals, Total

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	8F11919	09/15/2022 11:04	FAL
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\* A = Accredited, N = Not Accredited or Accreditation not available



130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
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TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab  
Lab Sample ID: 22I2195-02  
Timberlane - Outfall 001 3 Part Grab Comp 1

[none]

Sample Matrix: Waste Water  
Date Collected: 09/12/2022 6:30  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BFI1919	09/15/2022 11:09	FAL
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TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: 18 Mohm DI

Sample Matrix: Waste Water

Lab Sample ID: 22I2196-01

Date Collected: 09/12/2022 11:00

Timberlane - Outfall 001 3 Part Grab Comp 2

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>Metals, Total</b>										
EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BFI1919	09/15/2022 10:38	FAL

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130 S. Trade Center Parkway, Conroe TX 77385  
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Email: lab@nwdls.com  
www: NWDLS.com  
TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab  
Lab Sample ID: 22I2196-02  
Timberlane - Outfall 001 3 Part Grab Comp 2

[none]

Sample Matrix: Waste Water  
Date Collected: 09/12/2022 11:00  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BF11919	09/15/2022 10:43	FAL
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\* A = Accredited, N = Not Accredited or Accreditation not available



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001  
Lab Sample ID: 22I2331-01

Sample Matrix: Waste Water  
Date Collected: 09/13/2022 7:00  
Collected by: Heath Reinke

Timberlane - Permit Renewal

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**General Chemistry**

SM 4500-CN <sup>-</sup> G	Amenable Cyanide	A	<10.0U	ug/L	1	5.00	10.0	BFI2488	09/19/2022 17:58	CTC
SM 4500-CN <sup>-</sup> C	Total Cyanide	A	<10.0U	ug/L	1	5.00	10.0	BFI2488	09/19/2022 17:58	CTC
EPA 1664A	n-Hexane Extractable Material (O&G)	A	<5.00U	mg/L	1	5.00	5.00	BFI1747	09/14/2022 09:00	RAV

**Microbiology**

SM 9223 B (Colilert Quanti-Tray)	Escherichia coli (E. coli)	A	14.8	MPN/100 mL	1	1.00	1.00	BFI1697	09/14/2022 15:20	LLA
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**Field**

Hach 10360	DO Field	N	8.63	mg/L	1	1.00	1.00	BFI1836	09/13/2022 07:00	HWR
Calc	Flow Field	N	1.37	MGD	1	0.00	0.00	BFI1836	09/13/2022 07:00	HWR
SM 4500-H+ B	pH	A	8.38	pH Units @ 25 °C	1	1.00	1.00	BFI1836	09/13/2022 07:00	HWR
SM 4500-Cl G	Total Residual Chlorine	A	0.73	mg/L	1	0.25	0.25	BFI1836	09/13/2022 07:00	HWR

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

### Sample Results (Continued)

Client Sample ID: Outfall 001 Sampler  
Lab Sample ID: 22I2331-02  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 09/13/2022 6:00  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>Metals, Total</b>										
EPA 200.8	Aluminum	A	15.0	ug/L	1	0.167	2.50	BFI2134	09/28/2022 11:30	TBB
EPA 200.8	Antimony	A	<5.00U	ug/L	1	0.0589	5.00	BFI2134	09/28/2022 09:40	TBB
EPA 200.8	Arsenic	A	1.24	ug/L	1	0.0468	0.500	BFI2134	09/29/2022 13:26	TBB
EPA 200.8	Barium	A	147	ug/L	1	0.0200	3.00	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Beryllium	A	<0.500U	ug/L	1	0.0137	0.500	BFI2134	09/28/2022 11:30	TBB
EPA 200.8	Cadmium	A	<1.00U	ug/L	1	0.00798	1.00	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Chromium	A	<3.00U	ug/L	1	0.0839	3.00	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Copper	A	3.45	ug/L	1	0.182	2.00	BFI2134	09/27/2022 10:38	TBB
Calc	Chromium (III)		<0.00600	mg/L	1	0.00158	0.00600	[CALC]	09/27/2022 10:38	SAB
EPA 200.8	Lead	A	<0.500U	ug/L	1	0.0120	0.500	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Nickel	A	<2.00U	ug/L	1	0.0398	2.00	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Selenium	A	<5.00U	ug/L	1	0.354	5.00	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Silver	A	<0.500U	ug/L	1	0.00467	0.500	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Thallium	A	<0.500U	ug/L	1	0.0617	0.500	BFI2134	09/27/2022 10:38	TBB
EPA 200.8	Zinc	A	39.4	ug/L	1	0.207	5.00	BFI2134	09/29/2022 12:05	TBB
<b>Metals, Dissolved</b>										
SM 3500-Cr B	Chromium (VI)	A	<3.00U	ug/L	1	1.50	3.00	BFI2832	09/21/2022 14:06	SAB
<b>General Chemistry</b>										
SM 2320 B	Alkalinity as CaCO <sub>3</sub>	A	136	mg/L	1	10.0	10.0	BFI1988	09/15/2022 12:10	AKA
SM 5210 B	Carbonaceous BOD (CBOD)	A	4.02FF	mg/L	13514	2.03	2.03	BFI1917	09/19/2022 13:53	EGL
SM 2510 B	Conductivity	A	791	umhos/cm @ 25 °C	1	2.00	2.00	BFI1988	09/15/2022 12:10	AKA
EPA 300.0	Fluoride	A	0.436	mg/L	1	0.0105	0.250	BFI1568	09/13/2022 21:09	ORP
EPA 350.1	Ammonia as N	A	0.135	mg/L	1	0.0200	0.0500	BFI1797	09/14/2022 16:44	PNU
EPA 300.0	Nitrite as N	A	255	ug/L	1	5.10	50.0	BFI1568	09/13/2022 21:09	ORP
EPA 300.0	Sulfate	A	29.3	mg/L	1	0.0341	1.00	BFI1568	09/13/2022 21:09	ORP
SM 2540 C	Residue-filterable (TDS)	A	492	mg/L	1	10.0	10.0	BFI1782	09/16/2022 10:23	BP
EPA 365.1	Total Phosphorus	A	3.93	mg/L	1	0.117	0.200	BFI2248	09/21/2022 11:21	PNU
SM 2540 D	Residue-nonfilterable (TSS)	A	5.68	mg/L	1	1.00	1.00	BFI1857	09/15/2022 11:30	BP

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www NWDLS.com  
TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler

Sample Matrix: Waste Water

Lab Sample ID: 22I2331-02RE1

Date Collected: 09/13/2022 6:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**General Chemistry**

EPA 300.0	Chloride (Rerun)	A	96.3CB	mg/L	5	0.172	5.00	BFI1844	09/14/2022 17:16	ORP
EPA 300.0	Nitrate as N (Rerun)	A	20200	ug/L	5	71.0	625	BFI1844	09/14/2022 17:16	ORP
SM 4500-NH3 C	Total Kjeldahl Nitrogen - (TKN) (Rerun)	A	<1.00U	mg/L	1	0.100	1.00	BFI3235	09/26/2022 13:34	GIW

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TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab  
Lab Sample ID: 22I2331-03  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 09/13/2022 7:00  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BFI2318	09/16/2022 15:33	FAL
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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
09/30/2022 15:34

**Sample Results**  
(Continued)

Client Sample ID: 18 Mohm DI  
Lab Sample ID: 22I2331-05  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 09/13/2022 7:00  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BFI2318	09/16/2022 15:28	FAL
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**Reported:**  
09/30/2022 15:34

## Quality Control

### Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BFI1919 - EPA 1631

##### Blank (BFI1919-BLK1)

Prepared: 9/14/2022 Analyzed: 9/15/2022

Mercury	<0.00500	U	0.00500	ug/L						
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##### Blank (BFI1919-BLK2)

Prepared: 9/14/2022 Analyzed: 9/15/2022

Mercury	<0.00500	U	0.00500	ug/L						
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##### Blank (BFI1919-BLK3)

Prepared: 9/14/2022 Analyzed: 9/15/2022

Mercury	<0.00500	U	0.00500	ug/L						
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##### Matrix Spike (BFI1919-MS1)

Source: 22I2195-02

Prepared: 9/14/2022 Analyzed: 9/15/2022

Mercury	0.0258	J1	0.00526	ug/L	0.0526	<0.00526	49.0	71-125		
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##### Matrix Spike Dup (BFI1919-MSD1)

Source: 22I2195-02

Prepared: 9/14/2022 Analyzed: 9/15/2022

Mercury	0.0252	J1	0.00526	ug/L	0.0526	<0.00526	47.9	71-125	2.13	24
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#### Batch: BFI2134 - EPA 200.8

##### Blank (BFI2134-BLK1)

Prepared: 9/15/2022 Analyzed: 9/27/2022

Barium	<3.00	U	3.00	ug/L						
Beryllium	<0.500	U	0.500	ug/L						
Cadmium	<1.00	U	1.00	ug/L						
Chromium	<3.00	U	3.00	ug/L						
Copper	<2.00	U	2.00	ug/L						
Lead	<0.500	U	0.500	ug/L						
Nickel	<2.00	U	2.00	ug/L						
Selenium	<5.00	U	5.00	ug/L						
Silver	<0.500	U	0.500	ug/L						
Thallium	<0.500	U	0.500	ug/L						



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**Reported:**  
 09/30/2022 15:34

### Quality Control (Continued)

#### Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BFI2134 - EPA 200.8 (Continued)</b>										
<b>Blank (BFI2134-BLK2)</b>					Prepared: 9/15/2022 Analyzed: 9/28/2022					
Antimony	<5.00	U	5.00	ug/L						
<b>Blank (BFI2134-BLK3)</b>					Prepared: 9/15/2022 Analyzed: 9/28/2022					
Aluminum	<2.50	U	2.50	ug/L						
<b>Blank (BFI2134-BLK4)</b>					Prepared: 9/15/2022 Analyzed: 9/29/2022					
Zinc	<5.00	U	5.00	ug/L						
<b>Blank (BFI2134-BLK5)</b>					Prepared: 9/15/2022 Analyzed: 9/29/2022					
Arsenic	<0.500	U	0.500	ug/L						
<b>LCS (BFI2134-BS1)</b>					Prepared: 9/15/2022 Analyzed: 9/27/2022					
Barium	331		3.00	ug/L	300		110	85-115		
Beryllium	21.3		0.200	ug/L	20.0		107	85-115		
Cadmium	110		1.00	ug/L	100		110	85-115		
Chromium	322		3.00	ug/L	300		107	85-115		
Copper	109		2.00	ug/L	100		109	85-115		
Lead	55.6		0.500	ug/L	50.0		111	85-115		
Nickel	108		2.00	ug/L	100		108	85-115		
Selenium	209		5.00	ug/L	200		104	85-115		
Silver	56.2		0.500	ug/L	50.0		112	85-115		
Thallium	55.1		0.500	ug/L	50.0		110	85-115		
<b>LCS (BFI2134-BS2)</b>					Prepared: 9/15/2022 Analyzed: 9/28/2022					
Antimony	113		1.00	ug/L	100		113	85-115		
<b>LCS (BFI2134-BS3)</b>					Prepared: 9/15/2022 Analyzed: 9/28/2022					
Aluminum	267		2.50	ug/L	250		107	85-115		

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Reported:  
09/30/2022 15:34

### Quality Control (Continued)

#### Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BFI2134 - EPA 200.8 (Continued)

##### LCS (BFI2134-BS4)

Prepared: 9/15/2022 Analyzed: 9/29/2022

Zinc	218		2.00	ug/L	200		109	85-115		
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##### LCS (BFI2134-BS5)

Prepared: 9/15/2022 Analyzed: 9/29/2022

Arsenic	51.4		0.500	ug/L	50.0		103	85-115		
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##### Duplicate (BFI2134-DUP1)

Source: 22I0142-02

Prepared: 9/15/2022 Analyzed: 9/27/2022

Barium	122		3.00	ug/L		123		0.208	20
Beryllium	<0.200	U	0.200	ug/L		<0.200			20
Cadmium	0.0570	U	1.00	ug/L		0.0710		21.9	20
Chromium	0.579	U	3.00	ug/L		0.448		25.5	20
Copper	3.73		2.00	ug/L		3.76		0.881	20
Lead	0.728		0.500	ug/L		0.741		1.77	20
Nickel	18.7		2.00	ug/L		19.4		3.83	20
Selenium	1.19	U	5.00	ug/L		1.07		10.5	20
Silver	0.0150	U	0.500	ug/L		0.0220		37.8	20
Thallium	<0.500	U	0.500	ug/L		<0.500			20

##### Duplicate (BFI2134-DUP2)

Source: 22I2491-02

Prepared: 9/15/2022 Analyzed: 9/27/2022

Barium	77.3		3.00	ug/L		77.9		0.733	20
Cadmium	0.0150	U	1.00	ug/L		0.0150		0.00	20
Chromium	0.475	U	3.00	ug/L		0.469		1.27	20
Copper	3.47		2.00	ug/L		3.41		1.68	20
Lead	0.153	U	0.500	ug/L		0.157		2.58	20
Nickel	1.26	U	2.00	ug/L		1.22		2.90	20
Selenium	0.548	U	5.00	ug/L		0.482		12.8	20
Silver	0.0110	U	0.500	ug/L		0.0100		9.52	20
Thallium	<0.500	U	0.500	ug/L		<0.500			20

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**Reported:**  
09/30/2022 15:34

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BFI2134 - EPA 200.8 (Continued)</b>										
<b>Duplicate (BFI2134-DUP3)</b>										
			<b>Source: 22I0142-02</b>		Prepared: 9/15/2022 Analyzed: 9/28/2022					
Antimony	0.234	U	1.00	ug/L		0.238			1.69	20
<b>Duplicate (BFI2134-DUP4)</b>										
			<b>Source: 22I2491-02</b>		Prepared: 9/15/2022 Analyzed: 9/28/2022					
Antimony	0.608	U	1.00	ug/L		0.592			2.67	20
<b>Duplicate (BFI2134-DUP5)</b>										
			<b>Source: 22I0142-02</b>		Prepared: 9/15/2022 Analyzed: 9/28/2022					
Aluminum	909		12.5	ug/L		913			0.441	20
<b>Duplicate (BFI2134-DUP6)</b>										
			<b>Source: 22I2491-02</b>		Prepared: 9/15/2022 Analyzed: 9/28/2022					
Aluminum	37.7		2.50	ug/L		35.9			4.68	20
Beryllium	<0.200	U	0.200	ug/L		<0.200				20
<b>Duplicate (BFI2134-DUP7)</b>										
			<b>Source: 22I0142-02</b>		Prepared: 9/15/2022 Analyzed: 9/29/2022					
Zinc	10.5		2.00	ug/L		11.0			4.06	20
<b>Duplicate (BFI2134-DUP8)</b>										
			<b>Source: 22I2491-02</b>		Prepared: 9/15/2022 Analyzed: 9/29/2022					
Zinc	42.3		2.00	ug/L		42.3			0.203	20
<b>Duplicate (BFI2134-DUP9)</b>										
			<b>Source: 22I0142-02</b>		Prepared: 9/15/2022 Analyzed: 9/29/2022					
Arsenic	1.79		0.500	ug/L		1.90			5.97	20
<b>Duplicate (BFI2134-DUPA)</b>										
			<b>Source: 22I2491-02</b>		Prepared: 9/15/2022 Analyzed: 9/29/2022					
Arsenic	0.636		0.500	ug/L		0.656			3.10	20
<b>Matrix Spike (BFI2134-MS1)</b>										
			<b>Source: 22I0142-02</b>		Prepared: 9/15/2022 Analyzed: 9/27/2022					
Barium	439		3.00	ug/L	300	123	106	75-125		
Beryllium	19.1		0.200	ug/L	20.0	<0.200	95.3	75-125		
Cadmium	103		1.00	ug/L	100	0.0710	103	75-125		
Chromium	295		3.00	ug/L	300	0.448	98.3	75-125		
Copper	98.8		2.00	ug/L	100	3.76	95.1	75-125		
Lead	51.5		0.500	ug/L	50.0	0.741	102	75-125		
Nickel	115		2.00	ug/L	100	19.4	95.7	75-125		
Selenium	193		5.00	ug/L	200	1.07	96.1	75-125		
Silver	52.6		0.500	ug/L	50.0	0.0220	105	75-125		
Thallium	50.2		0.500	ug/L	50.0	<0.500	100	75-125		

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**Reported:**  
09/30/2022 15:34

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BFI2134 - EPA 200.8 (Continued)**

**Matrix Spike (BFI2134-MS2)**

**Source: 22I2491-02**

Prepared: 9/15/2022 Analyzed: 9/27/2022

Barium	410		3.00	ug/L	300	77.9	111	75-125		
Cadmium	102		1.00	ug/L	100	0.0150	102	75-125		
Chromium	297		3.00	ug/L	300	0.469	98.9	75-125		
Copper	98.9		2.00	ug/L	100	3.41	95.5	75-125		
Lead	52.4		0.500	ug/L	50.0	0.157	104	75-125		
Nickel	98.9		2.00	ug/L	100	1.22	97.7	75-125		
Selenium	186		5.00	ug/L	200	0.482	92.7	75-125		
Silver	51.8		0.500	ug/L	50.0	0.0100	104	75-125		
Thallium	51.3		0.500	ug/L	50.0	<0.500	103	75-125		

**Matrix Spike (BFI2134-MS3)**

**Source: 22I0142-02**

Prepared: 9/15/2022 Analyzed: 9/28/2022

Antimony	108		1.00	ug/L	100	0.238	108	75-125		
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**Matrix Spike (BFI2134-MS4)**

**Source: 22I2491-02**

Prepared: 9/15/2022 Analyzed: 9/28/2022

Antimony	114		1.00	ug/L	100	0.592	113	75-125		
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**Matrix Spike (BFI2134-MS5)**

**Source: 22I0142-02**

Prepared: 9/15/2022 Analyzed: 9/28/2022

Aluminum	1250	J1	12.5	ug/L	250	913	135	75-125		
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**Matrix Spike (BFI2134-MS6)**

**Source: 22I2491-02**

Prepared: 9/15/2022 Analyzed: 9/28/2022

Aluminum	289		2.50	ug/L	250	35.9	101	75-125		
Beryllium	19.1		0.200	ug/L	20.0	<0.200	95.4	75-125		

**Matrix Spike (BFI2134-MS7)**

**Source: 22I0142-02**

Prepared: 9/15/2022 Analyzed: 9/29/2022

Zinc	215		2.00	ug/L	200	11.0	102	75-125		
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**Matrix Spike (BFI2134-MS8)**

**Source: 22I2491-02**

Prepared: 9/15/2022 Analyzed: 9/29/2022

Zinc	252		2.00	ug/L	200	42.3	105	75-125		
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**Reported:**  
09/30/2022 15:34

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BFI2134 - EPA 200.8 (Continued)**

**Matrix Spike (BFI2134-MS9)**

Source: 2210142-02

Prepared: 9/15/2022 Analyzed: 9/29/2022

Arsenic	53.3		0.500	ug/L	50.0	1.90	103	75-125		
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**Matrix Spike (BFI2134-MSA)**

Source: 2212491-02

Prepared: 9/15/2022 Analyzed: 9/29/2022

Arsenic	52.5		0.500	ug/L	50.0	0.656	104	75-125		
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**Batch: BFI2318 - EPA 1631**

**Blank (BFI2318-BLK1)**

Prepared & Analyzed: 9/16/2022

Mercury	<0.00500	U	0.00500	ug/L						
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**Blank (BFI2318-BLK2)**

Prepared & Analyzed: 9/16/2022

Mercury	<0.00500	U	0.00500	ug/L						
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**Blank (BFI2318-BLK3)**

Prepared & Analyzed: 9/16/2022

Mercury	<0.00500	U	0.00500	ug/L						
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**Matrix Spike (BFI2318-MS1)**

Source: 2212491-03

Prepared & Analyzed: 9/16/2022

Mercury	0.0749		0.00526	ug/L	0.0526	0.0245	95.7	71-125		
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**Matrix Spike (BFI2318-MS2)**

Source: 2212166-02

Prepared & Analyzed: 9/16/2022

Mercury	0.0856	J1	0.00526	ug/L	0.0526	0.0583	51.8	71-125		
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**Matrix Spike Dup (BFI2318-MSD1)**

Source: 2212491-03

Prepared & Analyzed: 9/16/2022

Mercury	0.0741		0.00526	ug/L	0.0526	0.0245	94.1	71-125	1.15	24
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**Matrix Spike Dup (BFI2318-MSD2)**

Source: 2212166-02

Prepared & Analyzed: 9/16/2022

Mercury	0.0771	J1	0.00526	ug/L	0.0526	0.0583	35.7	71-125	10.4	24
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**Reported:**  
09/30/2022 15:34

**Quality Control**  
(Continued)

**Metals, Dissolved**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BFI2832 - Cr VI**

<b>Matrix Spike (BFI2832-MS1)</b>		<b>Source: 22I0151-02</b>			Prepared & Analyzed: 9/21/2022					
Chromium (VI)	271		3.00	ug/L	250	37.5	93.2	70-130		
<b>Matrix Spike Dup (BFI2832-MSD1)</b>		<b>Source: 22I0151-02</b>			Prepared & Analyzed: 9/21/2022					
Chromium (VI)	279		3.00	ug/L	250	37.5	96.7	70-130	3.12	20

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Reported:  
09/30/2022 15:34

### Quality Control (Continued)

#### General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BFI1568 - EPA 300.0</b>										
<b>Duplicate (BFI1568-DUP1)</b>		<b>Source: 22I2106-01</b>			<b>Prepared &amp; Analyzed: 9/13/2022</b>					
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Sulfate	16.7		1.00	mg/L		16.7			0.0779	15
Nitrate as N	<125	U	125	ug/L		<125				15
Chloride	182		5.00	mg/L		181			0.358	15
Fluoride	0.622		0.250	mg/L		0.615			1.13	15
<b>Duplicate (BFI1568-DUP2)</b>		<b>Source: 22I2071-02</b>			<b>Prepared &amp; Analyzed: 9/13/2022</b>					
Chloride	190		5.00	mg/L		193			1.58	15
Nitrite as N	389		50.0	ug/L		385			1.03	15
Sulfate	143		5.00	mg/L		145			1.38	15
Nitrate as N	1400		125	ug/L		1400			0.143	15
Fluoride	0.893		0.250	mg/L		0.886			0.787	15
<b>MRL Check (BFI1568-MRL1)</b>					<b>Prepared &amp; Analyzed: 9/13/2022</b>					
Sulfate	1.37		1.00	mg/L	1.00		137	50-150		
Chloride	1.18		1.00	mg/L	1.00		118	50-150		
Nitrite as N	66.0		50.0	ug/L	50.0		132	50-150		
Fluoride	0.359		0.250	mg/L	0.250		144	50-150		
Nitrate as N	179		125	ug/L	125		143	50-150		
<b>Matrix Spike (BFI1568-MS1)</b>		<b>Source: 22I2106-01</b>			<b>Prepared &amp; Analyzed: 9/13/2022</b>					
Sulfate	40.4		1.11	mg/L	22.2	16.7	107	80-120		
Nitrate as N	2860		139	ug/L	2780	<139	103	80-120		
Fluoride	6.15		0.278	mg/L	5.56	0.615	99.6	80-120		
Chloride	196	J1	5.56	mg/L	11.1	181	133	80-120		
Nitrite as N	1490	J1	55.6	ug/L	1110	<55.6	134	80-120		
<b>Matrix Spike (BFI1568-MS2)</b>		<b>Source: 22I2071-02</b>			<b>Prepared &amp; Analyzed: 9/13/2022</b>					
Nitrite as N	1590		55.6	ug/L	1110	385	108	80-120		
Chloride	205		5.56	mg/L	11.1	193	109	80-120		
Fluoride	6.62		0.278	mg/L	5.56	0.886	103	80-120		
Nitrate as N	4330		139	ug/L	2780	1400	106	80-120		
Sulfate	168		5.56	mg/L	22.2	145	103	80-120		

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**Reported:**  
09/30/2022 15:34

### Quality Control (Continued)

#### General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BFI1747 - EPA 1664</b>										
<b>Blank (BFI1747-BLK1)</b>					Prepared & Analyzed: 9/14/2022					
n-Hexane Extractable Material (O&G)	<5.00	U	5.00	mg/L						
<b>LCS (BFI1747-BS1)</b>					Prepared & Analyzed: 9/14/2022					
n-Hexane Extractable Material (O&G)	43.5		5.00	mg/L	40.0		109	77.5-114.5		
<b>LCS Dup (BFI1747-BSD1)</b>					Prepared & Analyzed: 9/14/2022					
n-Hexane Extractable Material (O&G)	42.9		5.00	mg/L	40.0		107	77.5-114.5	1.46	20.5
<b>Matrix Spike (BFI1747-MS1)</b>					Prepared & Analyzed: 9/14/2022					
n-Hexane Extractable Material (O&G)	29.1	J1	5.00	mg/L	40.0	5.85	58.0	77.5-114.5		
<b>Batch: BFI1782 - TDS</b>										
<b>Blank (BFI1782-BLK1)</b>					Prepared: 9/14/2022 Analyzed: 9/16/2022					
Residue-filterable (TDS)	<10.0	U	10.0	mg/L						
<b>LCS (BFI1782-BS1)</b>					Prepared: 9/14/2022 Analyzed: 9/16/2022					
Residue-filterable (TDS)	143		10.0	mg/L	150		95.3	90-110		
<b>Duplicate (BFI1782-DUP1)</b>					Prepared: 9/14/2022 Analyzed: 9/16/2022					
Residue-filterable (TDS)	512		10.0	mg/L		512			0.00	10
<b>Duplicate (BFI1782-DUP2)</b>					Prepared: 9/14/2022 Analyzed: 9/16/2022					
Residue-filterable (TDS)	834		10.0	mg/L		836			0.240	10
<b>Batch: BFI1797 - NH3-N SEAL-350.1</b>										
<b>Matrix Spike (BFI1797-MS1)</b>					Prepared & Analyzed: 9/14/2022					
Ammonia as N	0.500		0.0500	mg/L	0.400	0.0629	109	90-110		

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**Reported:**  
09/30/2022 15:34

### Quality Control (Continued)

#### General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BFI1797 - NH3-N SEAL-350.1 (Continued)</b>										
<b>Matrix Spike (BFI1797-MS2)</b>			<b>Source: 22H3513-04RE1</b>			Prepared & Analyzed: 9/14/2022				
Ammonia as N	0.847	J1	0.0500	mg/L	0.400	0.359	122	90-110		
<b>Matrix Spike Dup (BFI1797-MSD1)</b>			<b>Source: 22I2335-02</b>			Prepared & Analyzed: 9/14/2022				
Ammonia as N	0.524	J1	0.0500	mg/L	0.400	0.0629	115	90-110	4.81	20
<b>Matrix Spike Dup (BFI1797-MSD2)</b>			<b>Source: 22H3513-04RE1</b>			Prepared & Analyzed: 9/14/2022				
Ammonia as N	0.826	J1	0.0500	mg/L	0.400	0.359	117	90-110	2.58	20
<b>Batch: BFI1844 - EPA 300.0</b>										
<b>Duplicate (BFI1844-DUP1)</b>			<b>Source: 22I2049-04</b>			Prepared & Analyzed: 9/14/2022				
Nitrate as N	174		125	ug/L		173			0.576	15
Chloride	32.9		1.00	mg/L		32.9			0.00608	15
<b>Duplicate (BFI1844-DUP2)</b>			<b>Source: 22I2065-03</b>			Prepared & Analyzed: 9/14/2022				
Nitrate as N	155		125	ug/L		153			1.30	15
Chloride	33.1		1.00	mg/L		33.1			0.00606	15
<b>MRL Check (BFI1844-MRL1)</b>						Prepared & Analyzed: 9/14/2022				
Nitrate as N	168		125	ug/L		125	134	50-150		
Chloride	1.16		1.00	mg/L		1.00	116	50-150		
<b>Matrix Spike (BFI1844-MS1)</b>			<b>Source: 22I2049-04</b>			Prepared & Analyzed: 9/14/2022				
Nitrate as N	2950		139	ug/L	2780	173	99.9	80-120		
Chloride	46.0		1.11	mg/L	11.1	32.9	119	80-120		
<b>Matrix Spike (BFI1844-MS2)</b>			<b>Source: 22I2065-03</b>			Prepared & Analyzed: 9/14/2022				
Chloride	45.8		1.11	mg/L	11.1	33.1	115	80-120		
Nitrate as N	2970		139	ug/L	2780	153	101	80-120		

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**Reported:**  
09/30/2022 15:34

**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
<b>Batch: BFI1857 - TSS</b>									
<b>Blank (BFI1857-BLK1)</b>					Prepared: 9/14/2022 Analyzed: 9/15/2022				
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L					
<b>LCS (BFI1857-BS1)</b>					Prepared: 9/14/2022 Analyzed: 9/15/2022				
Residue-nonfilterable (TSS)	99.7		1.00	mg/L	100	99.7	85-115		
<b>Duplicate (BFI1857-DUP1)</b>					Prepared: 9/14/2022 Analyzed: 9/15/2022				
Residue-nonfilterable (TSS)	4.84		1.00	mg/L		4.42		9.09	10
<b>Duplicate (BFI1857-DUP2)</b>					Prepared: 9/14/2022 Analyzed: 9/15/2022				
Residue-nonfilterable (TSS)	5.89		1.00	mg/L		5.68		3.64	10
<b>Batch: BFI1917 - CBOD-5210</b>									
<b>LCS (BFI1917-BS1)</b>					Prepared: 9/14/2022 Analyzed: 9/19/2022				
Carbonaceous BOD (CBOD)	224			mg/L	198	113	85-115		
<b>Duplicate (BFI1917-DUP1)</b>					Prepared: 9/14/2022 Analyzed: 9/19/2022				
Carbonaceous BOD (CBOD)	<2.40	U, J4	2.40	mg/L		<2.40			40
<b>Duplicate (BFI1917-DUP2)</b>					Prepared: 9/14/2022 Analyzed: 9/19/2022				
Carbonaceous BOD (CBOD)	<2.40	U, J4	2.40	mg/L		3.10		200	40
<b>Duplicate (BFI1917-DUP3)</b>					Prepared: 9/14/2022 Analyzed: 9/19/2022				
Carbonaceous BOD (CBOD)	<2.40	J4, U	2.40	mg/L		2.40			40
<b>Duplicate (BFI1917-DUP4)</b>					Prepared: 9/14/2022 Analyzed: 9/19/2022				
Carbonaceous BOD (CBOD)	<2.40	U, J4	2.40	mg/L		6.38		200	40

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**Reported:**  
 09/30/2022 15:34

### Quality Control (Continued)

#### General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BFI1917 - CBOD-5210 (Continued)</b>										
<b>Duplicate (BFI1917-DUP5)</b>	<b>Source: 22I2378-02</b>									
Carbonaceous BOD (CBOD)	3.10		2.40	mg/L		<2.40			200	40
Prepared: 9/14/2022 Analyzed: 9/19/2022										
<b>Duplicate (BFI1917-DUP6)</b>	<b>Source: 22I0021-01</b>									
Carbonaceous BOD (CBOD)	<2.40	U, J4	2.40	mg/L		3.34			200	40
Prepared: 9/14/2022 Analyzed: 9/19/2022										
<b>Duplicate (BFI1917-DUP7)</b>	<b>Source: 22I2341-03</b>									
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		<2.40				40
Prepared: 9/14/2022 Analyzed: 9/19/2022										
<b>Duplicate (BFI1917-DUP8)</b>	<b>Source: 22I2159-08</b>									
Carbonaceous BOD (CBOD)	88.9	J1	50.0	mg/L		111			22.5	20
Prepared: 9/14/2022 Analyzed: 9/19/2022										
<b>Duplicate (BFI1917-DUP9)</b>	<b>Source: 22I0148-02</b>									
Carbonaceous BOD (CBOD)	6.46		2.40	mg/L		6.47			0.186	40
Prepared: 9/14/2022 Analyzed: 9/19/2022										
<b>Batch: BFI1988 - Alkalinity</b>										
<b>Blank (BFI1988-BLK1)</b>	<b>Source: 22I0148-02</b>									
Conductivity	<2.00	U	2.00	umhos/cm @ 25 °C						
Prepared & Analyzed: 9/15/2022										
<b>LCS (BFI1988-BS1)</b>	<b>Source: 22I0148-02</b>									
Conductivity	1440			umhos/cm @ 25 °C		1410	102	90-110		
Prepared & Analyzed: 9/15/2022										
<b>QCS (BFI1988-BS2)</b>	<b>Source: 22I0148-02</b>									
Conductivity	535			umhos/cm @ 25 °C		500	107	90-110		
Prepared & Analyzed: 9/15/2022										
<b>LCS (BFI1988-BS4)</b>	<b>Source: 22I0148-02</b>									
Alkalinity as CaCO3	96.4			mg/L		100	96.4	90-110		
Prepared & Analyzed: 9/15/2022										

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**Reported:**  
09/30/2022 15:34

### Quality Control (Continued)

#### General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BFI1988 - Alkalinity (Continued)

##### Duplicate (BFI1988-DUP1)

Source: 22I0780-01

Prepared & Analyzed: 9/15/2022

Alkalinity as CaCO <sub>3</sub>	111		10.0	mg/L		108			3.08	15
Conductivity	1020		2.00	umhos/cm @ 25 °C		1020			0.587	15

##### Duplicate (BFI1988-DUP2)

Source: 22I2486-01

Prepared & Analyzed: 9/15/2022

Alkalinity as CaCO <sub>3</sub>	115		10.0	mg/L		118			3.21	15
Conductivity	764		2.00	umhos/cm @ 25 °C		756			1.05	15

#### Batch: BFI2248 - Phosphorus EPA 365.1

##### LCS (BFI2248-BS1)

Prepared: 9/16/2022 Analyzed: 9/21/2022

Total Phosphorus	0.249		0.0100	mg/L	0.250		99.8	90-110		
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##### Matrix Spike (BFI2248-MS1)

Source: 22H2405-01

Prepared: 9/16/2022 Analyzed: 9/21/2022

Total Phosphorus	5.19		0.200	mg/L	5.00		104	80-120		
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##### Matrix Spike (BFI2248-MS2)

Source: 22I2106-01RE1

Prepared: 9/16/2022 Analyzed: 9/21/2022

Total Phosphorus	0.272		0.0100	mg/L	0.250	0.0388	93.2	80-120		
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##### Matrix Spike Dup (BFI2248-MSD1)

Source: 22H2405-01

Prepared: 9/16/2022 Analyzed: 9/21/2022

Total Phosphorus	4.99		0.200	mg/L	5.00		99.7	80-120	4.05	20
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##### Matrix Spike Dup (BFI2248-MSD2)

Source: 22I2106-01RE1

Prepared: 9/16/2022 Analyzed: 9/21/2022

Total Phosphorus	0.277		0.0100	mg/L	0.250	0.0388	95.4	80-120	2.00	20
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#### Batch: BFI2488 - CN-4500

##### Blank (BFI2488-BLK1)

Prepared & Analyzed: 9/19/2022

Total Cyanide	<10.0	U	10.0	ug/L						
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Reported:  
09/30/2022 15:34

**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BFI2488 - CN-4500 (Continued)**

**QCS (BFI2488-BS1)**

Prepared & Analyzed: 9/19/2022

Total Cyanide	200		10.0	ug/L	200		100	90-110		
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**MRL Check (BFI2488-MRL1)**

Prepared & Analyzed: 9/19/2022

Total Cyanide	14.4		10.0	ug/L	20.0		71.8	50-150		
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**Matrix Spike (BFI2488-MS1)**

Source: 22I0142-01

Prepared & Analyzed: 9/19/2022

Total Cyanide	205		10.0	ug/L	200	<10.0	102	80-120		
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**Matrix Spike Dup (BFI2488-MSD1)**

Source: 22I0142-01

Prepared & Analyzed: 9/19/2022

Total Cyanide	209		10.0	ug/L	200	<10.0	105	80-120	2.12	20
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**Batch: BFI3081 - TKN T**

**Blank (BFI3081-BLK1)**

Prepared: 9/22/2022 Analyzed: 9/23/2022

Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L						
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**LCS (BFI3081-BS1)**

Prepared: 9/22/2022 Analyzed: 9/23/2022

Total Kjeldahl Nitrogen - (TKN)	2.58	J1	1.00	mg/L	3.56		72.4	85-115		
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**Duplicate (BFI3081-DUP1)**

Source: 22I0021-01

Prepared: 9/22/2022 Analyzed: 9/23/2022

Total Kjeldahl Nitrogen - (TKN)	0.112	U	1.00	mg/L		0.224			66.7	20
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**Matrix Spike (BFI3081-MS1)**

Source: 22I0021-01

Prepared: 9/22/2022 Analyzed: 9/23/2022

Total Kjeldahl Nitrogen - (TKN)	2.80	J1	1.00	mg/L	4.00	0.224	64.4	85-115		
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**Batch: BFI3235 - TKN T**

**Blank (BFI3235-BLK1)**

Prepared: 9/23/2022 Analyzed: 9/26/2022

Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L						
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TCEQ T104704238-22-36  
TCEQ-TOX T104704202-22-17

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09/30/2022 15:34

### Quality Control (Continued)

#### General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BFI3235 - TKN T (Continued)

##### LCS (BFI3235-BS1)

Prepared: 9/23/2022 Analyzed: 9/26/2022

Total Kjeldahl Nitrogen - (TKN)	3.14		1.00	mg/L	3.56		88.1	85-115		
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##### Duplicate (BFI3235-DUP1)

Source: 22I0021-01RE1

Prepared: 9/23/2022 Analyzed: 9/26/2022

Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L	<1.00				20	
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##### Matrix Spike (BFI3235-MS1)

Source: 22I0021-01RE1

Prepared: 9/23/2022 Analyzed: 9/26/2022

Total Kjeldahl Nitrogen - (TKN)	2.46	J1	1.00	mg/L	4.00	<1.00	61.6	85-115		
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**Reported:**  
09/30/2022 15:34

**Quality Control**  
(Continued)

**Microbiology**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BFI1697 - TC EC Quantitray**

**Blank (BFI1697-BLK1)**

Prepared: 9/13/2022 Analyzed: 9/14/2022

Escherichia coli (E. coli) <1.00 U 1.00 MPN/100  
mL

**Duplicate (BFI1697-DUP1)**

**Source: 22I2354-01**

Prepared: 9/13/2022 Analyzed: 9/14/2022

Escherichia coli (E. coli) <1.00 U 1.00 MPN/100 1.00 200 200  
mL



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09/30/2022 15:34

## Sample Condition Checklist

### Work Order: 2212195

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

### Work Order: 2212196

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

### Work Order: 2212331

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



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Spring, TX 77383

**Reported:**  
09/30/2022 15:34

## Term and Qualifier Definitions

Item	Definition
CB	Associated calibration blank QC is outside the established quality control criteria - data not affected and acceptable to report.
FF	The blank for biochemical oxygen demand depleted more than the method limit of 0.20 mg/L.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
J4	Estimated value and sample is less than value - No dilution produced a depletion of 2 mg/L of DO or greater, oxygen demand of sample was less than anticipated.
U	Non-detected compound.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

\* A = Accredited, N = Not Accredited or Accreditation not available



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
281-651-9000 lab@nwdls.com



Page 1 of 1

22I2195

COC ID: 1104704202 21 15 COC TOX: 1104704202 21 15

Sample ID	Location	Date Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
22I2195-01	18 Mohm DI		9/12/2022	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	
22I2195-02	Outfall 001 3 Part Grab		9/12/2022	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 BrCl Composite VOA 4°C	

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other			
		(Circle and Write ID Below)			
Sampler (Signature) <i>HR</i>	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	
Print Name <i>Heath Reinke</i>	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	
Affiliation <i>NWDLS</i>	Relinquished To Lab By (Signature) <i>HR</i>	Date/Time <i>1200 9-12-22</i>	Received for Laboratory By (Signature) <i>Taylor Jones</i>	Date/Time <i>1200 9/12/22</i>	
Custody Seal Yes / No	COC Labels Agree Yes / No	Appropriate Volume Yes / No	Received on Ice Yes / No	Temperature °C	
Container Intact Yes / No	Appropriate Containers Yes / No	Coolers Intact Yes / No	Samples Accepted Yes / No	Thermometer ID	

Spring South

wko\_NWDLS\_COC\_LS Revision 4.1 Effective 2/17/2022



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
713.277.4000 lab@nwdls.com

Spec ID: 110470429 21 25 26 TCCQ FOX 1104704292 21 16



Page 1 of 1

22I2196

Client Name: Clayton Galloway

N.M.L.A., Inc.  
Clayton Galloway  
P.O. Box 8  
Spring, TX 77383  
Phone: 281-651-1618

Project Name: Toxics - Buffer 001 2 Part Grab Comp 2

Project Comments: 27112 1/2 Grand Rapids La "Operator: Josh Johnson - 281-382-8763"  
"GOVERNMENT GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED"

On-Site Comments:

Sample ID	Location	Date/Time Begin	Date/Time Sampled	Sampling Type	Container	Analysis/Preservation	Field Results
22I2196-01	18 Motor Dr		9/12/2022 1100	AC Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	
22I2196-02	Small 001 3 Part Grab		9/12/2022	AC Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 BrCl Composite VOA 4°C	

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other				
Sampler (Signature) <i>HR</i>		Relinquished By (Signature)		Date/Time	Received By (Signature)	Date/Time
Print Name <i>Heath Reinke</i>		Relinquished By (Signature)		Date/Time	Received By (Signature)	Date/Time
Affiliation <i>NWDLs</i>		Relinquished To Lab By (Signature) <i>HR</i>		Date/Time <i>9-12-22 1200</i>	Received for Laboratory By (Signature) <i>Taylor Jones</i>	Date/Time <i>9/12/22 1200</i>
Custody Seal Yes / No	COC Labels Agree Yes / No	Appropriate Volume Yes / No	Received on Ice Yes / No	Temperature °C		
Container Intact Yes / No	Appropriate Containers Yes / No	Coolers Intact Yes / No	Samples Accepted Yes / No	Thermometer ID		

Spring South

wko\_NWDLs\_COC\_LS Revision 4.1 Effective 2/17/2022





## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 • lab@nwdls.com

TCEQ T104704238-22-36 TCEQ-TOX T104704202-21-16



Page 1 of 3

**22I2331**

<b>Lab PM :</b> Deena Higginbotham	<b>Project Name :</b> Timberlane - Permit Renewal	<b>Schedule Comments</b>
M.M.I.A., Inc. Clayton Galloway P.O. Box 9 Spring, TX 77383 Phone: 281-651-1618	<b>Project Comments:</b> DO reading must be recorded before 9am Mark out Duplicated Outfall samples on the regular chain	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
22I2331-01	Outfall 001		9/13/2022 <i>0700</i>	AQ Grab	A HDPE 250mL NaOH B Glass Wide 1L w/ Teflon-lined Lid C HDPE S250mL Na2S2O3	TC EC-9223 Na2S2O3 <10°C O&G-1664 HCl 4°C CN AMEN-4500 NaOH 4°C CN T-4500 NaOH 4°C	DO Field <i>8.63</i> Flow MGD Field <i>1.37</i> pH Field <i>8.38</i> Total Chlorine <i>1.72</i> Residual WW Field

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## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-22-36 TCEQ-TOX T104704202-21-16



Page 3 of 3

**22I2331**

(Continued)

<b>Lab PM :</b> Deena Higginbotham		<b>Project Name :</b> Timberlane - Permit Renewal		<b>Schedule Comments</b>				
M.M.I.A., Inc. Clayton Galloway P.O. Box 9 Spring, TX 77383 Phone: 281-651-1618		<b>Project Comments</b> DO reading must be recorded before 9am Mark out Duplicated Outfall samples on the regular chain						
22I2331-03	Outfall 001 3 Part Grab		9/13/2022 0700	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 Composite VOA	BrCl 4°C	
22I2331-04	Outfall 001 3 Part Grab		9/13/2022	AQ Grab 3-Part Cor		Sub_VOA-624	4°C	
22I2331-05	18 Mohm DI		9/13/2022	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631	BrCl	

<b>Field Remarks:</b>		<b>Lab Preservation:</b> H2SO4 HNO3 NaOH Other _____			
		<b>(Circle and Write ID Below)</b>			
<b>Sampler (Signature)</b> <i>HR</i>	<b>Relinquished By (Signature)</b>	<b>Date/Time</b>	<b>Received By (Signature)</b>	<b>Date/Time</b>	
<b>Print Name</b> <i>Heath Reinre</i>	<b>Relinquished By (Signature)</b>	<b>Date/Time</b>	<b>Received By (Signature)</b>	<b>Date/Time</b>	
<b>Affiliation</b> <i>NWDLS</i>	<b>Relinquished To Lab By (Signature)</b> <i>HR</i>	<b>Date/Time</b> <i>1430 9-13-22</i>	<b>Received for Laboratory By (Signature)</b> <i>ROR</i>	<b>Date/Time</b> <i>1430 9-13-22</i>	
<b>Custody Seal</b> Yes / No	<b>COC Labels Agree</b> Yes / No	<b>Appropriate Volume</b> Yes / No	<b>Received on Ice</b> Yes / No	<b>Temperature</b> _____ °C	
<b>Container Intact</b> Yes / No	<b>Appropriate Containers</b> Yes / No	<b>Coolers Intact</b> Yes / No	<b>Samples Accepted</b> Yes / No	<b>Thermometer ID</b> _____	

Spring South

wko\_NWDLS\_COC\_LS Revision 4.1 Effective 2/17/2022



# SUBCONTRACT ORDER

**Sending Laboratory:**

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

**Subcontracted Laboratory:**

Ana-Lab Corporation  
2600 Dudley Road  
Kilgore, TX 75662  
Phone: (903) 984-0551  
Fax: (903) 984-5914

**Work Order: 22I2331**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

**Sample ID: 22I2331-02**   *Waste Water*   **Sampled: 09/13/2022 06:00**

Sub\_Carbaryl-Diuron-632      09/27/2022    09/20/2022 06:00

*Analyte(s):*

Carbaryl

Diuron

*Containers Supplied:*

Released By

9/14/22

Date

UPS

Received By

9/14/22

Date

NWDS-G

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Project  
1026875

Printed 09/20/2022 12:20

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22I2331

This report consists of this Table of Contents and the following pages:

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1026875_r03_03_ProjectResults	Ana-Lab Project P:1026875 C:NWDS Project Results t:304 PO: #26201	2
1026875_r10_05_ProjectQC	Ana-Lab Project P:1026875 C:NWDS Project Quality Control Groups	1
1026875_r99_09_CoC__1_of_1	Ana-Lab CoC NWDS 1026875_1_of_1	2
Total Pages:		6

Email: [projectmanager@ana-lab.com](mailto:projectmanager@ana-lab.com)



Report Page 1 of 7

## SAMPLE CROSS REFERENCE

Project  
**1026875**

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Printed 9/20/2022 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
<b>2126165</b>	2212331-02	09/13/2022	06:00:00	09/15/2022

Bottle 01 Client Supplied Amber Glass

Bottle 02 Client Supplied Amber Glass

Bottle 03 Prepared Bottle: 632L\632S 2 mL Autosampler Vial (Batch 1025834) Volume: 1.00000 mL <== Derived from 01 ( 948 ml )

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 632	03	1025834	09/16/2022	1026201	09/19/2022

Email: [projectmanager@ana-lab.com](mailto:projectmanager@ana-lab.com)



Report Page 2 of 7



NWDS-G

Page 1 of 2

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Project

1026875

Printed: 09/20/2022

2212331

## RESULTS

### Sample Results

2126165 2212331-02

Received: 09/15/2022

Non-Potable Water

Collected by: Client  
Taken: 09/13/2022

North Water District  
06:00:00

PO: #26201

EPA 632

Prepared: 1025834 09/16/2022 08:00:00 Analyzed 1026201 09/19/2022 16:16:00 BRU

Parameter	Results	Units	RL	Flags	CAS	Bottle
Carbaryl (Sevin)	<2.64	ug/L	2.64		63-25-2	03
Diuron	<0.0475	ug/L	0.0475		330-54-1	03

### Sample Preparation

2126165 2212331-02

Received: 09/15/2022

09/13/2022

#26201

Prepared: 09/16/2022 11:03:04 Calculated 09/16/2022 11:03:04 CAL

Environmental Fee (per Project)

Verified

EPA 632

Prepared: 1025834 09/16/2022 08:00:00 Analyzed 1025834 09/16/2022 08:00:00 CED

Liquid-Liquid Extr. W/Hex Ex

1/948

ml

02

EPA 632

Prepared: 1025834 09/16/2022 08:00:00 Analyzed 1026201 09/19/2022 16:16:00 BRU

NELAC Carbaryl/Diuron

Entered

03



Report Page 3 of 7

2600 Dudley Rd. Kilgore, Texas 75662  
R: 3306 State Highway 135 N. Kilgore, TX 75662  
Office: 903-984-0551 \* Fax: 903-984-5914

**NWDS-G**

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Project

1026875

Printed: 09/20/2022

Qualifiers:

We report results on an As Received (or Wet) basis unless marked 'Dry Weight'. Unless otherwise noted, testing was performed at Ana-lab corporate laboratory which holds International, Federal, and state accreditations. Please see <https://www.ana-lab-work.com/index.php/accreditations/>

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAP.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

*Bill Peery*

Bill Peery, MS, VP Technical Services



# QUALITY CONTROL

## NWDS-G

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Project

1026875

Printed 09/20/2022

Analytical Set

1026201

EPA 632

### Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Carbaryl (Sevin)	1025834	ND	66.1	2500	ug/L	124062710
Diuron	1025834	ND	44.4	45.0	ug/L	124062710

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbaryl (Sevin)	1000	1000	ug/L	100	70.0 - 130	124062709
Carbaryl (Sevin)	994	1000	ug/L	99.4	70.0 - 130	124062714
Diuron	996	1000	ug/L	99.6	70.0 - 130	124062709
Diuron	1020	1000	ug/L	102	70.0 - 130	124062714

### LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Carbaryl (Sevin)	1025834	731	667	1000	17.1 - 131	73.1	66.7	ug/L	9.16	30.0
Diuron	1025834	901	825	1000	0.100 - 138	90.1	82.5	ug/L	8.81	30.0

\* Out RPD is Relative Percent Difference:  $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent:  $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples, carried through preparation and analytical procedures exactly like a sample, monitors), CCV - Continuing Calibration Verification (same standard used to prepare the curve, typically a mid-range concentration, verifies the continued validity of the calibration curve), LCS Dup - Laboratory Control Sample Duplicate (replicate LCS, analyzed when there is insufficient sample for duplicate or MSD, quantifies accuracy and precision.)



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1026875 CoC Print Group 001 of 001



## SUBCONTRACT ORDER

**Sending Laboratory:**

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

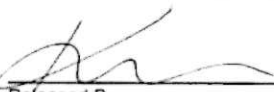

**Subcontracted Laboratory:**


Ana-Lab Corporation  
2600 Dudley Road  
Kilgore, TX 75662  
Phone: (903) 984-0551  
Fax: (903) 984-5914

**Work Order: 22I2331**

2126105

Analysis	Due	Expires	Comments
<b>Sample ID: 22I2331-02 Waste Water Sampled: 09/13/2022 06:00</b>			
Sub_Carbaryl-Diuron-632	09/27/2022	09/20/2022 06:00	
Analyte(s): Carbaryl	Diuron		
Containers Supplied:			

Released By  Date 9/14/22  
 9/15/22  
 UPS 1020

Received By UPS Date 9/14/22  
 9/15/22  
 CHRISTI PARKER ANA-LAB 1020

See Attached for  
Temperature # and Temp

1026875 CoC Print Group 001 of 001

1/1

about blank

CRYSTAL MOORE 9363216060 NWDLS 130 S TRADE CENTER PKWY CONROE TX 77385		5 LBS	1 OF 1
<b>SHIP TO:</b> ANA-LAB 903-984-0551 ANA-LAB 2600 DUDLEY ROAD KILGORE TX 75662			
		<b>TX 756 0-32</b> 	
<b>UPS NEXT DAY AIR</b> TRACKING #: 1Z 12W 40V 01 9412 2930			
			
BILLING: P/P			
XOL 22:09:02		NW 19 38 0A 09/2/2022	
		 TM	

9-15 1220 46  
Date Time Tech  
Temp: 24.704 c  
Therm#: 0083 Corr Fact: 0.0 C

about blank



# Laboratory Analysis Report

Total Number of Pages: 21

Job ID : 22091407



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

**Client Project Name :**  
**22I2331**

**Report To :** Client Name: NWDLS P.O.#.: 22I2331  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 09/13/22  
City, State, Zip: Conroe, Texas, 77385

**A&B Labs has analyzed the following samples...**

Client Sample ID	Matrix	A&B Sample ID
22I2331-02	Waste Water	22091407.01

A handwritten signature in cursive script that reads "ashute".

Released By: Amanda Shute

Title: Project Manager

Date: 9/22/2022



This Laboratory is NELAP ( T104704213) accredited. Effective: 04/01/2022; Expires: 3/31/2023

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 09/15/2022 08:05



# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 22091407

Date: 9/22/2022

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

## Qualifier Definition

L1	Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.
L2	Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.
V1	CCV recovery is above acceptance limits. This target analyte was not detected in the sample.



## LABORATORY TEST RESULTS

Job ID : 22091407

Date 9/22/2022

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 22I2331

Client Sample ID: 22I2331-02

Job Sample ID: 22091407.01

Date Collected: 09/13/22

Sample Matrix Waste Water

Time Collected: 06:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 608.3	Polychlorinated Biphenyls									
	Aroclor 1016	<0.0146	ug/L	1.00	0.0146	0.05			09/20/22 19:33	PS
	Aroclor 1221	<0.0129	ug/L	1.00	0.0129	0.05			09/20/22 19:33	PS
	Aroclor 1232	<0.0129	ug/L	1.00	0.0129	0.05			09/20/22 19:33	PS
	Aroclor 1242	<0.0129	ug/L	1.00	0.0129	0.05			09/20/22 19:33	PS
	Aroclor 1248	<0.0129	ug/L	1.00	0.0129	0.05			09/20/22 19:33	PS
	Aroclor 1254	<0.0129	ug/L	1.00	0.0129	0.05			09/20/22 19:33	PS
	Aroclor 1260	<0.01005	ug/L	1.00	0.01005	0.05			09/20/22 19:33	PS
	Total PCBs	<0.0129	ug/L	1.00	0.0129	0.05			09/20/22 19:33	PS
	Decachlorobiphenyl(surr)	36	%	1.00		35-129			09/20/22 19:33	PS
EPA 608.3	Organochlorine Pesticides									
	Alpha-chlordane	<0.002	ug/L	1.00	0.002	0.01			09/16/22 13:59	KMN
	Dicofol <sup>2</sup>	<0.05	ug/L	1.00		0.05			09/16/22 13:59	KMN
	Gamma-chlordane	<0.005	ug/L	1.00	0.005	0.01			09/16/22 13:59	KMN
	4,4-DDD	<0.006	ug/L	1.00	0.006	0.01			09/16/22 13:59	KMN
	4,4-DDE	<0.002	ug/L	1.00	0.002	0.01			09/16/22 13:59	KMN
	4,4-DDT	<0.004	ug/L	1.00	0.004	0.01		L1, L1,V1	09/16/22 13:59	KMN
	a-BHC	<0.008	ug/L	1.00	0.008	0.01			09/16/22 13:59	KMN
	Aldrin	<0.003	ug/L	1.00	0.003	0.01			09/16/22 13:59	KMN
	b-BHC	<0.01	ug/L	1.00	0.010	0.01			09/16/22 13:59	KMN
	Chlordane	<0.1	ug/L	1.00		0.1			09/16/22 13:59	KMN
	d-BHC	<0.004	ug/L	1.00	0.004	0.01			09/16/22 13:59	KMN
	Dieldrin	<0.003	ug/L	1.00	0.003	0.01			09/16/22 13:59	KMN
	Endosulfan I	<0.003	ug/L	1.00	0.003	0.01			09/16/22 13:59	KMN
	Endosulfan II	<0.004	ug/L	1.00	0.004	0.01			09/16/22 13:59	KMN
	Endosulfan sulfate	<0.003	ug/L	1.00	0.003	0.01			09/16/22 13:59	KMN
	Endrin	<0.004	ug/L	1.00	0.004	0.01			09/16/22 13:59	KMN
	Endrin aldehyde	<0.008	ug/L	1.00	0.008	0.01			09/16/22 13:59	KMN
	g-BHC	<0.005	ug/L	1.00	0.005	0.01			09/16/22 13:59	KMN
	Heptachlor	<0.005	ug/L	1.00	0.005	0.01			09/16/22 13:59	KMN
	Heptachlor epoxide	<0.002	ug/L	1.00	0.002	0.01			09/16/22 13:59	KMN
	Methoxychlor	<0.005	ug/L	1.00	0.005	0.01		L1, L1,V1	09/16/22 13:59	KMN
	Mirex <sup>2</sup>	<0.01	ug/L	1.00		0.01			09/16/22 13:59	KMN
	Toxaphene	<0.1	ug/L	1.00	0.1	0.1			09/16/22 13:59	KMN

ab-q212-0321



## LABORATORY TEST RESULTS

Job ID : 22091407

Date 9/22/2022

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 22I2331

Client Sample ID: 22I2331-02

Job Sample ID: 22091407.01

Date Collected: 09/13/22

Sample Matrix Waste Water

Time Collected: 06:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 608.3	Organochlorine Pesticides									
	Tetrachloro-m-xylene(surr)	69.5	%	1.00		24-127			09/16/22 13:59	KMN
	Decachlorobiphenyl(surr)	55.3	%	1.00		34-120			09/16/22 13:59	KMN
EPA 614	Organophosphorus Pesticides									
	Chlorpyrifos <sup>2</sup>	<0.04	ug/L	1.00	0.04	0.1			09/21/22 20:03	PS
	Demeton <sup>2</sup>	<0.04	ug/L	1.00	0.04	0.1			09/21/22 20:03	PS
	Diazinon <sup>2</sup>	<0.04	ug/L	1.00	0.04	0.1		L1, L1	09/21/22 20:03	PS
	Guthion <sup>2</sup>	<0.04	ug/L	1.00	0.04	0.1			09/21/22 20:03	PS
	Malathion <sup>2</sup>	<0.05	ug/L	1.00	0.05	0.1			09/21/22 20:03	PS
	Parathion <sup>2</sup>	<0.06	ug/L	1.00	0.06	0.1			09/21/22 20:03	PS
	4-Chloro-3-Nitro-Benzene (surr)	58.3	%	1.00		15-109			09/21/22 20:03	PS
EPA 615	Chlorinated Herbicides									
	2,4,5-TP	<0.19	ug/L	1.00	0.19	0.1902			09/19/22 21:05	PS
	2,4-D	<0.19	ug/L	1.00	0.19	0.188			09/19/22 21:05	PS
	DCPAA(surr)	70.4	%	1.00		38-120			09/19/22 21:05	PS
EPA 625.1	1,2,4,5-Tetrachlorobenzene	<0.00515	mg/L	1.03		0.00515			09/16/22 18:00	MS
	1,2,4-Trichlorobenzene	< 0.00055	mg/L	1.03	0.00055	0.00515			09/16/22 18:00	MS
	1,2-Diphenylhydrazine as Azobenzene	< 0.00023	mg/L	1.03	0.00023	0.00515			09/16/22 18:00	MS
	2,2-Oxybis (1-Chloropropane)	< 0.00088	mg/L	1.03	0.00088	0.00515		L2, L2	09/16/22 18:00	MS
	2,4,5-Trichlorophenol	< 0.00088	mg/L	1.03	0.00088	0.00515			09/16/22 18:00	MS
	2,4,6-Trichlorophenol	< 0.00081	mg/L	1.03	0.00081	0.00515			09/16/22 18:00	MS
	2,4-Dichlorophenol	< 0.00071	mg/L	1.03	0.00071	0.00515			09/16/22 18:00	MS
	2,4-Dimethylphenol	< 0.00055	mg/L	1.03	0.00055	0.00515			09/16/22 18:00	MS
	2,4-Dinitrophenol	< 0.00145	mg/L	1.03	0.00145	0.00515			09/16/22 18:00	MS
	2,4-Dinitrotoluene	< 0.00100	mg/L	1.03	0.00100	0.00515			09/16/22 18:00	MS
	2,6-Dinitrotoluene	< 0.00126	mg/L	1.03	0.00126	0.00515			09/16/22 18:00	MS
	2-Chloronaphthalene	< 0.00029	mg/L	1.03	0.00029	0.00515			09/16/22 18:00	MS
	2-Chlorophenol	< 0.00052	mg/L	1.03	0.00052	0.00515			09/16/22 18:00	MS
	2-Nitrophenol	< 0.00091	mg/L	1.03	0.00091	0.00515			09/16/22 18:00	MS
	3- & 4-Methylphenols <sup>2</sup>	< 0.00136	mg/L	1.03	0.00136	0.00515			09/16/22 18:00	MS
	3,3-Dichlorobenzidine	< 0.00091	mg/L	1.03	0.00091	0.00515			09/16/22 18:00	MS
	4,6-Dinitro-2-methylphenol	< 0.00068	mg/L	1.03	0.00068	0.00515			09/16/22 18:00	MS
	4-Bromophenyl phenyl ether	< 0.00042	mg/L	1.03	0.00042	0.00515			09/16/22 18:00	MS

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## LABORATORY TEST RESULTS

Job ID : 22091407

Date 9/22/2022

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 22I2331

Client Sample ID: 22I2331-02

Job Sample ID: 22091407.01

Date Collected: 09/13/22

Sample Matrix Waste Water

Time Collected: 06:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1										
	4-Chloro-3-methylphenol	< 0.00055	mg/L	1.03	0.00055	0.00515			09/16/22 18:00	MS
	4-Chlorophenyl phenyl ether	< 0.00068	mg/L	1.03	0.00068	0.00515			09/16/22 18:00	MS
	4-Nitrophenol	<0.00116	mg/L	1.03	0.00116	0.00515			09/16/22 18:00	MS
	Acenaphthene	< 0.00029	mg/L	1.03	0.00029	0.00515			09/16/22 18:00	MS
	Acenaphthylene	< 0.00048	mg/L	1.03	0.00048	0.00515			09/16/22 18:00	MS
	Anthracene	< 0.00036	mg/L	1.03	0.00036	0.00515			09/16/22 18:00	MS
	Benzidine	< 0.00068	mg/L	1.03	0.00068	0.00515			09/16/22 18:00	MS
	Benzo(a)anthracene	< 0.00039	mg/L	1.03	0.00039	0.00515			09/16/22 18:00	MS
	Benzo(a)pyrene	< 0.00088	mg/L	1.03	0.00088	0.00515			09/16/22 18:00	MS
	Benzo(b)fluoranthene	< 0.00059	mg/L	1.03	0.00059	0.00515			09/16/22 18:00	MS
	Benzo(g,h,i)perylene	< 0.00065	mg/L	1.03	0.00065	0.00515			09/16/22 18:00	MS
	Benzo(k)fluoranthene	< 0.00059	mg/L	1.03	0.00059	0.00515			09/16/22 18:00	MS
	Bis(2-chloroethoxy) methane	< 0.00036	mg/L	1.03	0.00036	0.00515			09/16/22 18:00	MS
	Bis(2-chloroethyl) ether	< 0.00074	mg/L	1.03	0.00074	0.00515			09/16/22 18:00	MS
	Bis(2-ethylhexyl )phthalate	< 0.00227	mg/L	1.03	0.00227	0.00515			09/16/22 18:00	MS
	Butyl benzyl phthalate	< 0.00071	mg/L	1.03	0.00071	0.00515			09/16/22 18:00	MS
	Chrysene	< 0.00059	mg/L	1.03	0.00059	0.00515			09/16/22 18:00	MS
	Dibenzo(a,h)anthracene	< 0.00071	mg/L	1.03	0.00071	0.00515			09/16/22 18:00	MS
	Diethyl phthalate	< 0.00065	mg/L	1.03	0.00065	0.00515			09/16/22 18:00	MS
	Dimethyl phthalate	< 0.00074	mg/L	1.03	0.00074	0.00515			09/16/22 18:00	MS
	Di-n-butyl phthalate	< 0.00126	mg/L	1.03	0.00126	0.00515			09/16/22 18:00	MS
	Di-n-octyl Phthalate	<0.00284	mg/L	1.03	0.00284	0.00515			09/16/22 18:00	MS
	Fluoranthene	< 0.00045	mg/L	1.03	0.00045	0.00515			09/16/22 18:00	MS
	Fluorene	< 0.00048	mg/L	1.03	0.00048	0.00515			09/16/22 18:00	MS
	Hexachlorobenzene	< 0.00071	mg/L	1.03	0.00071	0.00515			09/16/22 18:00	MS
	Hexachlorobutadiene	< 0.00042	mg/L	1.03	0.00042	0.00515			09/16/22 18:00	MS
	Hexachlorocyclopentadiene	< 0.00036	mg/L	1.03	0.00036	0.00515		L2, L2	09/16/22 18:00	MS
	Hexachloroethane	< 0.00048	mg/L	1.03	0.00048	0.00515			09/16/22 18:00	MS
	Hexachlorophene <sup>2</sup>	< 0.0296	mg/L	1.03	0.0296	0.206		L2, L2	09/16/22 18:00	MS
	Indeno(1,2,3-cd)pyrene	< 0.00023	mg/L	1.03	0.00023	0.00515			09/16/22 18:00	MS
	Isophorone	< 0.00029	mg/L	1.03	0.00029	0.00515			09/16/22 18:00	MS
	Naphthalene	< 0.00032	mg/L	1.03	0.00032	0.00515			09/16/22 18:00	MS
	Nitrobenzene	< 0.00094	mg/L	1.03	0.00094	0.00515			09/16/22 18:00	MS
	Nitroso-N-diethylamine	<0.00515	mg/L	1.03		0.00515			09/16/22 18:00	MS
	N-Nitrosodibutylamine	<0.00515	mg/L	1.03		0.00515			09/16/22 18:00	MS

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## LABORATORY TEST RESULTS

Job ID : 22091407

Date 9/22/2022

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 22I2331

Client Sample ID: 22I2331-02

Job Sample ID: 22091407.01

Date Collected: 09/13/22

Sample Matrix Waste Water

Time Collected: 06:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1										
	N-Nitrosodimethylamine	< 0.00081	mg/L	1.03	0.00081	0.00515			09/16/22 18:00	MS
	N-nitroso-di-n-propylamine	< 0.00074	mg/L	1.03	0.00074	0.00515			09/16/22 18:00	MS
	N-Nitrosodiphenylamine	< 0.00048	mg/L	1.03	0.00048	0.00515			09/16/22 18:00	MS
	Pentachlorobenzene	< 0.00309	mg/L	1.03	0.00309	0.00515			09/16/22 18:00	MS
	Pentachlorophenol	< 0.00052	mg/L	1.03	0.00052	0.00515			09/16/22 18:00	MS
	Phenanthrene	< 0.00045	mg/L	1.03	0.00045	0.00515			09/16/22 18:00	MS
	Phenol	< 0.00045	mg/L	1.03	0.00045	0.00515			09/16/22 18:00	MS
	Pyrene	< 0.00059	mg/L	1.03	0.00059	0.00515			09/16/22 18:00	MS
	Pyridine	< 0.00036	mg/L	1.03	0.00036	0.00515			09/16/22 18:00	MS
	2-Fluorophenol(surr)	44.5	%	1.03		15-115			09/16/22 18:00	MS
	Phenol-d6(surr)	33.9	%	1.03		10-130			09/16/22 18:00	MS
	Nitrobenzene-d5(surr)	86.2	%	1.03		23-120			09/16/22 18:00	MS
	2-Fluorobiphenyl(surr)	76.8	%	1.03		30-115			09/16/22 18:00	MS
	2,4,6-Tribromophenol(surr)	78.9	%	1.03		19-122			09/16/22 18:00	MS
	p-Terphenyl-d14(surr)	81.8	%	1.03		18-137			09/16/22 18:00	MS
ASTM D7065-11										
	Nonyl Phenol <sup>2</sup>	<5.15	ug/L	1.03		5.15			09/16/22 18:00	MS
	Terphenyl-d14(surr)	41.8	%	1.03		40-140			09/16/22 18:00	MS

ab-q212-0321

<sup>2</sup>-Parameter not available for accreditation.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Method : EPA 625.1 Reporting Units : mg/L

QC Batch ID : Qb220916123 Created Date : 09/16/22 Created By : MShah

Samples in This QC Batch : 22091407.01

Extraction : PB22091624 Prep Method : EPA 625.1 Prep Date : 09/16/22 08:00 Prep By : MMuteen

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MDL	MDL	Qual
1,2,4,5-Tetrachlorobenzene	95-94-3	< MDL	mg/L	1.00	0.005		
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1.00	0.005	0.00053	
1,2-Diphenylhydrazine as A	122-66-7	< MDL	mg/L	1.00	0.005	0.00022	
2,2-Oxybis (1-Chloropropan	108-60-1	< MDL	mg/L	1.00	0.005	0.00085	
2,4,5-Trichlorophenol	95-95-4	< MDL	mg/L	1.00	0.005	0.00085	
2,4,6-Trichlorophenol	88-06-2	< MDL	mg/L	1.00	0.005	0.00079	
2,4-Dichlorophenol	120-83-2	< MDL	mg/L	1.00	0.005	0.00069	
2,4-Dimethylphenol	105-67-9	< MDL	mg/L	1.00	0.005	0.00053	
2,4-Dinitrophenol	51-28-5	< MDL	mg/L	1.00	0.005	0.00141	
2,4-Dinitrotoluene	121-14-2	< MDL	mg/L	1.00	0.005	0.00097	
2,6-Dinitrotoluene	606-20-2	< MDL	mg/L	1.00	0.005	0.00122	
2-Chloronaphthalene	91-58-7	< MDL	mg/L	1.00	0.005	0.00028	
2-Chlorophenol	95-57-8	< MDL	mg/L	1.00	0.005	0.00050	
2-Nitrophenol	88-75-5	< MDL	mg/L	1.00	0.005	0.00088	
3- & 4-Methylphenols	65794-96-9	< MDL	mg/L	1.00	0.005	0.00132	
3,3-Dichlorobenzidine	91-94-1	< MDL	mg/L	1.00	0.005	0.00088	
4,6-Dinitro-2-methylphenol	534-52-1	< MDL	mg/L	1.00	0.005	0.00066	
4-Bromophenyl phenyl ethe	101-55-3	< MDL	mg/L	1.00	0.005	0.00041	
4-Chloro-3-methylphenol	59-50-7	< MDL	mg/L	1.00	0.005	0.00053	
4-Chlorophenyl phenyl ethe	7005-72-3	< MDL	mg/L	1.00	0.005	0.00066	
4-Nitrophenol	100-02-7	< MDL	mg/L	1.00	0.005	0.00113	
Acenaphthene	83-32-9	< MDL	mg/L	1.00	0.005	0.00028	
Acenaphthylene	208-96-8	< MDL	mg/L	1.00	0.005	0.00047	
Anthracene	120-12-7	< MDL	mg/L	1.00	0.005	0.00035	
Benzidine	92-87-5	< MDL	mg/L	1.00	0.005	0.00066	
Benzo(a)anthracene	56-55-3	< MDL	mg/L	1.00	0.005	0.00038	
Benzo(a)pyrene	50-32-8	< MDL	mg/L	1.00	0.005	0.00085	
Benzo(b)fluoranthene	205-99-2	< MDL	mg/L	1.00	0.005	0.00057	
Benzo(g,h,i)perylene	191-24-2	< MDL	mg/L	1.00	0.005	0.00063	
Benzo(k)fluoranthene	207-08-9	< MDL	mg/L	1.00	0.005	0.00057	
Bis(2-chloroethoxy) methan	111-91-1	< MDL	mg/L	1.00	0.005	0.00035	
Bis(2-chloroethyl) ether	111-44-4	< MDL	mg/L	1.00	0.005	0.00072	
Bis(2-ethylhexyl )phthalate	117-81-7	< MDL	mg/L	1.00	0.005	0.00220	
Butyl benzyl phthalate	85-68-7	< MDL	mg/L	1.00	0.005	0.00069	
Chrysene	218-01-9	< MDL	mg/L	1.00	0.005	0.00057	
Dibenzo(a,h)anthracene	53-70-3	< MDL	mg/L	1.00	0.005	0.00069	
Diethyl phthalate	84-66-2	< MDL	mg/L	1.00	0.005	0.00063	
Dimethyl phthalate	131-11-3	< MDL	mg/L	1.00	0.005	0.00072	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Method : EPA 625.1 Reporting Units : mg/L

QC Batch ID : Qb220916123 Created Date : 09/16/22 Created By : MShah

Samples in This QC Batch : 22091407.01

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Di-n-butyl phthalate	84-74-2	< MDL	mg/L	1.00	0.005	0.00122	
Di-n-octyl Phthalate	117-84-0	< MDL	mg/L	1.00	0.005	0.00276	
Fluoranthene	206-44-0	< MDL	mg/L	1.00	0.005	0.00044	
Fluorene	86-73-7	< MDL	mg/L	1.00	0.005	0.00047	
Hexachlorobenzene	118-74-1	< MDL	mg/L	1.00	0.005	0.00069	
Hexachlorobutadiene	87-68-3	< MDL	mg/L	1.00	0.005	0.00041	
Hexachlorocyclopentadiene	77-47-4	< MDL	mg/L	1.00	0.005	0.00035	
Hexachloroethane	67-72-1	< MDL	mg/L	1.00	0.005	0.00047	
Hexachlorophene	70-30-4	< MDL	mg/L	1.00	0.2	0.0287	
Indeno(1,2,3-cd)pyrene	193-39-5	< MDL	mg/L	1.00	0.005	0.00022	
Isophorone	78-59-1	< MDL	mg/L	1.00	0.005	0.00028	
Naphthalene	91-20-3	< MDL	mg/L	1.00	0.005	0.00031	
Nitrobenzene	98-95-3	< MDL	mg/L	1.00	0.005	0.00091	
Nitroso-N-diethylamine	55-18-5	< MQL	mg/L	1.00	0.005		
N-Nitrosodibutylamine	924-16-3	< MQL	mg/L	1.00	0.005		
N-Nitrosodimethylamine	62-75-9	< MDL	mg/L	1.00	0.005	0.00079	
N-nitroso-di-n-propylamine	621-64-7	< MDL	mg/L	1.00	0.005	0.00072	
N-Nitrosodiphenylamine	86-30-6	< MDL	mg/L	1.00	0.005	0.00047	
Pentachlorobenzene	608-93-5	< MDL	mg/L	1.00	0.005	0.003	
Pentachlorophenol	87-86-5	< MDL	mg/L	1.00	0.005	0.00050	
Phenanthrene	85-01-8	< MDL	mg/L	1.00	0.005	0.00044	
Phenol	108-95-2	< MDL	mg/L	1.00	0.005	0.00044	
Pyrene	129-00-0	< MDL	mg/L	1.00	0.005	0.00057	
Pyridine	110-86-1	< MDL	mg/L	1.00	0.005	0.00035	
2-Fluorophenol(surr)	367-12-4	59.4	%	1.00			
Phenol-d6(surr)	13127-88-3	39.7	%	1.00			
Nitrobenzene-d5(surr)	4165-60-0	92.5	%	1.00			
2-Fluorobiphenyl(surr)	321-60-8	89.5	%	1.00			
2,4,6-Tribromophenol(surr)	118-79-6	109	%	1.00			
p-Terphenyl-d14(surr)	1718-51-0	103	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,4,5-Tetrachlorobenzene	0.05	0.0374	74.7	0.05	0.0376	75.3	0.7	30	51.5-103	
1,2,4-Trichlorobenzene	0.05	0.0365	72.9	0.05	0.0360	72.1	1.3	30	44-100	
1,2-Diphenylhydrazine as A	0.05	0.0410	82	0.05	0.0418	83.6	1.9	30	41-127	
2,2-Oxybis (1-Chloropropan	0.05	0.0334	66.7	0.05	0.0342	68.5	2.5	30	70-130	L2
2,4,5-Trichlorophenol	0.05	0.0415	83	0.05	0.0435	87	4.8	30	41.6-124	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Method : EPA 625.1 Reporting Units : mg/L

QC Batch ID : Qb220916123 Created Date : 09/16/22 Created By : MShah

Samples in This QC Batch : 22091407.01

QC Type: LCS and LCSD										
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
2,4,6-Trichlorophenol	0.05	0.0445	88.9	0.05	0.0423	84.6	5	30	42.7-120	
2,4-Dichlorophenol	0.05	0.0376	75.2	0.05	0.0400	80.1	6.2	30	44.2-114	
2,4-Dimethylphenol	0.1	0.0490	49	0.05	0.0487	97.4	0.6	30	32-120	
2,4-Dinitrophenol	0.05	0.0446	89.3	0.05	0.0402	80.4	10.5	30	10-130	
2,4-Dinitrotoluene	0.05	0.0389	77.7	0.05	0.0405	81	4.1	30	54.2-127	
2,6-Dinitrotoluene	0.05	0.0398	79.6	0.05	0.0421	84.2	5.6	30	55.5-119	
2-Chloronaphthalene	0.05	0.0339	67.8	0.05	0.0347	69.4	2.3	24	50.6-100	
2-Chlorophenol	0.05	0.0342	68.4	0.05	0.0358	71.6	4.6	30	42-109	
2-Nitrophenol	0.05	0.0393	78.6	0.05	0.0409	81.8	4	30	38.8-120	
3- & 4-Methylphenols	0.1	0.0660	66	0.1	0.0693	69.3	4.9	30	38.7-101	
3,3-Dichlorobenzidine	0.05	0.0358	71.6	0.05	0.0377	75.4	5.2	30	48.8-126	
4,6-Dinitro-2-methylphenol	0.05	0.0480	96.1	0.05	0.0487	97.4	1.4	30	16.5-136	
4-Bromophenyl phenyl ethe	0.05	0.0407	81.4	0.05	0.0396	79.1	2.8	30	62.7-107	
4-Chloro-3-methylphenol	0.05	0.0405	81	0.05	0.0420	83.9	3.6	30	52.4-120	
4-Chlorophenyl phenyl ethe	0.05	0.0392	78.3	0.05	0.0384	76.7	1.9	30	59.2-108	
4-Nitrophenol	0.05	0.0417	83.5	0.05	0.0403	80.5	3.5	30	10-129	
Acenaphthene	0.05	0.0369	73.9	0.05	0.0384	76.7	3.9	30	51.2-101	
Acenaphthylene	0.05	0.0336	67.2	0.05	0.0351	70.3	4.3	30	46.4-102	
Anthracene	0.05	0.0380	75.9	0.05	0.0383	76.6	0.9	30	54.6-109	
Benzidine	0.05	0.0255	51	0.05	0.0252	50.4	1.1	30	10-132	
Benzo(a)anthracene	0.05	0.0404	80.8	0.05	0.0404	80.7	0	30	56.3-113	
Benzo(a)pyrene	0.05	0.0399	79.8	0.05	0.0413	82.6	3.5	30	51.7-124	
Benzo(b)fluoranthene	0.05	0.0400	79.9	0.05	0.0405	81	1.3	30	46.7-118	
Benzo(g,h,i)perylene	0.05	0.0442	88.5	0.05	0.0449	89.9	1.5	30	43.6-117	
Benzo(k)fluoranthene	0.05	0.0413	82.6	0.05	0.0400	80.1	3.2	30	49.4-116	
Bis(2-chloroethoxy) methan	0.05	0.0360	71.9	0.05	0.0372	74.5	3.4	30	49.7-112	
Bis(2-chloroethyl) ether	0.05	0.0354	70.8	0.05	0.0372	74.4	4.9	30	38.2-122	
Bis(2-ethylhexyl )phthalate	0.05	0.0426	85.2	0.05	0.0435	87.1	2.1	30	51.1-138	
Butyl benzyl phthalate	0.05	0.0448	89.6	0.05	0.0465	93.1	3.8	30	57.3-123	
Chrysene	0.05	0.0415	83	0.05	0.0419	83.9	0.9	30	62.5-104	
Dibenzo(a,h)anthracene	0.05	0.0414	82.8	0.05	0.0406	81.2	2	30	43.3-118	
Diethyl phthalate	0.05	0.0428	85.6	0.05	0.0433	86.6	1.2	30	57.7-118	
Dimethyl phthalate	0.05	0.0399	79.8	0.05	0.0403	80.5	1	30	60.6-109	
Di-n-butyl phthalate	0.05	0.0442	88.4	0.05	0.0439	87.7	0.7	30	58.8-120	
Di-n-octyl Phthalate	0.05	0.0408	81.6	0.05	0.0416	83.2	1.9	30	47.4-137	
Fluoranthene	0.05	0.0417	83.4	0.05	0.0404	80.9	3.1	30	57.9-117	
Fluorene	0.05	0.0400	80	0.05	0.0401	80.2	0.3	30	59-110	
Hexachlorobenzene	0.05	0.0393	78.7	0.05	0.0386	77.1	1.9	30	56.2-109	
Hexachlorobutadiene	0.05	0.0337	67.4	0.05	0.0326	65.2	3.3	30	36.8-100	
Hexachlorocyclopentadiene	0.05	0.00000	0	0.05	BRL	0		30	10-100	L2
Hexachloroethane	0.05	0.0342	68.4	0.05	0.0335	67	2.1	30	40-120	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis :

Method : EPA 625.1

Reporting Units : mg/L

QC Batch ID : Qb220916123 Created Date : 09/16/22

Created By : MShah

Samples in This QC Batch : 22091407.01

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Indeno(1,2,3-cd)pyrene	0.05	0.0413	82.6	0.05	0.0419	83.8	1.4	30	40.4-117	
Isophorone	0.05	0.0322	64.5	0.05	0.0335	67	3.9	30	48-102	
Naphthalene	0.05	0.0360	71.9	0.05	0.0371	74.1	3.2	30	39.2-109	
Nitrobenzene	0.05	0.0421	84.3	0.05	0.0417	83.4	1	30	48.3-120	
Nitroso-N-diethylamine	0.05	0.0346	69.1	0.05	0.0360	72	4.1	30	45.2-120	
N-Nitrosodibutylamine	0.05	0.0318	63.6	0.05	0.0314	62.8	1.3	30	46.6-100	
N-Nitrosodimethylamine	0.05	0.0260	52.1	0.05	0.0268	53.6	2.8	30	27.4-100	
N-nitroso-di-n-propylamine	0.05	0.0375	75	0.05	0.0373	74.6	0.5	30	50.1-116	
N-Nitrosodiphenylamine	0.05	0.0394	78.8	0.05	0.0400	80	1.5	30	62.9-105	
Pentachlorobenzene	0.05	0.0416	83.1	0.05	0.0439	87.7	5.4	30	57.3-110	
Pentachlorophenol	0.05	0.0461	92.2	0.05	0.0441	88.2	4.4	30	28.8-136	
Phenanthrene	0.05	0.0402	80.3	0.05	0.0399	79.8	0.6	30	56.2-105	
Phenol	0.05	0.0220	44	0.05	0.0224	44.8	1.7	30	14.6-100	
Pyrene	0.05	0.0422	84.3	0.05	0.0433	86.7	2.7	30	57.7-111	
Pyridine	0.05	0.0264	52.8	0.05	0.0267	53.3	1.2	30	20.9-100	

## QC Type: MS and MSD

QC Sample ID: 22091469.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2,4,5-Tetrachlorobenzene	BRL	0.05	0.0347	69.4						10-125	
1,2,4-Trichlorobenzene	BRL	0.05	0.0319	63.7						44-106	
1,2-Diphenylhydrazine as A	BRL	0.05	0.0428	85.7						10-144	
2,2-Oxybis (1-Chloropropan	BRL	0.05	0.0315	63						40.8-100	
2,4,5-Trichlorophenol	BRL	0.05	0.0390	77.9						10-111	
2,4,6-Trichlorophenol	BRL	0.05	0.0407	81.5						37-115	
2,4-Dichlorophenol	BRL	0.05	0.0349	69.8						39-135	
2,4-Dimethylphenol	BRL	0.1	0.0646	64.6						32-120	
2,4-Dinitrophenol	BRL	0.05	0.0389	77.9						10-120	
2,4-Dinitrotoluene	BRL	0.05	0.0420	84.1						39-136	
2,6-Dinitrotoluene	BRL	0.05	0.0440	87.9						50-128	
2-Chloronaphthalene	BRL	0.05	0.0326	65.2						60-106	
2-Chlorophenol	BRL	0.05	0.0301	60.2						23-110	
2-Nitrophenol	BRL	0.05	0.0369	73.8						29-123	
3- & 4-Methylphenols	BRL	0.1	0.0648	64.8						10-115	
3,3-Dichlorobenzidine	BRL	0.05	0.0303	60.7						10-168	
4,6-Dinitro-2-methylphenol	BRL	0.05	0.0435	87						10-128	
4-Bromophenyl phenyl ethe	BRL	0.05	0.0424	84.7						40.1-120	
4-Chloro-3-methylphenol	BRL	0.05	0.0412	82.3						34.1-124	
4-Chlorophenyl phenyl ethe	BRL	0.05	0.0377	75.5						38.8-120	

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Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis :

Method : EPA 625.1

Reporting Units : mg/L

QC Batch ID : Qb220916123 Created Date : 09/16/22

Created By : MShah

Samples in This QC Batch : 22091407.01

QC Type: MS and MSD

QC Sample ID: 22091469.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
4-Nitrophenol	BRL	0.05	0.0260	52						10-104	
Acenaphthene	BRL	0.05	0.0370	74						47-109	
Acenaphthylene	BRL	0.05	0.0344	68.8						33-116	
Anthracene	BRL	0.05	0.0382	76.4						28-120	
Benzidine	BRL	0.05	0.0167	33.4						10-127	
Benzo(a)anthracene	BRL	0.05	0.0401	80.2						33.6-126	
Benzo(a)pyrene	BRL	0.05	0.0392	78.4						31.9-139	
Benzo(b)fluoranthene	BRL	0.05	0.0383	76.6						33.4-125	
Benzo(g,h,i)perylene	BRL	0.05	0.0423	84.5						35-121	
Benzo(k)fluoranthene	BRL	0.05	0.0376	75.3						32.2-128	
Bis(2-chloroethoxy) methan	BRL	0.05	0.0363	72.6						34.9-113	
Bis(2-chloroethyl) ether	BRL	0.05	0.0362	72.5						10-145	
Bis(2-ethylhexyl )phthalate	BRL	0.05	0.0593	119						36.9-158	
Butyl benzyl phthalate	BRL	0.05	0.0502	100						47.5-131	
Chrysene	BRL	0.05	0.0400	80.1						42-115	
Dibenzo(a,h)anthracene	BRL	0.05	0.0400	79.9						38.3-121	
Diethyl phthalate	BRL	0.05	0.0446	89.2						40.6-120	
Dimethyl phthalate	BRL	0.05	0.0408	81.6						41.8-120	
Di-n-butyl phthalate	BRL	0.05	0.0471	94.3						45-120	
Di-n-octyl Phthalate	BRL	0.05	0.0503	101						34.8-146	
Fluoranthene	BRL	0.05	0.0400	80						41.2-121	
Fluorene	BRL	0.05	0.0389	77.8						36.4-120	
Hexachlorobenzene	BRL	0.05	0.0397	79.4						38.5-116	
Hexachlorobutadiene	BRL	0.05	0.0268	53.6						25-100	
Hexachlorocyclopentadiene	BRL	0.05	0.00673	13.5						10-104	
Hexachloroethane	BRL	0.05	0.0278	55.5						40-100	
Hexachlorophene	BRL	0.05	0.0309	61.9						10-131	
Indeno(1,2,3-cd)pyrene	BRL	0.05	0.0415	83						31.8-122	
Isophorone	BRL	0.05	0.0367	73.4						27.3-104	
Naphthalene	0.00220	0.05	0.0350	65.5						21-133	
Nitrobenzene	BRL	0.05	0.0438	87.6						32.2-123	
Nitroso-N-diethylamine	BRL	0.05	0.0346	69.1						29.5-111	
N-Nitrosodibutylamine	BRL	0.05	0.034	68						24.1-112	
N-Nitrosodimethylamine	BRL	0.05	0.0272	54.3						19.1-100	
N-nitroso-di-n-propylamine	BRL	0.05	0.0394	78.7						35.5-117	
N-Nitrosodiphenylamine	BRL	0.05	0.0387	77.4						10-146	
Pentachlorobenzene	BRL	0.05	0.0394	78.8						19.9-133	
Pentachlorophenol	BRL	0.05	0.0481	96.2						14-129	
Phenanthrene	0.00226	0.05	0.0398	75.2						38.6-112	
Phenol	BRL	0.05	0.0184	36.8						10-100	

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Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Method : EPA 625.1 Reporting Units : mg/L

QC Batch ID : Qb220916123 Created Date : 09/16/22 Created By : MShah

Samples in This QC Batch : 22091407.01

QC Type: MS and MSD											
QC Sample ID: 22091469.01											
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Pyrene	BRL	0.05	0.0420	84						38.1-120	
Pyridine	BRL	0.05	0.0216	43.1						10-100	

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Method : ASTM D7065-11 Reporting Units : ug/L

QC Batch ID : Qb220916128 Created Date : 09/16/22 Created By : MShah

Samples in This QC Batch : 22091407.01

Extraction : PB22091624 Prep Method : ASTM D7065-11 Prep Date : 09/16/22 08:00 Prep By : MMuteen

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Nonyl Phenol	25154-52-3	< MQL	ug/L	1.00	5		
Terphenyl-d14(surr)		103	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Nonyl Phenol	50	42.55	85.1	50	43.45	86.9	2.1	13	56-112	



# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Organochlorine Pesticides

Method : EPA 608.3

Reporting Units : ug/L

QC Batch ID : Qb220916134 Created Date : 09/16/22

Created By : KMedina

Samples in This QC Batch : 22091407.01

Extraction : PB22091616

Prep Method : EPA 608.3

Prep Date : 09/16/22 08:30 Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Alpha-chlordane	5103-71-9	< MDL	ug/L	1.00	0.01	0.002	
Dicofol	115-32-2	< MQL	ug/L	1.00	0.05		
Gamma-chlordane	5103-74-2	< MDL	ug/L	1.00	0.01	0.005	
4,4-DDD	72-54-8	< MDL	ug/L	1.00	0.01	0.006	
4,4-DDE	72-55-9	< MDL	ug/L	1.00	0.01	0.002	
4,4-DDT	50-29-3	< MDL	ug/L	1.00	0.01	0.004	
a-BHC	319-84-6	< MDL	ug/L	1.00	0.01	0.008	
Aldrin	309-00-2	< MDL	ug/L	1.00	0.01	0.003	
b-BHC	319-85-7	< MDL	ug/L	1.00	0.01	0.010	
Chlordane	57-74-9	< MQL	ug/L	1.00	0.1		
d-BHC	319-86-8	< MDL	ug/L	1.00	0.01	0.004	
Dieldrin	60-57-1	< MDL	ug/L	1.00	0.01	0.003	
Endosulfan I	959-98-8	< MDL	ug/L	1.00	0.01	0.003	
Endosulfan II	33213-65-9	< MDL	ug/L	1.00	0.01	0.004	
Endosulfan sulfate	1031-07-8	< MDL	ug/L	1.00	0.01	0.003	
Endrin	72-20-8	< MDL	ug/L	1.00	0.01	0.004	
Endrin aldehyde	7421-93-4	< MDL	ug/L	1.00	0.01	0.008	
g-BHC	58-89-9	< MDL	ug/L	1.00	0.01	0.005	
Heptachlor	76-44-8	< MDL	ug/L	1.00	0.01	0.005	
Heptachlor epoxide	1024-57-3	< MDL	ug/L	1.00	0.01	0.002	
Methoxychlor	72-43-5	< MDL	ug/L	1.00	0.01	0.005	
Mirex	2385-85-5	< MQL	ug/L	1.00	0.01		
Toxaphene	8001-35-2	< MDL	ug/L	1.00	0.1	0.1	
Tetrachloro-m-xylene(surr)	877-09-8	62	%	1.00			
Decachlorobiphenyl(surr)	2051-24-3	70	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Alpha-chlordane	0.2	0.180	90.3	0.2	0.175	87.5	3.1	23	42-132	
Gamma-chlordane	0.2	0.176	88	0.2	0.171	85.5	2.9	21	45-133	
4,4-DDD	0.2	0.161	80.5	0.2	0.154	76.8	4.4	24	40.8-141	
4,4-DDE	0.2	0.188	94.3	0.2	0.184	91.8	2.4	21	30-145	
4,4-DDT	0.2	0.398	199	0.2	0.392	196	1.4	30	34.3-134	L1
a-BHC	0.2	0.162	81.3	0.2	0.162	81.3	0.3	25	37-125	
Aldrin	0.2	0.192	96.3	0.2	0.176	88	9	23	42-129	
b-BHC	0.2	0.163	81.5	0.2	0.158	79.3	3.1	24	38.5-133	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Organochlorine Pesticides

Method : EPA 608.3

Reporting Units : ug/L

QC Batch ID : Qb220916134 Created Date : 09/16/22

Created By : KMedina

Samples in This QC Batch : 22091407.01

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
d-BHC	0.2	0.169	84.5	0.2	0.168	84.3	0.6	20	26.5-140	
Dieldrin	0.2	0.192	96	0.2	0.184	92.3	4.3	21	40.7-133	
Endosulfan I	0.2	0.168	84.3	0.2	0.164	82.3	2.7	24	45-124	
Endosulfan II	0.2	0.174	86.8	0.2	0.164	82	5.6	21	10-114	
Endosulfan sulfate	0.2	.229	115	0.2	.206	103	10.6	20	45-131	
Endrin	0.2	0.186	93	0.2	0.178	89.3	4.4	24	35.1-136	
Endrin aldehyde	0.2	0.201	101	0.2	0.200	100	0.5	33	33.9-130	
g-BHC	0.2	0.177	88.5	0.2	0.172	86	2.9	25	39-132	
Heptachlor	0.2	0.186	93.3	0.2	0.182	91	2.4	20	34.6-134	
Heptachlor epoxide	0.2	0.175	87.5	0.2	0.170	85	2.9	24	39.2-135	
Methoxychlor	0.2	0.358	179	0.2	0.362	181	1.1	24	37.7-143	LI

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Polychlorinated Biphenyls Method : EPA 608.3 Reporting Units : ug/L

QC Batch ID : QB22092117 Created Date : 09/20/22 Created By : PSunkara

Samples in This QC Batch : 22091407.01

Extraction : PB22091614 Prep Method : EPA 608.3 Prep Date : 09/16/22 08:30 Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Aroclor 1016	12674-11-2	< MDL	ug/L	1.00	0.05	0.0146	
Aroclor 1221	11104-28-2	< MDL	ug/L	1.00	0.05	0.0129	
Aroclor 1232	11141-16-5	< MDL	ug/L	1.00	0.05	0.0129	
Aroclor 1242	53469-21-9	< MDL	ug/L	1.00	0.05	0.0129	
Aroclor 1248	12672-29-6	< MDL	ug/L	1.00	0.05	0.0129	
Aroclor 1254	11097-69-1	< MDL	ug/L	1.00	0.05	0.0129	
Aroclor 1260	11096-82-5	< MDL	ug/L	1.00	0.05	0.01005	
Total PCBs		< MDL	ug/L	1.00	0.05	0.0129	
Decachlorobiphenyl(surr)	2051-24-3	53.5	%	1.00			
Tetrachloro-m-xylene(surr)	877-09-8	75.5	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Aroclor 1016	2	2.22	111	2	2.20	110	1	18	53.7-136	
Aroclor 1260	2	2.20	110	2	2.31	115	4.7	18	57.9-146	
Total PCBs	4	4.42	111	4	4.51	113	1.9	18	51.7-138	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091407

Date : 9/22/2022

Analysis : Organophosphorus Pesticides

Method : EPA 614

Reporting Units : ug/L

QC Batch ID : Qb22092244 Created Date : 09/21/22

Created By : PSunkara

Samples in This QC Batch : 22091407.01

Extraction : PB22091955 Prep Method : SW-846 3510C

Prep Date : 09/19/22 11:00 Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MDL	MDL	Qual
Chlorpyrifos	2921-88-2	< MDL	ug/L	1.00	0.1	0.04	
Demeton	8065-48-3	< MDL	ug/L	1.00	0.1	0.04	
Diazinon	333-41-5	< MDL	ug/L	1.00	0.1	0.04	
Guthion	86-50-0	< MDL	ug/L	1.00	0.1	0.04	
Malathion	121-75-5	< MDL	ug/L	1.00	0.1	0.05	
Parathion	56-38-2	< MDL	ug/L	1.00	0.1	0.06	
4-Chloro-3-Nitro-Benzene(s)		67.6	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Chlorpyrifos	0.6	0.819	137	0.6	0.8385	140	2.4	26	40-152	
Demeton	0.6	0.006	1.000	0.6	0.007	1.17	15.4	25	D-100	
Diazinon	0.6	0.925	154	0.6	0.972	162	5	28	64-123	L1
Guthion	0.6	0.515	85.8	0.6	0.512	85.3	0.6	31	31-143	
Malathion	0.6	0.774	129	0.6	0.812	135	4.8	26	34-176	
Parathion	0.6	0.4695	78.3	0.6	0.461	76.8	1.8	38	50-133	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



**Job ID :** 22091407

**Date :** 9/22/2022

**Analysis :** Chlorinated Herbicides

**Method :** EPA 615

**Reporting Units :** ug/L

**QC Batch ID :** Qb22092247 **Created Date :** 09/21/22

**Created By :** PSunkara

**Samples in This QC Batch :** 22091407.01

**Extraction :** PB22091954 **Prep Method :** EPA 615

**Prep Date :** 09/19/22 09:30 **Prep By :** Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MDL	MDL	Qual
2,4,5-TP	93-72-1	< MDL	ug/L	1.00	0.1902	0.19	
2,4-D	94-75-7	< MDL	ug/L	1.00	0.188	0.19	
DCPAA(surr)	19719-28-9	61.2	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
2,4,5-TP	4	3.778	94.5	4	4.268	107	12.2	32	35-125	
2,4-D	4	4.27	107	4	4.32	108	1.2	29	29-124	



Job ID:22091407



09/15/2022

NWDLS

AMS

**SUBCONTRACT  
ORDER****Sending Laboratory:**

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

**Subcontracted Laboratory:**

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

**Work Order: 22I2331**

Analysis	Due	Expires	Comments
Sample ID: 22I2331-02    Waste Water    Sampled: 09/13/2022 06:00			
Sub_HERB-615	09/27/2022	09/27/2022 06:00	
Analyte(s): 2,4,5-TP	2,4-D		01AG
Sub_Nonylphenol-D7065	09/27/2022	10/08/2022 06:00	
Analyte(s): Nonylphenol			
Sub_OCP-608.3	09/27/2022	09/20/2022 06:00	
Analyte(s): 4,4'-DDD Aldrin Chlordane (tech.) Dicofol Endosulfan II Endrin aldehyde Heptachlor Mirex	4,4'-DDE alpha-BHC (alpha-Hexachlorocyclohexane) cis-Chlordane (alpha-Chlordane) Dieldrin Endosulfan sulfate gamma-BHC (Lindane, gamma-Hexachlorocyclohexane) Heptachlor epoxide Toxaphene (Chlorinated Camphene)	4,4'-DDT beta-BHC (beta-Hexachlorocyclohexane) delta-BHC Endosulfan I Endrin gamma-Chlordane Methoxychlor	
Sub_OPP-614	09/27/2022	09/20/2022 06:00	
Analyte(s): Azinphos-methyl (Guthion) Diazinon	Chlorpyrifos Malathion	Demeton Parathion, ethyl	
Sub_PCB-608.3	09/27/2022	09/08/2023 06:00	
Analyte(s): Aroclor-1016 (PCB-1016) Aroclor-1242 (PCB-1242) Aroclor-1260 (PCB-1260)	Aroclor-1221 (PCB-1221) Aroclor-1248 (PCB-1248) PCBs, Total	Aroclor-1232 (PCB-1232) Aroclor-1254 (PCB-1254)	





# SUBCONTRACT ORDER (Continued)

## Work Order: 22I2331 (Continued)

Analysis	Due	Expires	Comments
<b>Sample ID: 22I2331-02 Waste Water Sampled: 09/13/2022 06:00</b>			
Sub_SVOA-625.1	09/27/2022	09/20/2022 06:00	
<i>Analyte(s):</i>			
1,2,4,5-Tetrachlorobenzene	1,2,4-Trichlorobenzene	1,2-Diphenylhydrazine	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-m	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	
2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	
2,4-Dinitrotoluene (2,4-DNT)	2,6-Dinitrotoluene (2,6-DNT)	2-Chloronaphthalene	
2-Chlorophenol	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methy	2-Nitrophenol	
3,3'-Dichlorobenzidine	3,4-Methylphenol	4-Bromophenyl phenyl ether (BDE-3)	
4-Chloro-3-methylphenol	4-Chlorophenyl phenylether	4-Nitrophenol	
Acenaphthene	Acenaphthylene	Anthracene	
Benzidine	Benzo(a)anthracene	Benzo(a)pyrene	
benzo(b&k)fluoranthene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl) ether	
Bis(2-ethylhexyl )phthalate	Butyl benzyl phthalate	Chrysene	
Dibenzo(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	
Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	
Fluorene	Hexachlorobenzene	Hexachlorobutadiene	
Hexachlorocyclopentadiene	Hexachloroethane	Hexachlorophene	
Indeno(1,2,3-cd) pyrene	Isophorone	Naphthalene	
Nitrobenzene	n-Nitrosodiethylamine	n-Nitrosodimethylamine	
n-Nitroso-di-n-butylamine	n-Nitrosodi-n-propylamine	n-Nitrosodiphenylamine	
Pentachlorobenzene	Pentachlorophenol	Phenanthrene	
Phenol, Total	Pyrene	Pyridine	

Containers Supplied:

Jason Keenling 0805  
Released By

9-15-22  
Date

[Signature]  
Received By

9-15-22 7.1  
Date  
16°C  
IR4



## Sample Condition Checklist

A&B JobID : <b>22091407</b>		Date Received : <b>09/15/2022</b>		Time Received : <b>8:05AM</b>	
Client Name : <b>NWDLS</b>					
Temperature : <b>1.6°C</b>		Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>		pH Paper ID : <b>NA</b>			
Perservative :					
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	
1.	Cooler Seal present and signed.		X		
2.	Sample(s) in a cooler.	X			
3.	If yes, ice in cooler.	X			
4.	Sample(s) received with chain-of-custody.	X			
5.	C-O-C signed and dated.	X			
6.	Sample(s) received with signed sample custody seal.		X		
7.	Sample containers arrived intact. (If No comment)	X			
8.	Matrix:    Water    Soil    Liquid    Sludge    Solid    Cassette    Tube    Bulk    Badge    Food    Other				
	Matrix: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
9.	Samples were received in appropriate container(s)	X			
10.	Sample(s) were received with Proper preservative		X		
11.	All samples were tagged or labeled.	X			
12.	Sample ID labels match C-O-C ID's.	X			
13.	Bottle count on C-O-C matches bottles found.	X			
14.	Sample volume is sufficient for analyses requested.	X			
15.	Samples were received within the hold time.	X			
16.	VOA vials completely filled.			X	
17.	Sample accepted.	X			
18.	Has client been contacted about sub-out			X	

**Comments : Include actions taken to resolve discrepancies/problem:**

Received 7 32oz glass amber unpreserved. AM 09/15/22

Received by :    Amber

Check in by/date :    Amber / 09/15/2022

ab-s005-0321

# Laboratory Analysis Report

Total Number of Pages: 12

Job ID : 22091805



10100 East Freeway, Suite 100, Houston, TX 77029 tel 713-453-6060, fax 713-453-6091, <http://www.ablabs.com>

**Client Project Name :**  
**22I2331**

**Report To :** Client Name: NWDLS P.O.#.: 22I2331  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 09/13/22  
City, State, Zip: Conroe, Texas, 77385

**A&B Labs has analyzed the following samples...**

Client Sample ID	Matrix	A&B Sample ID
22I2331-04	Waste Water	22091805.01

*ashute*

Released By: Amanda Shute

Title: Project Manager

Date: 9/27/2022



This Laboratory is NELAP ( T104704213) accredited. Effective: 04/01/2022; Expires: 3/31/2023

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 09/20/2022 08:20

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 22091805

Date: 9/27/2022

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

## Qualifier Definition

H3	Sample was received and analyzed past holding time
M2	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference





## LABORATORY TEST RESULTS

Job ID : 22091805

Date 9/27/2022

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 22I2331

Client Sample ID: 22I2331-04

Job Sample ID: 22091805.01

Date Collected: 09/13/22

Sample Matrix Waste Water

Time Collected: 07:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 624.1	Volatile Organic Compounds									
	1,1,1-Trichloroethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,1,2,2-Tetrachloroethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,1,2-Trichloroethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,1-Dichloroethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,1-Dichloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,2,4-Trichlorobenzene <sup>2</sup>	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,2-Dibromoethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,2-Dichlorobenzene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,2-Dichloroethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,2-Dichloropropane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,3-Dichlorobenzene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	1,4-Dichlorobenzene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	2-Butanone	<0.005	mg/L	1.00	0.005	0.005			09/20/22 14:00	RT
	2-chloroethylvinyl Ether	<0.006	mg/L	1.00	0.006	0.01			09/20/22 14:00	RT
	Acetone	0.00889	mg/L	1.00	0.003	0.005			09/20/22 14:00	RT
	Acetonitrile <sup>2</sup>	<0.00923	mg/L	1.00	0.00923	0.02		H3	09/20/22 14:00	RT
	Acrolein	<0.006	mg/L	1.00	0.006	0.01		H3	09/20/22 14:00	RT
	Acrylonitrile	<0.003	mg/L	1.00	0.003	0.005			09/20/22 14:00	RT
	Benzene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Bromodichloromethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Bromoform	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Bromomethane	<0.002	mg/L	1.00	0.002	0.005			09/20/22 14:00	RT
	Carbon tetrachloride	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Chlorobenzene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Chloroethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Chloroform	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Chloromethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	cis-1,3-Dichloropropene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Dibromochloromethane	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Ethylbenzene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	m- & p-Xylenes	<0.002	mg/L	1.00	0.002	0.01			09/20/22 14:00	RT
	Methylene chloride	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	MTBE	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Tetrachloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Toluene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT

ab-q212-0321



## LABORATORY TEST RESULTS

Job ID : 22091805

Date 9/27/2022

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 2212331

Client Sample ID: 2212331-04

Job Sample ID: 22091805.01

Date Collected: 09/13/22

Sample Matrix Waste Water

Time Collected: 07:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	ML	Reg Limit	Q	Date Time	Analyst
EPA 624.1	Volatile Organic Compounds									
	trans-1,2-Dichloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	trans-1,3-Dichloropropene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Trichloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	TTHMs	<0.002	mg/L	1.00	0.002	0.02			09/20/22 14:00	RT
	Vinyl Chloride	<0.001	mg/L	1.00	0.001	0.005			09/20/22 14:00	RT
	Dibromofluoromethane(surr)	104	%	1.00		70-130			09/20/22 14:00	RT
	1,2-Dichloroethane-d4(surr)	107	%	1.00		70-130			09/20/22 14:00	RT
	Toluene-d8(surr)	98.6	%	1.00		70-130			09/20/22 14:00	RT
	p-Bromofluorobenzene(surr)	105	%	1.00		70-130			09/20/22 14:00	RT

ab-q212-0321

<sup>2</sup>-Parameter not available for accreditation.



# QUALITY CONTROL CERTIFICATE



Job ID : 22091805

Date : 9/27/2022

Analysis : Volatile Organic Compounds

Method : EPA 624.1

Reporting Units : mg/L

QC Batch ID : Qb22092102 Created Date : 09/20/22

Created By : Rajeev

Samples in This QC Batch : 22091805.01

Sample Preparation : PB22092102

Prep Method : SW-846 5030C

Prep Date : 09/20/22 11:00 Prep By : Rajeev

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1-Trichloroethane	71-55-6	< MDL	mg/L	1.00	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/L	1.00	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/L	1.00	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/L	1.00	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1.00	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/L	1.00	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/L	1.00	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/L	1.00	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/L	1.00	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.005	0.001	
2-Butanone	78-93-3	< MDL	mg/L	1.00	0.005	0.005	
2-chloroethylvinyl Ether	110-75-8	< MDL	mg/L	1.00	0.01	0.006	
Acetone	67-64-1	< MDL	mg/L	1.00	0.005	0.003	
Acetonitrile	75-05-8	< MDL	mg/L	1.00	0.02	0.00923	
Acrolein	107-02-8	< MDL	mg/L	1.00	0.01	0.006	
Acrylonitrile	107-13-1	< MDL	mg/L	1.00	0.005	0.003	
Benzene	71-43-2	< MDL	mg/L	1.00	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/L	1.00	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/L	1.00	0.005	0.001	
Bromomethane	74-83-9	< MDL	mg/L	1.00	0.005	0.002	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/L	1.00	0.005	0.001	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/L	1.00	0.005	0.001	
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/L	1.00	0.005	0.001	
Dibromochloromethane	124-48-1	< MDL	mg/L	1.00	0.005	0.001	
Ethylbenzene	100-41-4	< MDL	mg/L	1.00	0.005	0.001	
m- & p-Xylenes	179601-23-1	< MDL	mg/L	1.00	0.01	0.002	
Methylene chloride	75-09-2	< MDL	mg/L	1.00	0.005	0.001	
MTBE	1634-04-4	< MDL	mg/L	1.00	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.005	0.001	
Toluene	108-88-3	< MDL	mg/L	1.00	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/L	1.00	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/L	1.00	0.005	0.001	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.005	0.001	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091805

Date : 9/27/2022

Analysis : Volatile Organic Compounds

Method : EPA 624.1

Reporting Units : mg/L

QC Batch ID : Qb22092102

Created Date : 09/20/22

Created By : Rajeev

Samples in This QC Batch : 22091805.01

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
TTHMs		< MDL	mg/L	1.00	0.02	0.002	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.005	0.001	
Dibromofluoromethane(surr)	1868-53-7	108	%	1.00			
1,2-Dichloroethane-d4(surr)	17060-07-0	103	%	1.00			
Toluene-d8(surr)	2037-26-5	97.5	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	102	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	0.04	0.0408	102	0.04	0.0387	96.8	5.3	30	82.6-123	
Acetonitrile	0.16	0.169	106	0.16	0.192	120	12.7	30	60-140	
Benzene	0.04	0.0415	104	0.04	0.0403	101	2.9	30	89.9-118	
Chlorobenzene	0.04	0.0419	105	0.04	0.0404	101	3.6	30	91.5-114	
MTBE	0.04	0.0444	111	0.04	0.0451	113	1.6	30	70.5-123	
Toluene	0.04	0.0422	106	0.04	0.0403	101	4.6	30	89.6-118	
Trichloroethylene	0.04	0.0430	108	0.04	0.0407	102	5.5	30	84.2-115	
1,1,1-Trichloroethane	0.04	0.0435	109	0.04	0.0417	104	4.2	30	83.2-127	
1,1,2,2-Tetrachloroethane	0.04	0.0407	102	0.04	0.0419	105	2.9	30	83.1-121	
1,1,2-Trichloroethane	0.04	0.0418	105	0.04	0.0422	106	1	30	82.1-122	
1,1-Dichloroethane	0.04	0.0425	106	0.04	0.0400	100	6.1	30	84.8-123	
1,2,4-Trichlorobenzene	0.04	0.0427	107	0.04	0.0429	107	0.5	30	90.8-117	
1,2-Dibromoethane	0.04	0.0404	101	0.04	0.0433	108	6.9	30	87.1-119	
1,2-Dichlorobenzene	0.04	0.0408	102	0.04	0.0398	99.5	2.5	30	91.1-115	
1,2-Dichloroethane	0.04	0.0410	103	0.04	0.0409	102	0.2	30	82.8-123	
1,2-Dichloropropane	0.04	0.0418	105	0.04	0.0404	101	3.4	30	87.9-122	
1,3-Dichlorobenzene	0.04	0.0414	104	0.04	0.0395	98.8	4.7	30	91.7-114	
1,4-Dichlorobenzene	0.04	0.0410	103	0.04	0.0397	99.3	3.2	30	91.4-115	
Acetone	0.04	0.0389	97.3	0.04	0.0452	113	15	30	58.7-137	
Acrolein	0.08	0.0691	86.4	0.08	0.0787	98.4	13	30	67.4-118	
Acrylonitrile	0.04	0.0341	85.3	0.04	0.0397	99.3	15.2	30	69-129	
Bromodichloromethane	0.04	0.0415	104	0.04	0.0403	101	2.9	30	86.3-122	
Bromoform	0.04	0.0418	105	0.04	0.0430	108	2.8	30	81.6-120	
Bromomethane	0.04	0.0447	112	0.04	0.0461	115	3.1	30	58.1-150	
Carbon tetrachloride	0.04	0.0441	110	0.04	0.0410	103	7.3	30	85.6-130	
Chloroethane	0.04	0.0458	115	0.04	0.0448	112	2.2	30	77.5-130	
Chloroform	0.04	0.0431	108	0.04	0.0412	103	4.5	30	85.4-121	
Chloromethane	0.04	0.0414	104	0.04	0.0398	99.5	3.9	30	71.4-131	
cis-1,3-Dichloropropene	0.04	0.0412	103	0.04	0.0404	101	2	30	89.6-118	
Dibromochloromethane	0.04	0.0426	107	0.04	0.0418	105	1.9	30	83.8-118	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



Job ID : 22091805

Date : 9/27/2022

Analysis : Volatile Organic Compounds

Method : EPA 624.1

Reporting Units : mg/L

QC Batch ID : Qb22092102 Created Date : 09/20/22

Created By : Rajeev

Samples in This QC Batch : 22091805.01

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Ethylbenzene	0.04	0.0414	104	0.04	0.0396	99	4.4	30	91.1-115	
m- & p-Xylenes	0.08	0.0835	104	0.08	0.0794	99.3	5	30	90.6-117	
Methylene chloride	0.04	0.0407	102	0.04	0.0396	99	2.7	28	60-140	
Tetrachloroethylene	0.04	0.0411	103	0.04	0.0396	99	3.7	30	70-130	
trans-1,2-Dichloroethylene	0.04	0.0418	105	0.04	0.0401	100	4.2	30	85.3-123	
trans-1,3-Dichloropropene	0.04	0.0416	104	0.04	0.0415	104	0.2	30	84.7-119	
Vinyl Chloride	0.04	0.0379	94.8	0.04	0.0383	95.8	1	30	78.5-121	
2-chloroethylvinyl Ether	0.08	0.0820	103	0.08	0.0940	118	13.6	30	32.6-169	
2-Butanone	0.04	0.0395	98.8	0.04	0.0451	113	13.2	30	61.2-133	
TTHMs	0.16	0.169	106	0.16	0.1663	104	1.6	30	60-140	

## QC Type: MS and MSD

QC Sample ID: 22091805.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	0.04	0.0404	101						74.5-129	
2-chloroethylvinyl Ether	BRL	0.08	BRL							10-239	M2
Acetonitrile	BRL	0.16	0.206	129						60-140	
Benzene	BRL	0.04	0.0401	100						88.4-143	
Chlorobenzene	BRL	0.04	0.0402	101						88-112	
MTBE	BRL	0.04	0.0472	118						74.6-145	
Toluene	BRL	0.04	0.0396	99						47-150	
Trichloroethylene	BRL	0.04	0.0398	99.5						78.8-117	
1,1,1-Trichloroethane	BRL	0.04	0.0393	98.3						74.1-132	
1,1,2,2-Tetrachloroethane	BRL	0.04	0.0459	115						92.5-151	
1,1,2-Trichloroethane	BRL	0.04	0.0443	111						83.1-143	
1,1-Dichloroethane	BRL	0.04	0.0386	96.5						74.6-127	
1,2,4-Trichlorobenzene	BRL	0.04	0.0403	101						60-140	
1,2-Dibromoethane	BRL	0.04	0.0458	115						90-133	
1,2-Dichlorobenzene	BRL	0.04	0.0395	98.8						88.7-115	
1,2-Dichloroethane	BRL	0.04	0.0433	108						59-155	
1,2-Dichloropropane	BRL	0.04	0.0400	100						84.1-128	
1,3-Dichlorobenzene	BRL	0.04	0.0385	96.3						84.5-114	
1,4-Dichlorobenzene	BRL	0.04	0.0384	96						83.6-115	
Acetone	0.00889	0.04	0.0609	130						10-228	
Acrolein	BRL	0.08	0.0825	103						40-160	
Acrylonitrile	BRL	0.04	0.0468	117						40-160	
Bromodichloromethane	BRL	0.04	0.0412	103						79.2-143	
Bromoform	BRL	0.04	0.0470	118						67.2-167	
Bromomethane	BRL	0.04	0.0498	125						10-242	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 22091805

Date : 9/27/2022

Analysis : Volatile Organic Compounds

Method : EPA 624.1

Reporting Units : mg/L

QC Batch ID : Qb22092102 Created Date : 09/20/22

Created By : Rajeev

Samples in This QC Batch : 22091805.01

QC Type: MS and MSD

QC Sample ID: 22091805.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Carbon tetrachloride	BRL	0.04	0.0463	116						78.7-137	
Chloroethane	BRL	0.04	0.0458	115						68.3-134	
Chloroform	BRL	0.04	0.0406	102						69.2-138	
Chloromethane	BRL	0.04	0.0380	95						10-273	
cis-1,3-Dichloropropene	BRL	0.04	0.0409	102						76.9-129	
Dibromochloromethane	BRL	0.04	0.0438	110						65.1-149	
Ethylbenzene	BRL	0.04	0.0388	97						64.3-133	
m- & p-Xylenes	BRL	0.08	0.0775	96.9						10-182	
Methylene chloride	BRL	0.04	0.0386	96.5						25.1-195	
Tetrachloroethylene	BRL	0.04	0.0374	93.5						64-138	
trans-1,2-Dichloroethylene	BRL	0.04	0.0384	96						79.6-126	
trans-1,3-Dichloropropene	BRL	0.04	0.0422	106						76.2-134	
Vinyl Chloride	BRL	0.04	0.0366	91.5						54.7-139	
2-Butanone	BRL	0.04	0.0536	134						39.5-193	
TTHMs	BRL	0.16	0.1726	108						60-140	

ab-q213-0321

Refer to the Definition page for terms.



Job ID:22091805



08/20/2022

NWDLS

AMS

**SUBCONTRACT  
ORDER****Sending Laboratory:**

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

**Receiving Laboratory:**

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

**Work Order: 22I2331**

Analysis	Due	Expires	Comments
[REDACTED]			
[REDACTED]			
Analyte(s): 2,4,5-TP	[REDACTED] 08/27/2022 06:00		
[REDACTED]			
Analyte(s): Nonylphenol	[REDACTED] 09/06/2022 06:00		
[REDACTED]			
Analyte(s): 4,4'-DDD Aldrin Chlordane (tech.) Dicofol Endosulfan II Endrin aldehyde Heptachlor Mirex	4,4'-DDE alpha-BHC (alpha-Hexachlorocyclohexane) cis-Chlordane (alpha-Chlordane) Dieldrin Endosulfan sulfate gamma-BHC (Lindane, gamma-Hexachlorocyclohexane) Heptachlor epoxide Toxaphene (Chlorinated Camphene)	4,4'-DDT beta-BHC (beta-Hexachlorocyclohexane) delta-BHC Endosulfan I Endrin gamma-Chlordane Methoxychlor	
[REDACTED]			
Analyte(s): Azinphos-methyl (Guthion) Diazinon	Chlorpyrifos Malathion	Demeton Parathion, ethyl	
[REDACTED]			
Analyte(s): Aroclor-1016 (PCB-1016) Aroclor-1242 (PCB-1242) Aroclor-1260 (PCB-1260)	Aroclor-1221 (PCB-1221) Aroclor-1248 (PCB-1248) PCBs, Total	Aroclor-1232 (PCB-1232) Aroclor-1254 (PCB-1254)	





# SUBCONTRACT ORDER (Continued)

## Work Order: 22I2331 (Continued)

Analysis	Due	Expires	Comments
<b>Analyte(s):</b>			
1,2,4,5-Tetrachlorobenzene	1,2,4-Trichlorobenzene	1,2-Diphenylhydrazine	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-m	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	
2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	
2,4-Dinitrotoluene (2,4-DNT)	2,6-Dinitrotoluene (2,6-DNT)	2-Chloronaphthalene	
2-Chlorophenol	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methy	2-Nitrophenol	
3,3'-Dichlorobenzidine	3,4-Methylphenol	4-Bromophenyl phenyl ether (BDE-3)	
4-Chloro-3-methylphenol	4-Chlorophenyl phenylether	4-Nitrophenol	
Acenaphthene	Acenaphthylene	Anthracene	
Benzidine	Benzo(a)anthracene	Benzo(a)pyrene	
benzo(b&k)fluoranthene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl) ether	
Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Chrysene	
Dibenzo(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	
Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	
Fluorene	Hexachlorobenzene	Hexachlorobutadiene	
Hexachlorocyclopentadiene	Hexachloroethane	Hexachlorophene	
Indeno(1,2,3-cd) pyrene	Isophorone	Naphthalene	
Nitrobenzene	n-Nitrosodiethylamine	n-Nitrosodimethylamine	
n-Nitroso-di-n-butylamine	n-Nitrosodi-n-propylamine	n-Nitrosodiphenylamine	
Pentachlorobenzene	Pentachlorophenol	Phenanthrene	
Phenol, Total	Pyrene	Pyridine	

Containers Supplied:

Sample ID: 22I2331-04 Waste Water Sampled: 09/13/2022 07:00

Sub_VOA-624	09/27/2022 09/27/2022 07:00	01AF
<b>Analyte(s):</b>		
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
1,1-Dichloroethane	1,1-Dichloroethylene	1,2,4-Trichlorobenzene
1,2-Dibromoethane (EDB, Ethylene dibromide)	1,2-Dichlorobenzene (o-Dichlorobenzene)	1,2-Dichloroethane (Ethylene dichloride)
1,2-Dichloropropane	1,3-Dichlorobenzene (m-Dichlorobenzene)	1,4-Dichlorobenzene (p-Dichlorobenzene)
2-Butanone (Methyl ethyl ketone, MEK)	2-Chloroethyl vinyl ether	Acetone
Acetonitrile	Acrolein (Propenal)	Acrylonitrile
Benzene	Bromodichloromethane	Bromoform
Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane
Chloroethane (Ethyl chloride)	Chloroform	cis-1,3-Dichloropropene
Ethylbenzene	m+p-xylene	Methyl bromide (Bromomethane)
Methyl chloride (Chloromethane)	Methyl tert-butyl ether (MTBE)	Methylene chloride (Dichloromethane)
Tetrachloroethylene (Perchloroethylene)	Toluene	Total Trihalomethanes (TTHMs)
trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Trichloroethene (Trichloroethylene)
Vinyl chloride (Chloroethene)		

Containers Supplied:





**SUBCONTRACT  
ORDER**  
(Continued)

Released By Jason Kessler 0820 Date 4-20-22

Received By [Signature] Date 9/20/22

3:30  
Jocelyn  
PM



## Sample Condition Checklist

A&B JobID : <b>22091805</b>		Date Received : <b>09/20/2022</b>		Time Received : <b>8:20AM</b>								
Client Name : <b>NWDLS</b>												
Temperature : <b>3.3°C</b>		Sample pH : <b>NA</b>										
Thermometer ID : <b>IR4</b>		pH Paper ID : <b>NA</b>										
Perservative :												
	<b>Check Points</b>				<b>Yes</b>	<b>No</b>	<b>N/A</b>					
1.	Cooler Seal present and signed.					X						
2.	Sample(s) in a cooler.				X							
3.	If yes, ice in cooler.				X							
4.	Sample(s) received with chain-of-custody.				X							
5.	C-O-C signed and dated.				X							
6.	Sample(s) received with signed sample custody seal.					X						
7.	Sample containers arrived intact. (If No comment)				X							
8.	Matrix:	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Samples were received in appropriate container(s)				X							
10.	Sample(s) were received with Proper preservative				X							
11.	All samples were tagged or labeled.				X							
12.	Sample ID labels match C-O-C ID's.				X							
13.	Bottle count on C-O-C matches bottles found.				X							
14.	Sample volume is sufficient for analyses requested.				X							
15.	Samples were received within the hold time.				X							
16.	VOA vials completely filled.				X							
17.	Sample accepted.				X							
18.	Has client been contacted about sub-out											X

**Comments : Include actions taken to resolve discrepancies/problem:**

Received by : Amber

Check in by/date : Amber / 09/20/2022

ab-s005-0321

**ATTACHMENT 3**  
**PROCESS FLOW DIAGRAM**





**ATTACHMENT 4**  
**WWTF SITE DRAWING & SERVICE AREA MAP**



16 U.S.C. DEDICATED BY  
TIMBER LAND SECTION FIVE  
VOL. 211, P. 103 N.C. M.R. -

159.04°

SITE BEWENMARK 0  
N=39874.04  
E=46086.83

198

55 ROAD

0.57



NAG 11' 22"E 159.27

150' BUFFER ZONE —

RESTRICTED RESERVE - B  
7.303 ACRES  
RESTRICTED TO WASTEWATER  
TREATMENT PLANT)

N31°27'10"W 300.00'

10 U.S.C.

RESTRICTED RESERVE - A  
3.426 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)

## EXISTING SITE PLAN 2.25 MGD PHASE

COMPENSATING STORAGE SUMMAR  
TOTAL VOLUME OF MATERIAL TO  
BE PLACED IN FLOOD PLAIN =  
473 CUBIC YARDS  
TOTAL VOLUME COMPENSATING  
STORAGE = 487 CUBIC YARDS

DRAINAGE ELEMENT  
A. 979 ACRES  
C. C. F. NO. E030986  
F. C. NO. 171-23-247  
O. P. R. O. R. P. \_\_\_\_\_

DRAINAGE EASEMENT  
4.979 ACRES  
C.C.F. NO. E030986  
F.C. NO. 17-23-241  
D.P.R.G.R.P.

1560°02'34"E 90.47'

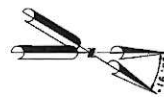
515°14'34"E 229.1

H.C.F.C.D. (K 116-00-0)

VOGLER & SPINER  
ATTORNEYS AT LAW

**WST**  
VOIGT & SPENGLER  
INCORPORATED  
777 East Hennepin Avenue, Suite 500  
Minneapolis, MN 55415  
612-338-6000  
FAX 612-338-6001  
www.vstinc.com  
2000 W. Hennepin Ave. Suite 500  
Minneapolis, MN 55415

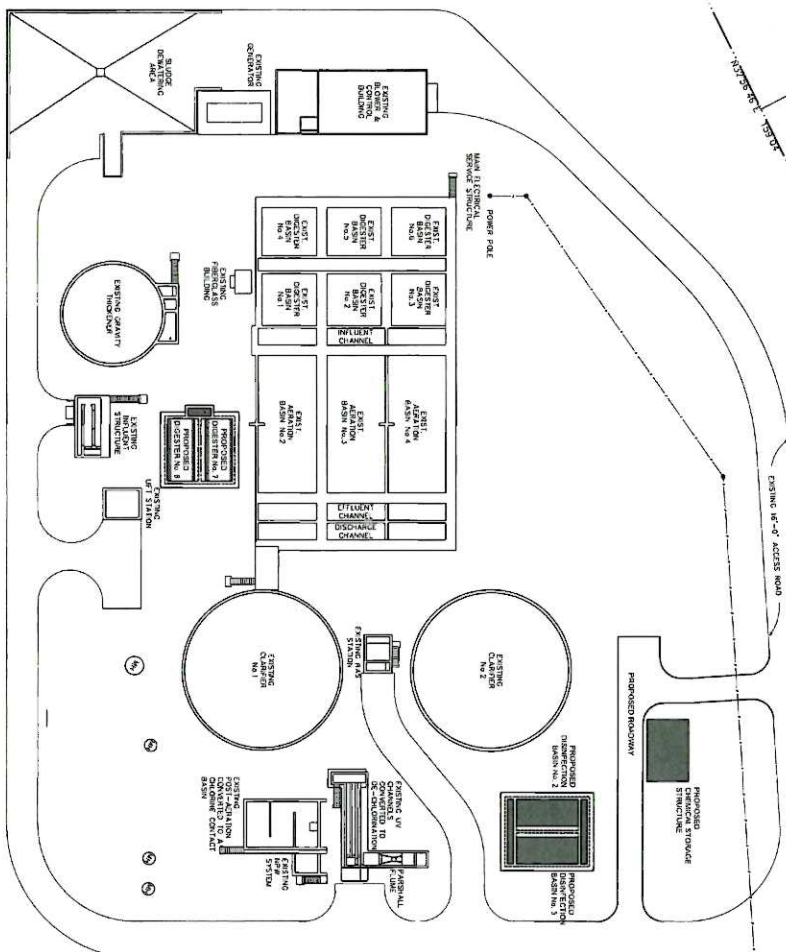
30 15 0 30  
SCALE: 1"=30'



TIMBER LANE SECTION FIVE  
VOL. 21 PG. 103 H.C.M.R.

RESTRICTED RESERVE - C  
0.614 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)

RESTRICTED RESERVE - B  
7.363 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)



RESTRICTED RESERVE - A  
3.426 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)

## FINAL SITE PLAN 2.62 MGD PHASE

DRAINAGE EASEMENT  
4.979 ACRES  
C.C.F. NO E030986  
F.C. NO. 171-23-2474  
O.P.R.O.P.

DRAINAGE EASEMENT  
4.979 ACRES  
C.C.F. NO. E030986  
F.C. NO. 171-23-247  
D.P.R.O.R.P.

MULTZ GULLY H.C.F.C.D. (K 116-00-00)

## VERIFICATION OF PRIVATE UTILITY LINES

Don't let your next job interview pass you by as another "figuring out the company" experience.

1. The first method is to use a standard deviation of 1.0. This is the most common method, but it is not always the best. It is only valid if the data is normally distributed. If the data is skewed, then the standard deviation will be biased.

1000

APP.	REVISIONS	DATE
△		
△		
△		

**VST**  
VOGLER & SPENCER  
ENGINEERS

272 Bacon & Orange Streets, Suite 120  
Providence, Rhode Island 02903  
781-462-6842  
www.vst-engineers.com  
E-mail: P. L. Vogler@vst-engineers.com

TIMBER LANE  
UTILITY DISTRICT  
WASTEWATER TREATMENT FACILITY  
EXPANSION TO 2.625 MGD

## SITE PLAN

CITY OF HOUSTON  
HOUSTON PUBLIC WORKS

**CITY OF HOUSTON**  
HOUSTON PUBLIC WORKS

HOUSTON PUBLIC WORKS

STOCK MARKET

STUDY OF THE EFFECTS OF THE 1997-1998 EL NIÑO ON THE  
WATER RESOURCES OF THE YAMALO-NENETS Autonomous Okrug

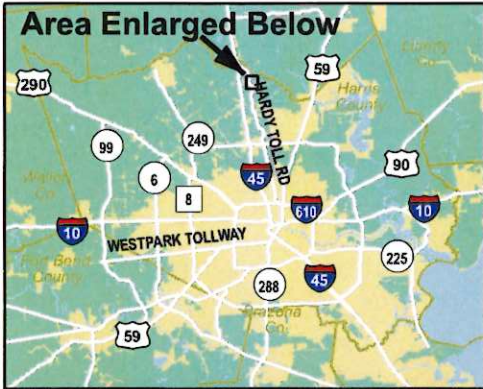
DATE	
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SHEET No. 1 of 1 DRAWING

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**Legend**

- WWTF Boundary
- WWTF Service Area

**WWTF Service Area**



**ATTACHMENT 5**

**CHECK**

**ATTACHMENT 6**  
**WWTF UNIT DIMENSIONS**

**EXISTING/INTERIM I PHASE**

Activated Sludge - Complete Mix w/ Combined Biological Nitrification	(3) 30.0 ft. x 70.0 ft. x 15.2 ft. SWD (3) 90.0 ft. x 10.0 ft. x 15.2 ft. SWD
Secondary Clarification	(1) 75.0 ft. Dia. x 9.71 ft. SWD (1) 75.0 ft Dia x 12.0' SWD
UV Disinfection	(3) 35.17 ft. x 1.67 ft x 8.38' deep
Gravity Thickener	(1) 48.0 ft. Dia. x 12.0 ft. SWD
Aerobic Digestion - Air	(6) 25.0 ft. x 30.0 ft. x 15.5 ft. SWD

**FINAL PHASE**

Activated Sludge - Complete Mix w/ Combined Biological Nitrification	(3) 30.0 ft. x 70.0 ft. x 15.2 ft. SWD (3) 90.0 ft. x 10.0 ft. x 15.2 ft. SWD
Secondary Clarification	(1) 75.0 ft. Dia. x 10.29 ft. SWD (1) 75.0 ft Dia x 14.08 ft. SWD
Disinfection	(2) 15 ft. x 36 ft. x 12 ft. SWD (1) 21.5 ft.x 32 ft. x 14 ft. SWD
Gravity Thickener	(1) 48.0 ft. Dia. x 13.0 ft. SWD
Aerobic Digestion - Air	(6) 30 ft. x 25 ft. x 15.5 ft. SWD (2) 15 ft. x 30 ft. x 15.5 ft. SWD



**ATTACHMENT 7**  
**BUFFER ZONE MAP**

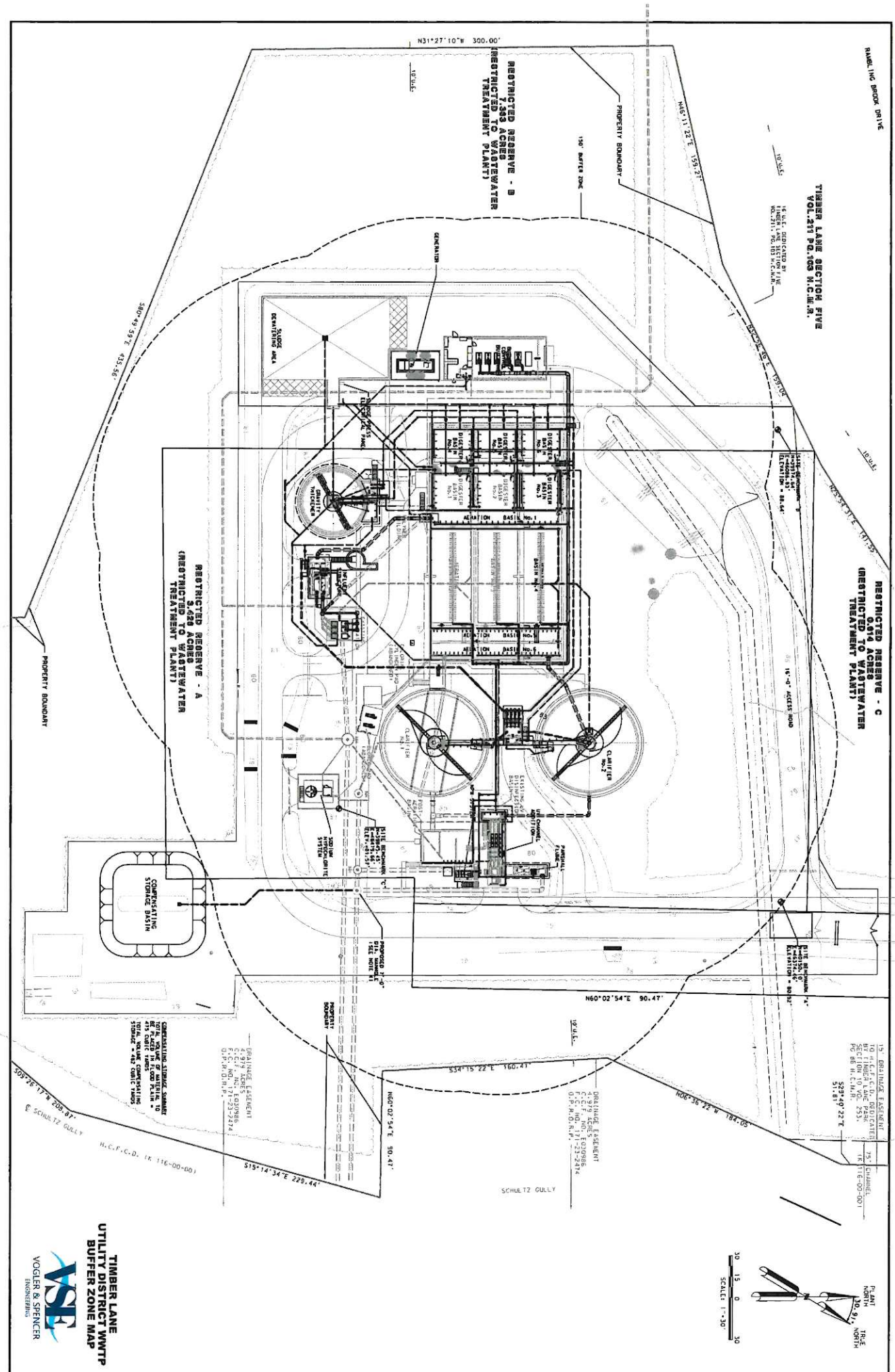
SABELING BROOK DRIVE

TIMBER LANE SECTION FIVE  
VOL. 211 PG. 105 N.C.M.N.

RESTRICTED RESERVE - C  
0.614 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)

RESTRICTED RESERVE - B  
7.383 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)

RESTRICTED RESERVE - A  
3.428 ACRES  
(RESTRICTED TO WASTEWATER  
TREATMENT PLANT)



**VSE**  
VOIGER & SPENCER  
ENGINEERS

TIMBER LANE  
UTILITY DISTRICT WWP  
BUFFER ZONE MAP

**ATTACHMENT 8**  
**SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN**

**WWTF EXPANSION TO 2.25 MGD TO SERVE TIMBERLANE UTILITY DISTRICT  
SLUDGE MANAGEMENT PLAN (INTERIM I PHASE)**

TPDES PERMIT NO.: 11142-002

VEI PROJECT NO.: 05200-501-11-PMT

DESIGN ENGINEER: EVAN COOK, P.E.

LAST REVISION: OCTOBER 15, 2003

F:\05200\501-11 Expansion to 2.25 MGD 2006\ENG\FINAL\WWTP Design 6.xls]DESIGN SUMMARY

**Design Basis**

TCEQ Volumetric Loading Criteria: (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	20
TCEQ Minimum Sludge Retention Time (days)	15
Average Daily Flow Rate (MGD)	1.50
Influent BOD <sub>5</sub> Concentration (mg/L)	200
Effluent BOD <sub>5</sub> Concentration (mg/L)	7
Net BOD <sub>5</sub> Removal (mg/L)	193
MLSS Operating Range (mg/L)	2,500
Waste Activated Sludge Concentration (mg/L)	8,000
Thickened Sludge Concentration (mg/L)	30,000
Thickened Sludge Specific Gravity	1.01

<b>Sludge Generation</b>	<b>100% Flow</b>	<b>75% Flow</b>	<b>50% Flow</b>	<b>25% Flow</b>
BOD <sub>5</sub> Removal (lb/day)	2,414	1,811	1,207	604
FSS Removal (lb/day)	689	517	345	172
Dry Wastage Rate (lb/day)	1,981	1,486	990	495
Volatile Solids Reduction (lb/day)	296	222	148	74
Dry Sludge Production (lb/day)	1,685	1,264	842	421
Wet Sludge Production (lb/day)	56,156	42,117	28,078	14,039
Wet Sludge Flow Rate (gal/day)	6,667	5,000	3,333	1,667

**Sludge Treatment**

Sludge is wasted from the reaeration basin to the aerobic digesters. Air aerobic digestion is used to reduce the quantity of volatile suspended solids in the waste activated sludge by approximately 26 percent under winter conditions. Two 25 ft. x 30 ft. x 15.5 ft. digesters are utilized for a total digester volume of 23,250 ft<sup>3</sup>. Supernatant liquor from the digester is returned to the aeration tanks. Thickened sludge is stored in the digesters prior to off-site transportation to a permitted land application facility.

**Aerobic Digesters**

Total Digester Volume (ft <sup>3</sup> )	23,250
Digester Solids Concentration (mg/L)	15,000
Solids Retention Time (days)	16
Volumetric Loading Rate (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	9

<b>Sludge Disposal</b>	<b>100% Flow</b>	<b>75% Flow</b>	<b>50% Flow</b>	<b>25% Flow</b>
Days Between Sludge Removal	26	35	52	104

Thickened sludge will be stored in the digesters prior to off-site transportation to a permitted land application facility operated by Envirogenics.



**WWTF EXPANSION TO 2.25 MGD TO SERVE TIMBERLANE UTILITY DISTRICT  
SLUDGE MANAGEMENT PLAN (INTERIM II PHASE)**

TPDES PERMIT NO.: 11142-002

VEI PROJECT NO.: 05200-501-11-PMT

DESIGN ENGINEER: EVAN COOK, P.E.

LAST REVISION: OCTOBER 15, 2003

F:\05200\501-11 Expansion to 2.25 MGD 2006\ENG\FINAL\WWTP Design 6.xls\DESIGN SUMMARY

**Design Basis**

TCEQ Volumetric Loading Criteria: (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	20
TCEQ Minimum Sludge Retention Time (days)	15
Average Daily Flow Rate (MGD)	2.250
Influent BOD <sub>5</sub> Concentration (mg/L)	200
Effluent BOD <sub>5</sub> Concentration (mg/L)	7
Net BOD <sub>5</sub> Removal (mg/L)	193
MLSS Operating Range (mg/L)	2,500
Waste Activated Sludge Concentration (mg/L)	8,000
Thickened Sludge Concentration (mg/L)	30,000
Thickened Sludge Specific Gravity	1.01

<b>Sludge Generation</b>	<b>100% Flow</b>	<b>75% Flow</b>	<b>50% Flow</b>	<b>25% Flow</b>
BOD <sub>5</sub> Removal (lb/day)	3,622	2,716	1,811	905
FSS Removal (lb/day)	1,033	775	517	258
Dry Wastage Rate (lb/day)	2,971	2,228	1,485	743
Volatile Solids Reduction (lb/day)	695	521	348	174
Dry Sludge Production (lb/day)	2,276	1,707	1,138	569
Wet Sludge Production (lb/day)	75,851	56,888	37,926	18,963
Wet Sludge Flow Rate (gal/day)	9,005	6,754	4,502	2,251

**Sludge Treatment**

Sludge will be wasted from the underflow of the secondary clarifiers to the aerobic digesters. Air aerobic digestion will be used to reduce the quantity of volatile suspended solids in the waste activated sludge by approximately 41 percent under winter conditions. Six 25 ft. x 30 ft. x 15.5 ft. digesters will be utilized for a total digester volume of 78,120 ft<sup>3</sup>. Sludge will flow from the digesters to the thickener and be continuously recycled back to the digesters. Supernatant liquor from the thickener will be aerated and a portion recycled to the thickener to control odors with the remainder returned to the aeration tanks. Thickened sludge will be stored in the digesters prior to off-site transportation to a permitted land application facility.

**Aerobic Digesters**

Total Digester Volume (ft <sup>3</sup> )	78,120
Digester Solids Concentration (mg/L)	15,000
Solids Retention Time (days)	46
Volumetric Loading Rate (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	21

<b>Sludge Disposal</b>	<b>100% Flow</b>	<b>75% Flow</b>	<b>50% Flow</b>	<b>25% Flow</b>
Days Between Sludge Removal	65	87	130	260

Thickened sludge will be stored in the digesters prior to off-site transportation to a permitted land application facility operated by Envirogenics.

**WWTF EXPANSION TO 2.25 MGD TO SERVE TIMBERLANE UTILITY DISTRICT  
SLUDGE MANAGEMENT PLAN (FINAL PHASE)**

TPDES PERMIT NO.: 11142-002

VEI PROJECT NO.: 05200-501-11-PMT

DESIGN ENGINEER: EVAN COOK, P.E.

LAST REVISION: OCTOBER 15, 2003

F:\05200\501-11 Expansion to 2.25 MGD 2006\ENG\FINAL\WWTP Design 6.xls]DESIGN SUMMARY

**Design Basis**

TCEQ Volumetric Loading Criteria: (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	20
TCEQ Minimum Sludge Retention Time (days)	15
Average Daily Flow Rate (MGD)	2.620
Influent BOD <sub>5</sub> Concentration (mg/L)	200
Effluent BOD <sub>5</sub> Concentration (mg/L)	7
Net BOD <sub>5</sub> Removal (mg/L)	193
MLSS Operating Range (mg/L)	2,500
Waste Activated Sludge Concentration (mg/L)	8,000
Thickened Sludge Concentration (mg/L)	30,000
Thickened Sludge Specific Gravity	1.01

<b>Sludge Generation</b>	<b>100% Flow</b>	<b>75% Flow</b>	<b>50% Flow</b>	<b>25% Flow</b>
BOD <sub>5</sub> Removal (lb/day)	4,217	3,163	2,109	1,054
FSS Removal (lb/day)	1,202	902	601	301
Dry Wastage Rate (lb/day)	3,458	2,594	1,729	865
Volatile Solids Reduction (lb/day)	772	579	386	193
Dry Sludge Production (lb/day)	2,686	2,015	1,343	672
Wet Sludge Production (lb/day)	89,549	67,162	44,775	22,387
Wet Sludge Flow Rate (gal/day)	10,631	7,973	5,316	2,658

**Sludge Treatment**

Sludge will be wasted from the underflow of the secondary clarifiers to the aerobic digesters. Air aerobic digestion will be used to reduce the quantity of volatile suspended solids in the waste activated sludge by approximately 39 percent under winter conditions. Six 25 ft. x 30 ft. x 15.5 ft. digesters will be utilized for a total digester volume of 78,120 ft<sup>3</sup>. Sludge will flow from the digesters to the thickener and be continuously recycled back to the digesters. Supernatant liquor from the thickener will be aerated and a portion recycled to the thickener to control odors with the remainder returned to the aeration tanks. Thickened sludge will be stored in the digesters prior to off-site transportation to a permitted land application facility.

**Aerobic Digesters**

Total Digester Volume (ft <sup>3</sup> )	78,120
Digester Solids Concentration (mg/L)	15,000
Solids Retention Time (days)	38
Volumetric Loading Rate (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	18

<b>Sludge Disposal</b>	<b>100% Flow</b>	<b>75% Flow</b>	<b>50% Flow</b>	<b>25% Flow</b>
Days Between Sludge Removal	55	73	110	220

Thickened sludge will be stored in the digesters prior to off-site transportation to a permitted land application facility operated by Envirogenics.



**ATTACHMENT 9**  
**SLUDGE DISPOSAL**



We at K-3 Resources Operate our own fleet of TCEQ permitted Sludge-Hauling Commercial Vehicles. We also are the responsible party for our own high capacity, Lime-Stabilization and Land application facilities, listed below.

Sludge Haulers' permit: 22430

Lime Stabilization Permits: WQ00038930000, WQ000453800

Land application sites: WQ000445400, WQ000451800, WQ000444500, WQ000444800, WQ000445000, WQ000522200, WQ000524800

We are prepared and willing to pick up, process and land apply sludge from domestic wastewater treatment plants such as Timberlane.

A handwritten signature in blue ink that reads 'Renee Tom'.

10/27/2023

Renee Tom

K-3 Resources, LP

dba K-3BMI



## 2023 Disposal Site Information

Name	Contact	Type
WQ0004445000 Carl Miller Farms 37419 FM 529 RD Pattision, TX 77423	Renee Tom 281-375-5778	Waste Water Water Treatment
WQ0004448000 Carl Miller Farms 4 .7 miles South Southwest of the Intersection of Adams Flat RD and FM 529	Renee Tom 281-375-5778	Waste Water Water Treatment
WQ0004450000 Carl Miller Farms 710084 1.4 Miles West of the Intersection of FM 529 and FM 362	Renee Tom 281-375-5778	Waste Water Water Treatment
WQ0005248000 Carl Miller Farm South Located at the West Side of FM 362 1.3 MI South of the INTX of FM 362 and FM 529 North	Renee Tom 281-375-5778	Waste Water Water Treatment
WQ0005222000 Ortega Ranch South East Corner of FM 529 and Adams Flat RD	Renee Tom 281-375-5778	Waste Water Water Treatment
WQ0004454000 Jeffries Ranch Approx 2 MI S of Monaville TX at INTX of FM 529 & FM 359 in Waller CO	Renee Tom 281-375-5778	Waste Water Water Treatment
WQ0004518000 El Celoso Ranch AT INTX SH 529 and SH 362	Renee Tom 281-375-5778	Waste Water Water Treatment Domestic Septic
WQ0004538000 Waller Lime Stabilization Facility 9458 FM 362 RD Pattison TX 77423	Renee Tom 281-375-5778	Waste Water Water Treatment Domestic Septic

**ATTACHMENT 10**

**NEARBY WWTFs**







**ATTACHMENT 11**  
**ORGANIC LOADING**

Timberlane Central - Non Potable - Raw Sampler	10/02/2022 06:00:00	Carbonaceous BOD (CBOD)	216	mg/L	FF	216.00
Timberlane Central - Non Potable - Raw Sampler	10/04/2022 06:00:00	Carbonaceous BOD (CBOD)	145	mg/L	FF	145.00
Timberlane Central - Non Potable - Raw Sampler	10/06/2022 05:00:00	Carbonaceous BOD (CBOD)	171	mg/L	FF	171.00
Timberlane Central - Non Potable - Raw Sampler	10/08/2022 06:00:00	Carbonaceous BOD (CBOD)	275	mg/L	FF	275.00
Timberlane Central - Non Potable - Raw Sampler	10/10/2022 06:00:00	Carbonaceous BOD (CBOD)	204	mg/L	FF	204.00
Timberlane Central - Non Potable - Raw Sampler	10/12/2022 06:00:00	Carbonaceous BOD (CBOD)	166	mg/L	FF	166.00
Timberlane Central - Non Potable - Raw Sampler	10/14/2022 05:00:00	Carbonaceous BOD (CBOD)	154	mg/L	FF	154.00
Timberlane Central - Non Potable - Raw Sampler	10/16/2022 06:00:00	Carbonaceous BOD (CBOD)	117	mg/L	FF	117.00
Timberlane Central - Non Potable - Raw Sampler	10/18/2022 05:00:00	Carbonaceous BOD (CBOD)	197	mg/L	FF	197.00
Timberlane Central - Non Potable - Raw Sampler	10/20/2022 05:00:00	Carbonaceous BOD (CBOD)	147	mg/L	FF	147.00
Timberlane Central - Non Potable - Raw Sampler	10/22/2022 05:00:00	Carbonaceous BOD (CBOD)	151	mg/L	FF	151.00
Timberlane Central - Non Potable - Raw Sampler	10/24/2022 05:00:00	Carbonaceous BOD (CBOD)	205	mg/L	FF	205.00
Timberlane Central - Non Potable - Raw Sampler	10/26/2022 06:00:00	Carbonaceous BOD (CBOD)	168	mg/L	FF	168.00
Timberlane Central - Non Potable - Raw Sampler	10/28/2022 05:00:00	Carbonaceous BOD (CBOD)	166	mg/L	FF	166.00
Timberlane Central - Non Potable - Raw Sampler	10/30/2022 05:00:00	Carbonaceous BOD (CBOD)	153	mg/L	FF	153.00
Timberlane Central - Non Potable - Raw Sampler	11/01/2022 06:00:00	Carbonaceous BOD (CBOD)	146	mg/L	FF	146.00
Timberlane Central - Non Potable - Raw Sampler	11/03/2022 05:00:00	Carbonaceous BOD (CBOD)	307	mg/L	FF	307.00
Timberlane Central - Non Potable - Raw Sampler	11/05/2022 05:00:00	Carbonaceous BOD (CBOD)	167	mg/L	FF	167.00
Timberlane Central - Non Potable - Raw Sampler	11/07/2022 05:00:00	Carbonaceous BOD (CBOD)	216	mg/L	FF	216.00
Timberlane Central - Non Potable - Raw Sampler	11/09/2022 05:00:00	Carbonaceous BOD (CBOD)	143	mg/L	FF	143.00
Timberlane Central - Non Potable - Raw Sampler	11/11/2022 05:00:00	Carbonaceous BOD (CBOD)	78.0	mg/L	FF	78.00
Timberlane Central - Non Potable - Raw Sampler	11/13/2022 05:00:00	Carbonaceous BOD (CBOD)	169	mg/L	FF	169.00
Timberlane Central - Non Potable - Raw Sampler	11/15/2022 06:00:00	Carbonaceous BOD (CBOD)	102	mg/L	FF	102.00
Timberlane Central - Non Potable - Raw Sampler	11/17/2022 05:00:00	Carbonaceous BOD (CBOD)	136	mg/L	FF	136.00
Timberlane Central - Non Potable - Raw Sampler	11/19/2022 05:00:00	Carbonaceous BOD (CBOD)	134	mg/L	FF	134.00
Timberlane Central - Non Potable - Raw Sampler	11/21/2022 05:00:00	Carbonaceous BOD (CBOD)	163	mg/L	FF	163.00
Timberlane Central - Non Potable - Raw Sampler	11/23/2022 07:00:00	Carbonaceous BOD (CBOD)	145	mg/L	FF	145.00
Timberlane Central - Non Potable - Raw Sampler	11/25/2022 05:00:00	Carbonaceous BOD (CBOD)	<50.0	mg/L	U, FF, J4	
Timberlane Central - Non Potable - Raw Sampler	11/27/2022 05:00:00	Carbonaceous BOD (CBOD)	149	mg/L	FF	149.00
Timberlane Central - Non Potable - Raw Sampler	11/29/2022 05:00:00	Carbonaceous BOD (CBOD)	181	mg/L	FF	181.00
Timberlane Central - Non Potable - Raw Sampler	12/01/2022 06:00:00	Carbonaceous BOD (CBOD)	203	mg/L	FF	203.00
Timberlane Central - Non Potable - Raw Sampler	12/03/2022 05:00:00	Carbonaceous BOD (CBOD)	107	mg/L		107.00
Timberlane Central - Non Potable - Raw Sampler	12/05/2022 05:00:00	Carbonaceous BOD (CBOD)	196	mg/L	FF	196.00
Timberlane Central - Non Potable - Raw Sampler	12/07/2022 04:00:00	Carbonaceous BOD (CBOD)	155	mg/L	FF	155.00
Timberlane Central - Non Potable - Raw Sampler	12/09/2022 06:00:00	Carbonaceous BOD (CBOD)	176	mg/L	FF	176.00
Timberlane Central - Non Potable - Raw Sampler	12/11/2022 06:00:00	Carbonaceous BOD (CBOD)	<50.0	mg/L	U, FF, J4	
Timberlane Central - Non Potable - Raw Sampler	12/13/2022 05:00:00	Carbonaceous BOD (CBOD)	199	mg/L	FF	199.00



Timberlane Central - Non Potable - Raw Sampler	12/15/2022 05:00:00	Carbonaceous BOD (CBOD)	210	mg/L	FF	210.00
Timberlane Central - Non Potable - Raw Sampler	12/17/2022 05:00:00	Carbonaceous BOD (CBOD)	165	mg/L	FF	165.00
Timberlane Central - Non Potable - Raw Sampler	12/19/2022 05:00:00	Carbonaceous BOD (CBOD)	198	mg/L	FF, HP	198.00
Timberlane Central - Non Potable - Raw Sampler	12/21/2022 05:00:00	Carbonaceous BOD (CBOD)	231	mg/L	FF	231.00
Timberlane Central - Non Potable - Raw Sampler	12/23/2022 05:00:00	Carbonaceous BOD (CBOD)	101	mg/L	FF, H	101.00
Timberlane Central - Non Potable - Raw Sampler	12/25/2022 05:00:00	Carbonaceous BOD (CBOD)	124	mg/L	FF	124.00
Timberlane Central - Non Potable - Raw Sampler	12/27/2022 05:00:00	Carbonaceous BOD (CBOD)	381	mg/L	FF	381.00
Timberlane Central - Non Potable - Raw Sampler	12/29/2022 06:00:00	Carbonaceous BOD (CBOD)	170	mg/L		170.00
Timberlane Central - Non Potable - Raw Sampler	12/31/2022 05:00:00	Carbonaceous BOD (CBOD)	194	mg/L	FF	194.00
Timberlane Central - Non Potable - Raw Sampler	01/02/2023 05:00:00	Carbonaceous BOD (CBOD)	201	mg/L	FF	201.00
Timberlane Central - Non Potable - Raw Sampler	01/04/2023 05:00:00	Carbonaceous BOD (CBOD)	190	mg/L	FF	190.00
Timberlane Central - Non Potable - Raw Sampler	01/06/2023 05:00:00	Carbonaceous BOD (CBOD)	168	mg/L	FF	168.00
Timberlane Central - Non Potable - Raw Sampler	01/08/2023 05:00:00	Carbonaceous BOD (CBOD)	73.4	mg/L	FF	73.40
Timberlane Central - Non Potable - Raw Sampler	01/10/2023 05:00:00	Carbonaceous BOD (CBOD)	167	mg/L	FF	167.00
Timberlane Central - Non Potable - Raw Sampler	01/12/2023 06:00:00	Carbonaceous BOD (CBOD)	111	mg/L	FF	111.00
Timberlane Central - Non Potable - Raw Sampler	01/14/2023 05:00:00	Carbonaceous BOD (CBOD)	81.1	mg/L		81.10
Timberlane Central - Non Potable - Raw Sampler	01/16/2023 08:00:00	Carbonaceous BOD (CBOD)	162	mg/L	FF	162.00
Timberlane Central - Non Potable - Raw Sampler	01/18/2023 05:00:00	Carbonaceous BOD (CBOD)	190	mg/L	FF	190.00
Timberlane Central - Non Potable - Raw Sampler	01/20/2023 06:00:00	Carbonaceous BOD (CBOD)	165	mg/L	FF	165.00
Timberlane Central - Non Potable - Raw Sampler	01/22/2023 05:00:00	Carbonaceous BOD (CBOD)	219	mg/L	FF	219.00
Timberlane Central - Non Potable - Raw Sampler	01/24/2023 05:00:00	Carbonaceous BOD (CBOD)	161	mg/L	FF	161.00
Timberlane Central - Non Potable - Raw Sampler	01/26/2023 04:00:00	Carbonaceous BOD (CBOD)	203	mg/L	FF	203.00
Timberlane Central - Non Potable - Raw Sampler	01/28/2023 05:00:00	Carbonaceous BOD (CBOD)	150	mg/L	FF	150.00
Timberlane Central - Non Potable - Raw Sampler	01/30/2023 05:00:00	Carbonaceous BOD (CBOD)	147	mg/L	FF	147.00
Timberlane Central - Non Potable - Raw Sampler	02/01/2023 05:00:00	Carbonaceous BOD (CBOD)	155	mg/L	FF	155.00
Timberlane Central - Non Potable - Raw Sampler	02/03/2023 05:00:00	Carbonaceous BOD (CBOD)	112	mg/L	FF	112.00
Timberlane Central - Non Potable - Raw Sampler	02/05/2023 05:00:00	Carbonaceous BOD (CBOD)	136	mg/L		136.00
Timberlane Central - Non Potable - Raw Sampler	02/07/2023 05:00:00	Carbonaceous BOD (CBOD)	169	mg/L	FF	169.00
Timberlane Central - Non Potable - Raw Sampler	02/09/2023 06:00:00	Carbonaceous BOD (CBOD)	145	mg/L	FF	145.00
Timberlane Central - Non Potable - Raw Sampler	02/11/2023 07:00:00	Carbonaceous BOD (CBOD)	140	mg/L	FF	140.00
Timberlane Central - Non Potable - Raw Sampler	02/13/2023 06:00:00	Carbonaceous BOD (CBOD)	141	mg/L	FF	141.00
Timberlane Central - Non Potable - Raw Sampler	02/15/2023 06:00:00	Carbonaceous BOD (CBOD)	150	mg/L		150.00
Timberlane Central - Non Potable - Raw Sampler	02/17/2023 06:00:00	Carbonaceous BOD (CBOD)	125	mg/L		125.00
Timberlane Central - Non Potable - Raw Sampler	02/19/2023 05:00:00	Carbonaceous BOD (CBOD)	161	mg/L	FF	161.00
Timberlane Central - Non Potable - Raw Sampler	02/21/2023 06:00:00	Carbonaceous BOD (CBOD)	167	mg/L		167.00
Timberlane Central - Non Potable - Raw Sampler	02/23/2023 06:00:00	Carbonaceous BOD (CBOD)	168	mg/L		168.00
Timberlane Central - Non Potable - Raw Sampler	02/25/2023 05:00:00	Carbonaceous BOD (CBOD)	122	mg/L	FF	122.00



Timberlane Central - Non Potable - Raw Sampler	02/27/2023 06:00:00	Carbonaceous BOD (CBOD)	132	mg/L	HP	132.00
Timberlane Central - Non Potable - Raw Sampler	03/01/2023 06:00:00	Carbonaceous BOD (CBOD)	170	mg/L	FF	170.00
Timberlane Central - Non Potable - Raw Sampler	03/03/2023 06:00:00	Carbonaceous BOD (CBOD)	122	mg/L		122.00
Timberlane Central - Non Potable - Raw Sampler	03/05/2023 05:00:00	Carbonaceous BOD (CBOD)	147	mg/L		147.00
Timberlane Central - Non Potable - Raw Sampler	03/07/2023 06:00:00	Carbonaceous BOD (CBOD)	135	mg/L	FF	135.00
Timberlane Central - Non Potable - Raw Sampler	03/09/2023 06:00:00	Carbonaceous BOD (CBOD)	128	mg/L		128.00
Timberlane Central - Non Potable - Raw Sampler	03/11/2023 05:00:00	Carbonaceous BOD (CBOD)	148	mg/L	H	148.00
Timberlane Central - Non Potable - Raw Sampler	03/13/2023 06:00:00	Carbonaceous BOD (CBOD)	189	mg/L		189.00
Timberlane Central - Non Potable - Raw Sampler	03/15/2023 06:00:00	Carbonaceous BOD (CBOD)	104	mg/L		104.00
Timberlane Central - Non Potable - Raw Sampler	03/17/2023 06:00:00	Carbonaceous BOD (CBOD)	133	mg/L	FF, H	133.00
Timberlane Central - Non Potable - Raw Sampler	03/19/2023 05:00:00	Carbonaceous BOD (CBOD)	174	mg/L	FF, H	174.00
Timberlane Central - Non Potable - Raw Sampler	03/21/2023 06:00:00	Carbonaceous BOD (CBOD)	200	mg/L	FF	200.00
Timberlane Central - Non Potable - Raw Sampler	03/23/2023 06:00:00	Carbonaceous BOD (CBOD)	97.5	mg/L	FF, H	97.50
Timberlane Central - Non Potable - Raw Sampler	03/25/2023 05:00:00	Carbonaceous BOD (CBOD)	76.2	mg/L	FF	76.20
Timberlane Central - Non Potable - Raw Sampler	03/27/2023 06:00:00	Carbonaceous BOD (CBOD)	86.2	mg/L	FF	86.20
Timberlane Central - Non Potable - Raw Sampler	03/29/2023 06:00:00	Carbonaceous BOD (CBOD)	<50.0	mg/L	U, J4	
Timberlane Central - Non Potable - Raw Sampler	03/31/2023 05:00:00	Carbonaceous BOD (CBOD)	87.9	mg/L		87.90
Timberlane Central - Non Potable - Raw Sampler	04/02/2023 05:00:00	Carbonaceous BOD (CBOD)	101	mg/L		101.00
Timberlane Central - Non Potable - Raw Sampler	04/04/2023 06:00:00	Carbonaceous BOD (CBOD)	136	mg/L	FF	136.00
Timberlane Central - Non Potable - Raw Sampler	04/06/2023 07:20:00	Carbonaceous BOD (CBOD)	91.3	mg/L	FF, H	91.30
Timberlane Central - Non Potable - Raw Sampler	04/08/2023 05:00:00	Carbonaceous BOD (CBOD)	82.6	mg/L	FF	82.60
Timberlane Central - Non Potable - Raw Sampler	04/29/2023 05:00:00	Carbonaceous BOD (CBOD)	99.4	mg/L	FF	99.40
Timberlane Central - Non Potable - Raw Sampler	05/01/2023 05:00:00	Carbonaceous BOD (CBOD)	248	mg/L	FF	248.00
Timberlane Central - Non Potable - Raw Sampler	05/03/2023 08:00:00	Carbonaceous BOD (CBOD)	187	mg/L	FF	187.00
Timberlane Central - Non Potable - Raw Sampler	05/05/2023 05:00:00	Carbonaceous BOD (CBOD)	199	mg/L	FF	199.00
Timberlane Central - Non Potable - Raw Sampler	05/07/2023 05:00:00	Carbonaceous BOD (CBOD)	162	mg/L	FF	162.00
Timberlane Central - Non Potable - Raw Sampler	05/09/2023 08:00:00	Carbonaceous BOD (CBOD)	114	mg/L	FF	114.00
Timberlane Central - Non Potable - Raw Sampler	05/11/2023 06:00:00	Carbonaceous BOD (CBOD)	173	mg/L	FF	173.00
Timberlane Central - Non Potable - Raw Sampler	05/13/2023 05:00:00	Carbonaceous BOD (CBOD)	143	mg/L		143.00
Timberlane Central - Non Potable - Raw Sampler	05/15/2023 06:00:00	Carbonaceous BOD (CBOD)	175	mg/L	FF	175.00
Timberlane Central - Non Potable - Raw Sampler	05/17/2023 06:00:00	Carbonaceous BOD (CBOD)	107	mg/L	FF	107.00
Timberlane Central - Non Potable - Raw Sampler	05/19/2023 05:00:00	Carbonaceous BOD (CBOD)	215	mg/L		215.00
Timberlane Central - Non Potable - Raw Sampler	05/21/2023 05:00:00	Carbonaceous BOD (CBOD)	165	mg/L	FF	165.00
Timberlane Central - Non Potable - Raw Sampler	05/23/2023 06:00:00	Carbonaceous BOD (CBOD)	139	mg/L		139.00
Timberlane Central - Non Potable - Raw Sampler	05/25/2023 06:00:00	Carbonaceous BOD (CBOD)	188	mg/L		188.00
Timberlane Central - Non Potable - Raw Sampler	05/27/2023 07:00:00	Carbonaceous BOD (CBOD)	177	mg/L	FF	177.00
Timberlane Central - Non Potable - Raw Sampler	05/29/2023 05:00:00	Carbonaceous BOD (CBOD)	209	mg/L	FF	209.00



Timberlane Central - Non Potable - Raw Sampler	05/31/2023 05:00:00	Carbonaceous BOD (CBOD)	113	mg/L	FF	113.00
Timberlane Central - Non Potable - Raw Sampler	06/02/2023 06:00:00	Carbonaceous BOD (CBOD)	230	mg/L		230.00
Timberlane Central - Non Potable - Raw Sampler	06/04/2023 05:00:00	Carbonaceous BOD (CBOD)	<50.0	mg/L	U, 14	
Timberlane Central - Non Potable - Raw Sampler	06/06/2023 07:00:00	Carbonaceous BOD (CBOD)	167	mg/L	FF	167.00
Timberlane Central - Non Potable - Raw Sampler	06/08/2023 07:00:00	Carbonaceous BOD (CBOD)	162	mg/L	FF	162.00
Timberlane Central - Non Potable - Raw Sampler	06/10/2023 05:00:00	Carbonaceous BOD (CBOD)	137	mg/L		137.00
Timberlane Central - Non Potable - Raw Sampler	06/12/2023 05:00:00	Carbonaceous BOD (CBOD)	200	mg/L	FF	200.00
Timberlane Central - Non Potable - Raw Sampler	06/14/2023 05:00:00	Carbonaceous BOD (CBOD)	218	mg/L		218.00
Timberlane Central - Non Potable - Raw Sampler	06/16/2023 07:00:00	Carbonaceous BOD (CBOD)	179	mg/L		179.00
Timberlane Central - Non Potable - Raw Sampler	06/18/2023 08:00:00	Carbonaceous BOD (CBOD)	159	mg/L		159.00
Timberlane Central - Non Potable - Raw Sampler	06/20/2023 07:00:00	Carbonaceous BOD (CBOD)	81.6	mg/L	FF	81.60
Timberlane Central - Non Potable - Raw Sampler	06/22/2023 07:00:00	Carbonaceous BOD (CBOD)	89.2	mg/L		89.20
Timberlane Central - Non Potable - Raw Sampler	06/24/2023 05:00:00	Carbonaceous BOD (CBOD)	249	mg/L	FF	249.00
Timberlane Central - Non Potable - Raw Sampler	06/26/2023 07:00:00	Carbonaceous BOD (CBOD)	153	mg/L		153.00
Timberlane Central - Non Potable - Raw Sampler	06/28/2023 05:00:00	Carbonaceous BOD (CBOD)	174	mg/L	FF	174.00
Timberlane Central - Non Potable - Raw Sampler	06/30/2023 05:00:00	Carbonaceous BOD (CBOD)	138	mg/L		138.00
Timberlane Central - Non Potable - Raw Sampler	07/02/2023 08:00:00	Carbonaceous BOD (CBOD)	132	mg/L		132.00
Timberlane Central - Non Potable - Raw Sampler	07/04/2023 05:00:00	Carbonaceous BOD (CBOD)	88.7	mg/L	FF	88.70
Timberlane Central - Non Potable - Raw Sampler	07/06/2023 07:00:00	Carbonaceous BOD (CBOD)	240	mg/L		240.00
Timberlane Central - Non Potable - Raw Sampler	07/08/2023 07:00:00	Carbonaceous BOD (CBOD)	164	mg/L		164.00
Timberlane Central - Non Potable - Raw Sampler	07/10/2023 06:00:00	Carbonaceous BOD (CBOD)	116	mg/L		116.00
Timberlane Central - Non Potable - Raw Sampler	07/12/2023 05:00:00	Carbonaceous BOD (CBOD)	116	mg/L		116.00
Timberlane Central - Non Potable - Raw Sampler	07/14/2023 07:00:00	Carbonaceous BOD (CBOD)	160	mg/L	H	160.00
Timberlane Central - Non Potable - Raw Sampler	07/16/2023 06:00:00	Carbonaceous BOD (CBOD)	132	mg/L		132.00
Timberlane Central - Non Potable - Raw Sampler	07/18/2023 07:00:00	Carbonaceous BOD (CBOD)	151	mg/L		151.00



Timberlane Central - Non Potable - Raw Sampler	07/20/2023 07:00:00	Carbonaceous BOD (CBOD)	105	mg/L	FF	105.00
Timberlane Central - Non Potable - Raw Sampler	07/22/2023 05:00:00	Carbonaceous BOD (CBOD)	234	mg/L		234.00
Timberlane Central - Non Potable - Raw Sampler	07/24/2023 06:00:00	Carbonaceous BOD (CBOD)	153	mg/L		153.00
Timberlane Central - Non Potable - Raw Sampler	07/26/2023 05:00:00	Carbonaceous BOD (CBOD)	121	mg/L		121.00
Timberlane Central - Non Potable - Raw Sampler	07/28/2023 05:00:00	Carbonaceous BOD (CBOD)	115	mg/L		115.00
Timberlane Central - Non Potable - Raw Sampler	07/30/2023 05:00:00	Carbonaceous BOD (CBOD)	104	mg/L		104.00
Timberlane Central - Non Potable - Raw Sampler	08/01/2023 07:00:00	Carbonaceous BOD (CBOD)	170	mg/L		170.00
Timberlane Central - Non Potable - Raw Sampler	08/03/2023 08:00:00	Carbonaceous BOD (CBOD)	80.3	mg/L		80.30
Timberlane Central - Non Potable - Raw Sampler	08/05/2023 05:00:00	Carbonaceous BOD (CBOD)	202	mg/L		202.00
Timberlane Central - Non Potable - Raw Sampler	08/07/2023 08:00:00	Carbonaceous BOD (CBOD)	140	mg/L	FF	140.00
Timberlane Central - Non Potable - Raw Sampler	08/09/2023 05:00:00	Carbonaceous BOD (CBOD)	117	mg/L		117.00
Timberlane Central - Non Potable - Raw Sampler	08/11/2023 07:00:00	Carbonaceous BOD (CBOD)	170	mg/L		170.00
Timberlane Central - Non Potable - Raw Sampler	08/13/2023 05:00:00	Carbonaceous BOD (CBOD)	173	mg/L		173.00
Timberlane Central - Non Potable - Raw Sampler	08/15/2023 06:00:00	Carbonaceous BOD (CBOD)	130	mg/L	FF	130.00
Timberlane Central - Non Potable - Raw Sampler	08/17/2023 07:00:00	Carbonaceous BOD (CBOD)	81.3	mg/L		81.30
Timberlane Central - Non Potable - Raw Sampler	08/19/2023 05:00:00	Carbonaceous BOD (CBOD)	138	mg/L	FF	138.00
Timberlane Central - Non Potable - Raw Sampler	08/21/2023 07:00:00	Carbonaceous BOD (CBOD)	147	mg/L		147.00
Timberlane Central - Non Potable - Raw Sampler	08/23/2023 07:00:00	Carbonaceous BOD (CBOD)	105	mg/L		105.00
Timberlane Central - Non Potable - Raw Sampler	08/25/2023 05:00:00	Carbonaceous BOD (CBOD)	109	mg/L		109.00
Timberlane Central - Non Potable - Raw Sampler	08/27/2023 05:00:00	Carbonaceous BOD (CBOD)	146	mg/L		146.00
Timberlane Central - Non Potable - Raw Sampler	08/29/2023 05:00:00	Carbonaceous BOD (CBOD)	145	mg/L		145.00
Timberlane Central - Non Potable - Raw Sampler	08/31/2023 06:00:00	Carbonaceous BOD (CBOD)	98.7	mg/L		98.70
Timberlane Central - Non Potable - Raw Sampler	09/02/2023 05:00:00	Carbonaceous BOD (CBOD)	106	mg/L		106.00
Timberlane Central - Non Potable - Raw Sampler	09/04/2023 08:00:00	Carbonaceous BOD (CBOD)	178	mg/L		178.00
Timberlane Central - Non Potable - Raw Sampler	09/06/2023 05:00:00	Carbonaceous BOD (CBOD)	140	mg/L		140.00
Timberlane Central - Non Potable - Raw Sampler	09/10/2023 05:00:00	Carbonaceous BOD (CBOD)	144	mg/L		144.00
Timberlane Central - Non Potable - Raw Sampler	09/12/2023 07:00:00	Carbonaceous BOD (CBOD)	89.0	mg/L		89.00
Timberlane Central - Non Potable - Raw Sampler	09/16/2023 07:30:00	Carbonaceous BOD (CBOD)	82.7	mg/L		82.70
Timberlane Central - Non Potable - Raw Sampler	09/18/2023 05:00:00	Carbonaceous BOD (CBOD)	126	mg/L	HP	126.00
Timberlane Central - Non Potable - Raw Sampler	09/20/2023 05:00:00	Carbonaceous BOD (CBOD)	128	mg/L		128.00
Timberlane Central - Non Potable - Raw Sampler	09/22/2023 06:00:00	Carbonaceous BOD (CBOD)	113	mg/L	FF	113.00
Timberlane Central - Non Potable - Raw Sampler	09/24/2023 08:00:00	Carbonaceous BOD (CBOD)	146	mg/L		146.00
Timberlane Central - Non Potable - Raw Sampler	09/26/2023 07:00:00	Carbonaceous BOD (CBOD)	158	mg/L		158.00
Timberlane Central - Non Potable - Raw Sampler	09/28/2023 06:00:00	Carbonaceous BOD (CBOD)	126	mg/L	FF	126.00
Timberlane Central - Non Potable - Raw Sampler	09/30/2023 05:00:00	Carbonaceous BOD (CBOD)	151	mg/L		151.00
					Average	153.4317



Flow (MGD)

9/1/2022	1.452	10/01/2022	1.097	11/01/2022	1.244	12/01/2022	1.161	01/01/2023	1.485	02/01/2023	1.426	03/01/2023	1.305	04/01/2023	1.866	05/01/2023	1.206	06/01/2023	1.313	07/01/2023	1.051	08/01/2023	1.287	09/01/2023	1.237
9/2/2022	1.431	10/02/2022	1.114	11/02/2022	1.230	12/02/2022	1.136	01/02/2023	1.235	02/02/2023	1.750	03/02/2023	1.438	04/02/2023	1.950	05/02/2023	1.210	06/02/2023	1.384	07/02/2023	1.344	08/02/2023	1.335	09/02/2023	1.422
9/3/2022	2.721	10/03/2022	1.138	11/03/2022	1.197	12/03/2022	1.313	01/03/2023	1.270	02/03/2023	1.183	03/03/2023	1.260	04/03/2023	0.916	05/03/2023	1.466	06/03/2023	1.869	07/03/2023	1.278	08/03/2023	1.349	09/03/2023	1.450
9/4/2022	1.557	10/04/2022	1.109	11/04/2022	1.181	12/04/2022	1.468	01/04/2023	1.297	02/04/2023	1.347	03/04/2023	1.469	04/04/2023	1.301	05/04/2023	1.082	06/04/2023	1.420	07/04/2023	1.477	08/04/2023	1.520	09/04/2023	1.676
9/5/2022	1.815	10/05/2022	1.212	11/05/2022	1.226	12/05/2022	1.020	01/05/2023	1.258	02/05/2023	1.512	03/05/2023	1.095	04/05/2023	1.555	05/05/2023	1.201	06/05/2023	1.381	07/05/2023	1.389	08/05/2023	1.459	09/05/2023	1.344
9/6/2022	2.409	10/06/2022	1.146	11/06/2022	2.079	12/06/2022	1.261	01/06/2023	1.116	02/06/2023	1.325	03/06/2023	1.375	04/06/2023	1.501	05/06/2023	1.454	06/06/2023	1.332	07/06/2023	2.116	08/06/2023	1.122	09/06/2023	1.997
9/7/2022	1.416	10/07/2022	1.102	11/07/2022	1.294	12/07/2022	1.229	01/07/2023	1.667	02/07/2023	1.316	03/07/2023	1.304	04/07/2023	1.746	05/07/2023	1.445	06/07/2023	1.618	07/07/2023	1.304	08/07/2023	1.339	09/07/2023	1.465
9/8/2022	1.428	10/08/2022	1.231	11/08/2022	1.355	12/08/2022	1.223	01/08/2023	1.543	02/08/2023	1.801	03/08/2023	1.274	04/08/2023	1.503	05/08/2023	1.744	06/08/2023	1.332	07/08/2023	1.426	08/08/2023	1.349	09/08/2023	1.460
9/9/2022	1.523	10/09/2022	1.231	11/09/2022	1.716	12/09/2022	1.780	01/09/2023	1.341	02/09/2023	1.257	03/09/2023	1.300	04/09/2023	1.291	05/09/2023	3.637	06/09/2023	1.285	07/09/2023	1.505	08/09/2023	1.345	09/09/2023	1.639
9/10/2022	1.443	10/10/2022	1.310	11/10/2022	0.862	12/10/2022	2.115	01/10/2023	1.312	02/10/2023	1.523	03/10/2023	1.303	04/10/2023	1.245	05/10/2023	2.134	06/10/2023	1.381	07/10/2023	1.412	08/10/2023	1.327	09/10/2023	1.133
9/11/2022	1.444	10/11/2022	1.175	11/11/2022	1.412	12/11/2022	1.192	01/11/2023	1.345	02/11/2023	1.139	03/11/2023	1.409	04/11/2023	1.216	05/11/2023	1.020	06/11/2023	1.548	07/11/2023	1.426	08/11/2023	1.300	09/11/2023	1.368
9/12/2022	1.427	10/12/2022	1.226	11/12/2022	0.771	12/12/2022	1.287	01/12/2023	1.201	02/12/2023	1.207	03/12/2023	1.348	04/12/2023	1.180	05/12/2023	1.879	06/12/2023	1.325	07/12/2023	1.489	08/12/2023	1.441	09/12/2023	1.478
9/13/2022	1.312	10/13/2022	1.226	11/13/2022	0.761	12/13/2022	1.415	01/13/2023	1.282	02/13/2023	1.336	03/13/2023	1.155	04/13/2023	1.181	05/13/2023	4.414	06/13/2023	0.971	07/13/2023	1.489	08/13/2023	1.557	09/13/2023	1.423
9/14/2022	1.406	10/14/2022	1.127	11/14/2022	1.105	12/14/2022	1.280	01/14/2023	1.089	02/14/2023	1.263	03/14/2023	1.182	04/14/2023	1.599	05/14/2023	1.036	06/14/2023	1.472	07/14/2023	2.123	08/14/2023	1.349	09/14/2023	1.819
9/15/2022	1.489	10/15/2022	1.297	11/15/2022	1.178	12/15/2022	1.150	01/15/2023	1.310	02/15/2023	1.352	03/15/2023	1.209	04/15/2023	1.414	05/15/2023	1.267	06/15/2023	1.376	07/15/2023	1.412	08/15/2023	1.280	09/15/2023	2.117
9/16/2022	1.284	10/16/2022	1.448	11/16/2022	1.175	12/16/2022	1.076	01/16/2023	1.365	02/16/2023	1.152	03/16/2023	1.504	04/16/2023	0.816	05/16/2023	1.390	06/16/2023	1.814	07/16/2023	0.909	08/16/2023	1.297	09/16/2023	1.713
9/17/2022	1.520	10/17/2022	1.124	11/17/2022	1.061	12/17/2022	1.186	01/17/2023	1.246	02/17/2023	1.453	03/17/2023	1.605	04/17/2023	1.166	05/17/2023	1.268	06/17/2023	1.384	07/17/2023	1.433	08/17/2023	1.288	09/17/2023	1.070
9/18/2022	1.458	10/18/2022	1.065	11/18/2022	1.210	12/18/2022	1.321	01/18/2023	1.165	02/18/2023	1.388	03/18/2023	1.368	04/18/2023	1.571	05/18/2023	1.222	06/18/2023	1.169	07/18/2023	1.443	08/18/2023	1.914	09/18/2023	1.380
9/19/2022	1.429	10/19/2022	1.123	11/19/2022	1.428	12/19/2022	1.530	01/19/2023	1.147	02/19/2023	0.991	03/19/2023	1.031	04/19/2023	0.992	05/19/2023	1.229	06/19/2023	1.460	07/19/2023	1.451	08/19/2023	1.318	09/19/2023	1.328
9/20/2022	1.429	10/20/2022	1.194	11/20/2022	1.253	12/20/2022	1.205	01/20/2023	1.522	02/20/2023	1.398	03/20/2023	1.377	04/20/2023	2.167	05/20/2023	1.315	06/20/2023	1.343	07/20/2023	1.316	08/20/2023	1.032	09/20/2023	1.338
9/21/2022	1.387	10/21/2022	1.588	11/21/2022	1.506	12/21/2022	1.178	01/21/2023	1.379	02/21/2023	1.281	03/21/2023	1.519	04/21/2023	0.900	05/21/2023	1.486	06/21/2023	1.607	07/21/2023	1.307	08/21/2023	1.456	09/21/2023	1.348
9/22/2022	1.446	10/22/2022	1.208	11/22/2022	1.221	12/22/2022	1.424	01/22/2023	1.017	02/22/2023	1.354	03/22/2023	1.523	04/22/2023	1.550	05/22/2023	1.362	06/22/2023	1.153	07/22/2023	1.349	08/22/2023	1.267	09/22/2023	1.298
9/23/2022	1.371	10/23/2022	1.089	11/23/2022	1.321	12/23/2022	1.864	01/23/2023	1.037	02/23/2023	1.304	03/23/2023	1.221	04/23/2023	0.993	05/23/2023	1.418	06/23/2023	1.152	07/23/2023	1.517	08/23/2023	1.353	09/23/2023	1.450
9/24/2022	1.553	10/24/2022	1.234	11/24/2022	1.801	12/24/2022	1.734	01/24/2023	3.013	02/24/2023	1.520	03/24/2023	2.478	04/24/2023	1.126	05/24/2023	1.275	06/24/2023	1.164	07/24/2023	1.226	08/24/2023	1.376	09/24/2023	1.581
9/25/2022	1.559	10/25/2022	1.139	11/25/2022	1.546	12/25/2022	1.436	01/25/2023	1.268	02/25/2023	1.746	03/25/2023	0.861	04/25/2023	1.228	05/25/2023	1.218	06/25/2023	0.603	07/25/2023	1.318	08/25/2023	1.660	09/25/2023	1.257
9/26/2022	1.319	10/26/2022	1.117	11/26/2022	1.997	12/26/2022	1.250	01/26/2023	1.308	02/26/2023	0.804	03/26/2023	1.718	04/26/2023	1.335	05/26/2023	1.432	06/26/2023	1.324	07/26/2023	1.287	08/26/2023	1.254	09/26/2023	1.354
9/27/2022	1.321	10/27/2022	1.253	11/27/2022	1.381	12/27/2022	1.284	01/27/2023	1.260	02/27/2023	1.182	03/27/2023	1.512	04/27/2023	1.224	05/27/2023	1.620	06/27/2023	1.351	07/27/2023	1.308	08/27/2023	1.266	09/27/2023	1.232
9/28/2022	1.291	10/28/2022	1.612	11/28/2022	1.231	12/28/2022	1.616	01/28/2023	2.636	02/28/2023	1.362	03/28/2023	1.482	04/28/2023	1.254	05/28/2023	1.195	06/28/2023	1.336	07/28/2023	1.350	08/28/2023	1.355	09/28/2023	1.338
9/29/2022	1.089	10/29/2022	1.411	11/29/2022	1.288	12/29/2022	2.125	01/29/2023	2.666			03/29/2023	1.496	04/29/2023	1.219	05/29/2023	1.008	06/29/2023	1.298	07/29/2023	1.792	08/29/2023	1.249	09/29/2023	1.765
9/30/2022	1.344	10/30/2022	0.946	11/30/2022	1.143	12/30/2022	1.018	01/30/2023	1.304			03/30/2023	1.582	04/30/2023	1.391	05/30/2023	1.731	06/30/2023	2.029	07/30/2023	1.097	08/30/2023	1.238	09/30/2023	1.440
		10/31/2022	1.154			12/31/2022	2.069	01/31/2023	1.297			03/31/2023	1.502		05/31/2023	1.288			07/31/2023	1.339	08/31/2023	1.279			
																									Ave
																									1.385

**ATTACHMENT 12**  
**DESIGN CALCULATIONS**



WWTF EXPANSION TO 2.25 MGD TO SERVE TIMBERLANE UTILITY DISTRICT TCEQ DESIGN SUMMARY			
TPDES PERMIT NO.: 11142-002			
VEI PROJECT NO.: 05200-501-11-PMT			
DESIGN ENGINEER: EVAN COOK, P.E.			
LAST REVISION: OCTOBER 15, 2003			
F:\05200\500-0\Permit Major Amendment 2023\Calculations\Design Calculations\WWTP Design 6.xls\DESIGN SUMMARY			
DESCRIPTION	EXISTING/ INITIAL PHASE	INTERIM PHASE	FINAL PHASE
<b>Effluent Limitations</b>			
Average Daily Flow Rate (gal/day)	1,500,000	2,250,000	2,620,000
Peak Two-Hour Flow Rate (gal/day)	4,500,000	6,750,000	10,480,000
CBOD <sub>5</sub> for March-October (mg/L)	7	7	7
CBOD <sub>5</sub> for November-February (mg/L)	10	10	10
Total Suspended Solids (mg/L)	15	15	15
NH <sub>3</sub> -N for March-October	2	2	2
NH <sub>3</sub> -N for November-February	3	3	3
<b>Site Conditions</b>			
Maximum Ambient Temperature (°F)			100
Average March-October Temperature (°C)			23.8
Average November-February Temperature (°C)			12.2
Minimum Average Monthly Temperature (°C)			10.0
Saturated Water Vapor Pressure (psi)			0.95
Barometric Pressure (psia)			14.6
Relative Humidity (%)			90.0
<b>Influent Characteristics</b>			
CBOD <sub>5</sub> Concentration (mg/L)	200	200	200
TSS Concentration (mg/L)	220	220	220
FSS Concentration (mg/L)	55	55	55
TKN Concentration (mg/L)	40	40	40
CBOD <sub>5</sub> Loading (lbs/day)	2,502	3,753	4,371
TSS Loading (lbs/day)	2,753	4,129	4,808
FSS Loading (lbs/day)	689	1,033	1,202
<b>Aeration Basin</b>			
Volumetric Loading Criteria (lbs CBOD <sub>5</sub> /day/1,000 ft <sup>3</sup> )			35
Minimum Oxygen Requirement (lbs Oxygen/lb CBOD <sub>5</sub> )			2.2
Required Basin Volume (ft <sup>3</sup> )	50,040	107,229	124,886
Theoretical Basin Volume (ft <sup>3</sup> )	70,807	106,211	123,676
Design Basin Volume (ft <sup>3</sup> )	93,618	140,118	140,118
Design Hydraulic Retention Time (hours)	11	11	10
Design F:M Ratio (1/day)	0.21	0.21	0.25
Organic Loading (lb/day/1000 ft <sup>3</sup> )	27	27	31
<b>Secondary Clarifier</b>			
Maximum Surface Loading at Design Flow (gal/day/ft <sup>2</sup> )	600	600	600
Maximum Surface Loading at Peak Flow (gal/day/ft <sup>2</sup> )	1,200	1,200	1,200
Minimum Detention Time at Design Flow (hrs) (30 TAC 317)	3.0	3.0	3.0
Minimum Detention Time at Peak Flow (hrs) (30 TAC 317)	1.5	1.5	1.5
Peak Weir Loading Rate (gal/day/ft) (30 TAC 317)	20,000	20,000	20,000
Minimum Side Water Depth (ft) (30 TAC 317)	10	10	10
Number of Clarifiers	1	2	2
Design Clarifier Diameter (ft)	75.0	75.0	75.0
Design Side Water Depth (ft)	10.0	14.0	14.0
Surface Loading at Design Flow (gal/day/ft <sup>2</sup> )	340	255	297
Surface Loading at Peak Flow (gal/day/ft <sup>2</sup> )	1,019	764	1,186
Peak Weir Loading Rate (gal/day/ft)	20,610	15,458	23,999
Average Detention Time (hrs)	3.6	6.8	5.8
Peak Detention Time (hrs)	1.5	2.1	1.8
<b>Aerobic Digester</b>			
Volumetric Loading Criteria: (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)			20
Minimum Solids Retention Time (days)			15

WWTF EXPANSION TO 2.25 MGD TO SERVE TIMBERLANE UTILITY DISTRICT TCEQ DESIGN SUMMARY			
TPDES PERMIT NO.: 11142-002			
VEI PROJECT NO.: 05200-501-11-PMT			
DESIGN ENGINEER: EVAN COOK, P.E.			
LAST REVISION: OCTOBER 15, 2003			
F:\05200\500-0\Permit Major Amendment 2023\Calculations\Design Calculations\WWTP Design 6.xls\DESIGN SUMMARY			
DESCRIPTION	EXISTING/ INITIAL PHASE	INTERIM PHASE	FINAL PHASE
Existing Aerobic Digester Volume (ft <sup>3</sup> )			23,250
Design Solids Retention Time (days)	16	46	38
Design Aerobic Digester Volume (ft <sup>3</sup> )	23,250	78,120	78,120
Volumetric Loading Rate: (ft <sup>3</sup> /lb CBOD <sub>5</sub> /day)	9	21	18
<b>Chlorine Requirements</b>			
Process Control Chlorine Dosage (mg/L)			10
Maximum Chlorine Dosage (lb/day)	188	281	328
<b>Air Requirements</b>			
Aeration Basins (SCFM)	3,357	5,035	5,864
Aerobic Digester (SCFM)	698	2,344	2,344
Post Aeration (SCFM)	276	415	483
UV Air Scrub (SCFM)	40	90	90
Digester Air Lift Pumps (SCFM)	0	20	20
Scum Air Lift Pumps (SCFM)		40	40
Thickener Air Lift Pump (SCFM)		50	50
Thickener Recycle Reaeration (SCFM)		27	27
Total Standard Air Flow Rate (SCFM)	4,371	8,021	8,918
Inlet Pressure Loss (psig)	0.5	0.5	0.5
Required Blower Firm Capacity (ACFM)	5,091	9,342	10,387



**ATTACHMENT 13**  
**FACILITY SITE**











**ATTACHMENT 14**  
**LABORATORY DATA**





January 04, 2024

## Laboratory Report

Sergio Torres  
M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

Report ID: 20240104104430AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in black ink, appearing to read "Aundra Noe", written in a cursive style.

Aundra Noe For Deena Higginbotham  
Director of Client Services



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

### Sample Results

Client Sample ID: 18 Mohm DI

Sample Matrix: Waste Water

Lab Sample ID: 23L1769-01

Date Collected: 12/06/2023 6:40

Timberlane - Outfall 001 3 Part Grab Comp 1

[none]

Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### Metals, Total

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BGL2651	12/20/2023 13:22	JKC
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\* A = Accredited, N = Not Accredited or Accreditation not available



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab  
Lab Sample ID: 23L1769-02  
Timberlane - Outfall 001 3 Part Grab Comp 1

[none]

Sample Matrix: Waste Water  
Date Collected: 12/06/2023 6:40  
Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BGL2651	12/20/2023 13:27	JKC
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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: 18 Mohm DI

Sample Matrix: Waste Water

Lab Sample ID: 23L1770-01

Date Collected: 12/06/2023 13:10

Timberlane - Outfall 001 3 Part Grab Comp 2

[none]

Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BGL2651	12/20/2023 13:12	JKC
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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab  
Lab Sample ID: 23L1770-02  
Timberlane - Outfall 001 3 Part Grab Comp 2

Sample Matrix: Waste Water  
Date Collected: 12/06/2023 13:10  
Collected by: Francisco Gutierrez

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500U	ug/L	1	0.00250	0.00500	BGL2651	12/20/2023 13:17	JKC
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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001  
Lab Sample ID: 23L2149-01  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 12/07/2023 7:30  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**General Chemistry**

EPA 1664A	n-Hexane Extractable Material (O&G)	A	<5.00U	mg/L	1	5.00	5.00	BGL2370	12/14/2023 09:37	IDC
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**Microbiology**

SM 9223 B (Colilert Quanti-Tray)	Escherichia coli (E. coli)	A	6.30	MPN/100 mL	1	1.00	1.00	BGL1225	12/08/2023 15:28	JKB
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**Field**

Hach 10360	DO Field	N	7.27	mg/L	1	1.00	1.00	BGL1754	12/07/2023 07:30	HWR
Calc	Flow Field	N	1.38	MGD	1	0.00	0.00	BGL1754	12/07/2023 07:30	HWR
SM 4500-H+ B	pH	A	7.36	pH Units @ 25 °C	1	1.00	1.00	BGL1754	12/07/2023 07:30	HWR
SM 4500-Cl G	Total Residual Chlorine	A	<0.25U	mg/L	1	0.25	0.25	BGL1754	12/07/2023 07:30	HWR

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001  
Lab Sample ID: 23L2149-01RE1  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 12/07/2023 7:30  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**General Chemistry**

SM 4500-CN <sup>-</sup> G	Amenable Cyanide (Rerun)	A	<10.0HR, U	ug/L	1	5.00	10.0	BGL4831	12/29/2023 15:06	GJG
SM 4500-CN <sup>-</sup> C	Total Cyanide (Rerun)	A	<10.0HR, U	ug/L	1	5.00	10.0	BGL4831	12/29/2023 15:06	GJG

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-02

Date Collected: 12/07/2023 5:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Semivolatile Organic Compounds by GCMS**

ASTM D7065	Nonylphenol	N	<333U	ug/L	2	6.00	333	BGL1432	12/12/2023 12:32	KRB
ASTM D7065	Surrogate: n-NP-surr		78.1%	60-140					12/12/2023 12:32	
EPA 625.1	1,2,4,5-Tetrachlorobenzene	A	<10.0U	ug/L	1	0.0760	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	1,2,4-Trichlorobenzene	A	<10.0U	ug/L	1	0.0943	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	1,2-Diphenylhydrazine	A	<20.0U	ug/L	1	0.250	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	A	<10.0U	ug/L	1	0.129	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,4,5-Trichlorophenol	A	<10.0U	ug/L	1	0.210	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,4,6-Trichlorophenol	A	<10.0U	ug/L	1	0.385	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,4-Dichlorophenol	A	<10.0U	ug/L	1	0.256	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,4-Dimethylphenol	A	<10.0U	ug/L	1	0.294	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,4-Dinitrophenol	A	<50.0U	ug/L	1	2.85	50.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,4-Dinitrotoluene (2,4-DNT)	A	<10.0U	ug/L	1	0.0530	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2,6-Dinitrotoluene (2,6-DNT)	A	<10.0U	ug/L	1	0.584	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2-Chloronaphthalene	A	<10.0U	ug/L	1	0.123	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2-Chlorophenol	A	<10.0U	ug/L	1	0.147	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	A	<50.0U	ug/L	1	0.511	50.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	2-Nitrophenol	A	<20.0U	ug/L	1	0.218	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	3,4-Methylphenol	A	<10.0U	ug/L	1	0.462	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	4-Bromophenyl phenyl ether (BDE-3)	A	<10.0U	ug/L	1	0.0682	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	4-Chloro-3-methylphenol	A	<10.0U	ug/L	1	0.218	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	4-Chlorophenyl phenylether	A	<10.0U	ug/L	1	0.207	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	4-Nitrophenol	A	<50.0U	ug/L	1	2.40	50.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Acenaphthene	A	<10.0U	ug/L	1	0.0776	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Acenaphthylene	A	<10.0U	ug/L	1	0.0594	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Anthracene	A	<10.0U	ug/L	1	0.0532	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Benzo(a)anthracene	A	<5.00U	ug/L	1	0.0738	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Benzo(a)pyrene	A	<5.00U	ug/L	1	0.143	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	benzo(b&k)fluoranthene	A	<5.00U	ug/L	1	0.118	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Benzo(g,h,i)perylene	A	<20.0U	ug/L	1	0.112	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	bis(2-Chloroethoxy)methane	A	<10.0U	ug/L	1	0.112	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	bis(2-Chloroethyl) ether	A	<10.0U	ug/L	1	0.184	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Bis(2-ethylhexyl )phthalate	A	<10.0U	ug/L	1	0.500	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Butyl benzyl phthalate	A	<10.0U	ug/L	1	0.123	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Chrysene	A	<5.00U	ug/L	1	0.0573	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Dibenzo(a,h)anthracene	A	<5.00U	ug/L	1	0.152	5.00	BGL1922	12/16/2023 15:57	KRB

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-02

Date Collected: 12/07/2023 5:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Semivolatile Organic Compounds by GCMS (Continued)**

EPA 625.1	Diethyl phthalate	A	<10.0B, U	ug/L	1	0.150	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Dimethyl phthalate	A	<10.0U	ug/L	1	0.0869	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Di-n-butyl phthalate	A	<10.0U	ug/L	1	0.505	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Di-n-octyl phthalate	A	<10.0U	ug/L	1	0.163	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Fluoranthene	A	<10.0U	ug/L	1	0.0676	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Fluorene	A	<10.0U	ug/L	1	0.0589	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Hexachlorobenzene	A	<5.00U	ug/L	1	0.0629	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Hexachlorobutadiene	A	<10.0U	ug/L	1	0.0697	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Hexachlorocyclopentadiene	A	<10.0U	ug/L	1	0.250	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Hexachloroethane	A	<20.0U	ug/L	1	0.0644	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Indeno(1,2,3-cd) pyrene	A	<5.00U	ug/L	1	0.126	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Isophorone	A	<10.0U	ug/L	1	0.0853	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Naphthalene	A	<10.0U	ug/L	1	0.0742	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Nitrobenzene	A	<10.0U	ug/L	1	0.118	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	n-Nitrosodimethylamine	A	<50.0U	ug/L	1	1.24	50.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	n-Nitroso-di-n-butylamine	A	<20.0U	ug/L	1	1.87	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	n-Nitrosodi-n-propylamine	A	<20.0U	ug/L	1	0.445	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	n-Nitrosodiphenylamine	A	<20.0U	ug/L	1	0.0609	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Pentachlorobenzene	A	<20.0U	ug/L	1	0.0514	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Pentachlorophenol	A	<5.00U	ug/L	1	0.437	5.00	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Phenanthrene	A	<10.0U	ug/L	1	0.0816	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Phenol, Total	A	<10.0U	ug/L	1	0.470	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Pyrene	A	<10.0U	ug/L	1	0.0848	10.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Pyridine	A	<20.0U	ug/L	1	4.40	20.0	BGL1922	12/16/2023 15:57	KRB
EPA 625.1	Surrogate: 2,4,6-Tribromophenol-surr		83.0%	33.6-139					12/16/2023 15:57	
EPA 625.1	Surrogate: 2-Fluorobiphenyl-surr		60.2%	32.2-138					12/16/2023 15:57	
EPA 625.1	Surrogate: 2-Fluorophenol-surr		70.9%	32.7-137					12/16/2023 15:57	
EPA 625.1	Surrogate: Nitrobenzene-d5-surr		67.9%	31.2-136					12/16/2023 15:57	
EPA 625.1	Surrogate: Phenol-d5-surr		80.7%	28.9-155					12/16/2023 15:57	
EPA 625.1	Surrogate: p-Terphenyl-d14-surr		82.7%	37.6-117					12/16/2023 15:57	

**Organics by GC**

SM 6640 B	2,4-D	A	<0.236U	ug/L	2	0.236	0.700	BGL1517	12/19/2023 20:17	KRB
SM 6640 B	Silvex (2,4,5-TP)	A	<0.238U	ug/L	2	0.238	0.300	BGL1517	12/19/2023 20:17	KRB
SM 6640 B	Dicamba	N	<0.236U	ug/L	2	0.236	0.236	BGL1517	12/19/2023 20:17	KRB
SM 6640 B	2,4,5-T	N	<0.236U	ug/L	2	0.236	0.236	BGL1517	12/19/2023 20:17	KRB
SM 6640 B	Surrogate: DCAA-surr		118%	70-130					12/19/2023 20:17	
EPA 608.3	Dicofol	A	<0.120U	ug/L	1	0.120	1.00	BGL2486	12/15/2023 00:17	ALA

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-02

Date Collected: 12/07/2023 5:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Organics by GC (Continued)**

EPA 608.3	Mirex	A	<0.0100U	ug/L	1	0.0100	0.0200	BGL2486	12/15/2023 00:17	ALA
EPA 608.3	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		92.6%	25.2-154					12/15/2023 00:17	
EPA 608.3	Surrogate: Decachlorobiphenyl-surr		82.0%	41.2-118					12/15/2023 00:17	
EPA 1657	Azinphos-methyl (Guthion)	A	<0.0345U	ug/L	1	0.0345	0.104	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Chlorpyrifos	A	<0.0266U	ug/L	1	0.0266	0.0518	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Demeton	A	<0.0134U	ug/L	1	0.0134	0.207	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Diazinon	A	<0.0334U	ug/L	1	0.0334	0.518	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Malathion	A	<0.0138U	ug/L	1	0.0138	0.104	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Parathion, ethyl	A	<0.0214U	ug/L	1	0.0214	0.104	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Disulfoton	N	<0.0157U	ug/L	1	0.0157	0.0518	BGL1314	12/16/2023 00:23	KRB
EPA 1657	Surrogate: Tributyl Phosphate-surr		70.8%	40-120					12/16/2023 00:23	
EPA 1657	Surrogate: Triphenyl Phosphate-surr		55.0%	40-120					12/16/2023 00:23	

**Metals, Total**

EPA 200.8	Aluminum	A	20.0	ug/L	1	0.167	2.50	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Antimony	A	<5.00U	ug/L	1	0.0589	5.00	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Arsenic	A	1.69	ug/L	1	0.0468	0.500	BGL2105	12/15/2023 10:50	FAA
EPA 200.8	Barium	A	138	ug/L	1	0.0200	3.00	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Beryllium	A	<0.500U	ug/L	1	0.0137	0.500	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Cadmium	A	<1.00U	ug/L	1	0.00798	1.00	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Chromium	A	<3.00U	ug/L	1	0.0839	3.00	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Copper	A	4.64	ug/L	1	0.182	2.00	BGL2105	12/14/2023 11:49	JKC
Calc	Chromium (III)		<0.00600	mg/L	1	0.00158	0.00600	[CALC]	12/29/2023 13:11	NAZ
EPA 200.8	Lead	A	<0.500U	ug/L	1	0.0120	0.500	BGL2105	12/15/2023 11:48	FAA
EPA 200.8	Nickel	A	<2.00U	ug/L	1	0.0398	2.00	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Selenium	A	<5.00U	ug/L	1	0.354	5.00	BGL2105	12/15/2023 11:48	FAA
EPA 200.8	Silver	A	<0.500U	ug/L	1	0.00467	0.500	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Thallium	A	<0.500U	ug/L	1	0.0617	0.500	BGL2105	12/14/2023 11:49	JKC
EPA 200.8	Zinc	A	40.5	ug/L	1	0.207	5.00	BGL2105	12/14/2023 11:49	JKC

**General Chemistry**

SM 2320 B	Alkalinity as CaCO3	A	145	mg/L	1	10.0	10.0	BGL1331	12/08/2023 11:31	AKA
SM 5210 B	Carbonaceous BOD (CBOD)	A	2.49	mg/L	13514	2.03	2.03	BGL1329	12/13/2023 13:21	AMM
EPA 300.0	Chloride	A	82.1	mg/L	10	0.345	10.0	BGL1481	12/08/2023 20:32	EM
SM 2510 B	Conductivity	A	826	umhos/cm @ 25 °C	1	2.00	2.00	BGL1331	12/08/2023 11:31	AKA
EPA 300.0	Fluoride	A	0.429	mg/L	1	0.0105	0.250	BGL1481	12/08/2023 20:12	EM
EPA 350.1	Ammonia as N	A	0.107BB	mg/L	1	0.0200	0.0500	BGL1803	12/12/2023 11:46	GJG

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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-02

Date Collected: 12/07/2023 5:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**General Chemistry (Continued)**

EPA 300.0	Nitrate as N	A	17900	ug/L	10	142	1000	BGL1481	12/08/2023 20:32	EM
EPA 300.0	Nitrite as N	A	<50.0U	ug/L	1	5.10	50.0	BGL1481	12/08/2023 20:12	EM
EPA 300.0	Sulfate	A	27.7	mg/L	1	0.0341	1.00	BGL1481	12/08/2023 20:12	EM
SM 2540 C	Residue-filterable (TDS)	A	472	mg/L	1	10.0	10.0	BGL1320	12/11/2023 15:21	JRU
SM 4500-NH3 C	Total Kjeldahl Nitrogen - (TKN)	A	<1.00U	mg/L	1	0.100	1.00	BGL1872	12/13/2023 09:21	GIW
EPA 365.1	Total Phosphorus	A	4.69	mg/L	1	0.117	0.200	BGL1940	12/15/2023 08:44	TBB
SM 2540 D	Residue-nonfilterable (TSS)	A	5.47	mg/L	1	1.00	1.00	BGL1322	12/11/2023 11:19	JRU

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**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-02RE1

Date Collected: 12/07/2023 5:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Semivolatile Organic Compounds by GCMS**

EPA 625.1	Hexachlorophene (Rerun)	A	<10.0U	ug/L	1	0.343	10.0	BGL1922	12/20/2023 23:21	KRB
EPA 625.1	n-Nitrosodiethylamine (Rerun)	A	<20.0U	ug/L	1	0.162	20.0	BGL1922	12/20/2023 23:21	KRB
EPA 625.1	Surrogate: 2,4,6-Tribromophenol-surr (Rerun)		80.0%	33.6-139					12/20/2023 23:21	
EPA 625.1	Surrogate: 2-Fluorobiphenyl-surr (Rerun)		63.1%	32.2-138					12/20/2023 23:21	
EPA 625.1	Surrogate: 2-Fluorophenol-surr (Rerun)		83.3%	32.7-137					12/20/2023 23:21	
EPA 625.1	Surrogate: Nitrobenzene-d5-surr (Rerun)		76.7%	31.2-136					12/20/2023 23:21	
EPA 625.1	Surrogate: Phenol-d5-surr (Rerun)		90.3%	28.9-155					12/20/2023 23:21	
EPA 625.1	Surrogate: p-Terphenyl-d14-surr (Rerun)		87.8%	37.6-117					12/20/2023 23:21	

**Organics by GC**

EPA 608.3	4,4'-DDD (Rerun)	A	<0.00200C+, U	ug/L	1	0.00200	0.100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	4,4'-DDE (Rerun)	A	<0.00100C+, U	ug/L	1	0.00100	0.100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	4,4'-DDT (Rerun)	A	<0.00900C+, U	ug/L	1	0.00900	0.0200	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	Aldrin (Rerun)	A	<0.00100C+, U	ug/L	1	0.00100	0.0100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	cis-Chlordane (alpha-Chlordane) (Rerun)	A	<0.00500C+, U	ug/L	1	0.00500	0.100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	Endosulfan II (Rerun)	A	<0.00100C+, U	ug/L	1	0.00100	0.0200	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	Endosulfan sulfate (Rerun)	A	<0.0100C+, U	ug/L	1	0.0100	0.100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	Endrin ketone (Rerun)	A	<0.0200C+, U	ug/L	1	0.0200	0.100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	gamma-Chlordane (Rerun)	A	<0.00500C+, U	ug/L	1	0.00500	0.100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	Heptachlor epoxide (Rerun)	A	<0.00400C+, U	ug/L	1	0.00400	0.0100	BGL2486	12/20/2023 07:37	ALA
EPA 608.3	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		129%	25.2-154					12/20/2023 07:37	
EPA 608.3	Surrogate: Decachlorobiphenyl-surr (Rerun)		92.6%	41.2-118					12/20/2023 07:37	

**Metals, Dissolved**

SM 3500-Cr B	Chromium (VI) (Rerun)	A	<3.00U	ug/L	1	1.50	3.00	BGL4871	12/29/2023 13:11	NAZ
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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler  
Lab Sample ID: 23L2149-02RE2  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 12/07/2023 5:00  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Semivolatile Organic Compounds by GCMS**

EPA 625.1	3,3'-Dichlorobenzidine (Rerun)	A	<5.00 U	ug/L	1	3.87	5.00	BGL1922	12/21/2023 12:29	KRB
EPA 625.1	Benzidine (Rerun)	A	<50.0 U	ug/L	1	11.8	50.0	BGL1922	12/21/2023 12:29	KRB
EPA 625.1	Surrogate: 2,4,6-Tribromophenol-surr (Rerun)		142% S	33.6-139					12/21/2023 12:29	
EPA 625.1	Surrogate: 2-Fluorobiphenyl-surr (Rerun)		78.9%	32.2-138					12/21/2023 12:29	
EPA 625.1	Surrogate: 2-Fluorophenol-surr (Rerun)		62.7%	32.7-137					12/21/2023 12:29	
EPA 625.1	Surrogate: Nitrobenzene-d5-surr (Rerun)		82.0%	31.2-136					12/21/2023 12:29	
EPA 625.1	Surrogate: Phenol-d5-surr (Rerun)		80.8%	28.9-155					12/21/2023 12:29	
EPA 625.1	Surrogate: p-Terphenyl-d14-surr (Rerun)		113%	37.6-117					12/21/2023 12:29	

**Organics by GC**

EPA 608.3	delta-BHC (Rerun)	A	<0.00300 U, C+	ug/L	1	0.00300	0.0500	BGL2486	12/22/2023 11:29	ALA
EPA 608.3	Methoxychlor (Rerun)	A	<0.0100 U	ug/L	1	0.0100	2.00	BGL2486	12/22/2023 11:29	ALA
EPA 608.3	Toxaphene (Chlorinated Camphene) (Rerun)	A	<0.100 C+, U	ug/L	1	0.100	0.300	BGL2486	12/22/2023 11:29	ALA
EPA 608.3	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		165% S	25.2-154					12/22/2023 11:29	
EPA 608.3	Surrogate: Decachlorobiphenyl-surr (Rerun)		90.2%	41.2-118					12/22/2023 11:29	

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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler  
Lab Sample ID: 23L2149-02RE3  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 12/07/2023 5:00  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Organics by GC**

EPA 608.3	alpha-BHC (alpha-Hexachlorocyclohexane) (Rerun)	A	<0.00300 U, B	ug/L	1	0.00300	0.0500	BGL2486	12/23/2023 02:51	ALA
EPA 608.3	Dieldrin (Rerun)	A	<0.00100 U, C+	ug/L	1	0.00100	0.0200	BGL2486	12/23/2023 02:51	ALA
EPA 608.3	Endosulfan I (Rerun)	A	<0.00400 U, C+	ug/L	1	0.00400	0.0100	BGL2486	12/23/2023 02:51	ALA
EPA 608.3	Endrin (Rerun)	A	<0.00200 U	ug/L	1	0.00200	0.0200	BGL2486	12/23/2023 02:51	ALA
EPA 608.3	Endrin aldehyde (Rerun)	A	<0.00700 U	ug/L	1	0.00700	0.100	BGL2486	12/23/2023 02:51	ALA
EPA 608.3	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE) (Rerun)	A	0.01103	ug/L	1	0.00100	0.0500	BGL2486	12/23/2023 02:51	ALA
EPA 608.3	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		124%	25.2-154					12/23/2023 02:51	
EPA 608.3	Surrogate: Decachlorobiphenyl-surr (Rerun)		92.6%	41.2-118					12/23/2023 02:51	

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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 Sampler

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-02RE4

Date Collected: 12/07/2023 5:00

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Organics by GC**

EPA 608.3	beta-BHC (beta-Hexachlorocyclohexane) (Rerun)	A	0.0173 V, J	ug/L	1	0.00600	0.0500	BGL2486	12/30/2023 09:48	ALA
EPA 608.3	Chlordane (Total) (Rerun)	A	0.0110 J	ug/L	1	0.00500	0.100	BGL2486	12/30/2023 09:48	ALA
EPA 608.3	Heptachlor (Rerun)	A	0.00734 J	ug/L	1	0.00200	0.0100	BGL2486	12/30/2023 09:48	ALA
EPA 608.3	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	145%		25.2-154					12/30/2023 09:48	
EPA 608.3	Surrogate: Decachlorobiphenyl-surr (Rerun)	111%		41.2-118					12/30/2023 09:48	

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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab  
Lab Sample ID: 23L2149-03  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 12/07/2023 7:30  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500 U	ug/L	1	0.00250	0.00500	BGL2651	12/20/2023 11:47	JKC
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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab Composite

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-04

Date Collected: 12/07/2023 7:30

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Volatile Organic Compounds by GCMS**

EPA 624.1	1,1,1-Trichloroethane	A	<10.0U	ug/L	1	0.622	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,1,2,2-Tetrachloroethane	A	<10.0U	ug/L	1	0.867	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,1,2-Trichloroethane	A	<10.0U	ug/L	1	0.789	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,1-Dichloroethane	A	<10.0U	ug/L	1	0.967	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,1-Dichloroethylene	A	<10.0U	ug/L	1	0.849	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,2-Dibromoethane (EDB, Ethylene dibromide)	A	<10.0U	ug/L	1	0.706	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,2-Dichlorobenzene (o-Dichlorobenzene)	A	<10.0U	ug/L	1	0.881	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,2-Dichloroethane (Ethylene dichloride)	A	<10.0U	ug/L	1	0.870	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,2-Dichloropropane	A	<10.0U	ug/L	1	0.854	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,3-Dichlorobenzene (m-Dichlorobenzene)	A	<10.0U	ug/L	1	0.717	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<10.0U	ug/L	1	0.641	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	2-Butanone (Methyl ethyl ketone, MEK)	A	<50.0U	ug/L	1	7.38	50.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	2-Chloroethyl vinyl ether	A	<10.0U	ug/L	1	3.14	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Acrolein (Propenal)	A	<50.0U	ug/L	1	5.68	50.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Acrylonitrile	A	<50.0U	ug/L	1	1.60	50.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Benzene	A	<10.0U	ug/L	1	0.604	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Bromodichloromethane	A	<10.0U	ug/L	1	0.727	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Bromoform	A	<10.0B, U	ug/L	1	0.678	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Carbon tetrachloride	A	<2.00U	ug/L	1	0.500	2.00	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Chlorobenzene	A	<10.0U	ug/L	1	0.724	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Chlorodibromomethane	A	<10.0B, U	ug/L	1	0.802	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Chloroethane (Ethyl chloride)	A	<50.0U	ug/L	1	1.30	50.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Chloroform	A	<10.0B, U	ug/L	1	0.688	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	cis-1,3-Dichloropropene	A	<10.0U	ug/L	1	0.580	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Ethylbenzene	A	<10.0U	ug/L	1	0.727	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	m+p-xylene	A	<10.0U	ug/L	1	1.89	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Methyl bromide (Bromomethane)	A	<50.0U	ug/L	1	1.42	50.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Methyl chloride (Chloromethane)	A	<50.0U	ug/L	1	0.765	50.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Methylene chloride (Dichloromethane)	A	<20.0U	ug/L	1	1.60	20.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Tetrachloroethylene (Perchloroethylene)	A	<10.0U	ug/L	1	0.703	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Toluene	A	<10.0U	ug/L	1	0.649	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Total Trihalomethanes (TTHMs)	A	<10.0B, U	ug/L	1	2.00	10.0	BGL1813	12/11/2023 17:53	EM

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**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: Outfall 001 3 Part Grab Composite (Continued)

Sample Matrix: Waste Water

Lab Sample ID: 23L2149-04

Date Collected: 12/07/2023 7:30

Timberlane - Permit Renewal

[none]

Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Volatile Organic Compounds by GCMS (Continued)**

EPA 624.1	trans-1,2-Dichloroethylene	A	<10.0U	ug/L	1	0.899	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	trans-1,3-Dichloropropylene	A	<10.0U	ug/L	1	0.496	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Trichloroethene (Trichloroethylene)	A	<10.0U	ug/L	1	0.744	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Vinyl chloride (Chloroethene)	A	<10.0U	ug/L	1	1.30	10.0	BGL1813	12/11/2023 17:53	EM
EPA 624.1	Surrogate: 4-Bromofluorobenzene-surr	103%		70-130					12/11/2023 17:53	
EPA 624.1	Surrogate: 1,2-Dichloroethane-d4-surr	98.7%		70-130					12/11/2023 17:53	
EPA 624.1	Surrogate: Dibromofluoromethane-surr	103%		70-130					12/11/2023 17:53	
EPA 624.1	Surrogate: Toluene-d8-surr	101%		70-130					12/11/2023 17:53	

\* A = Accredited, N = Not Accredited or Accreditation not available



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TCEQ T104704238-23-39

M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Sample Results**  
(Continued)

Client Sample ID: 18 Mohm DI  
Lab Sample ID: 23L2149-05  
Timberlane - Permit Renewal

[none]

Sample Matrix: Waste Water  
Date Collected: 12/07/2023 7:30  
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Metals, Total**

EPA 1631E	Mercury	A	<0.00500 U	ug/L	1	0.00250	0.00500	BGL2651	12/20/2023 11:42	JKC
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\* A = Accredited, N = Not Accredited or Accreditation not available



M.M.I.A., Inc.

P.O. Box 9

Spring, TX 77383

**Reported:**

01/04/2024 10:44

**Quality Control****Volatile Organic Compounds by GCMS**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1813 - EPA 624****Blank (BGL1813-BLK1)**

Prepared &amp; Analyzed: 12/11/2023

1,1,1-Trichloroethane	<2.00	U	2.00	ug/L						
1,1,1,2-Tetrachloroethane	<3.00	U	3.00	ug/L						
1,1,2-Trichloroethane	<2.00	U	2.00	ug/L						
1,1-Dichloroethane	<3.00	U	3.00	ug/L						
1,1-Dichloroethylene	<3.00	U	3.00	ug/L						
1,2-Dibromoethane (EDB, Ethylene dibromide)	<2.00	U	2.00	ug/L						
1,2-Dichlorobenzene (o-Dichlorobenzene)	<3.00	U	3.00	ug/L						
1,2-Dichloroethane (Ethylene dichloride)	<3.00	U	3.00	ug/L						
1,2-Dichloropropane	<3.00	U	3.00	ug/L						
1,3-Dichlorobenzene (m-Dichlorobenzene)	<2.00	U	2.00	ug/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<2.00	U	2.00	ug/L						
2-Butanone (Methyl ethyl ketone, MEK)	<22.0	U	22.0	ug/L						
2-Chloroethyl vinyl ether	<9.00	U	9.00	ug/L						
Acrolein (Propenal)	<17.0	U	17.0	ug/L						
Acrylonitrile	<5.00	U	5.00	ug/L						
Benzene	<2.00	U	2.00	ug/L						
Bromodichloromethane	<2.00	U	2.00	ug/L						
Bromoform	<2.00	U	2.00	ug/L						
Carbon tetrachloride	<1.00	U	1.00	ug/L						
Chlorobenzene	<2.00	U	2.00	ug/L						
Chlorodibromomethane	<2.00	U	2.00	ug/L						
Chloroethane (Ethyl chloride)	<4.00	U	4.00	ug/L						
Chloroform	3.00		2.00	ug/L						
cis-1,3-Dichloropropene	<2.00	U	2.00	ug/L						
Ethylbenzene	<2.00	U	2.00	ug/L						
m+p-xylene	<6.00	U	6.00	ug/L						
Methyl bromide (Bromomethane)	<4.00	U	4.00	ug/L						
Methyl chloride (Chloromethane)	<2.00	U	2.00	ug/L						
Methylene chloride (Dichloromethane)	<5.00	U	5.00	ug/L						
Tetrachloroethylene (Perchloroethylene)	<2.00	U	2.00	ug/L						
Toluene	<2.00	U	2.00	ug/L						
Total Trihalomethanes (TTHMs)	<10.0	U	10.0	ug/L						
trans-1,2-Dichloroethylene	<3.00	U	3.00	ug/L						
trans-1,3-Dichloropropylene	<1.00	U	1.00	ug/L						
Trichloroethene (Trichloroethylene)	<2.00	U	2.00	ug/L						
Vinyl chloride (Chloroethene)	<4.00	U	4.00	ug/L						
Surrogate: 1,2-Dichloroethane-d4-surr			48.8	ug/L	50.0		97.6	70-130		
Surrogate: Dibromofluoromethane-surr			52.6	ug/L	50.0		105	70-130		
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		99.9	70-130		





M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Volatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1813 - EPA 624 (Continued)</b>					Prepared & Analyzed: 12/11/2023					
<b>LCS (BGL1813-BS1)</b>										
1,1,1-Trichloroethane	38.9		2.00	ug/L	50.0		77.8	70-130		
1,1,2,2-Tetrachloroethane	35.8		3.00	ug/L	50.0		71.5	60-140		
1,1,2-Trichloroethane	37.2		2.00	ug/L	50.0		74.5	70-130		
1,1-Dichloroethane	39.0		3.00	ug/L	50.0		78.0	70-130		
1,1-Dichloroethylene	37.8		3.00	ug/L	50.0		75.6	50-150		
1,2-Dibromoethane (EDB, Ethylene dibromide)	37.2		2.00	ug/L	50.0		74.4	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	36.7		3.00	ug/L	50.0		73.3	65-135		
1,2-Dichloroethane (Ethylene dichloride)	36.9		3.00	ug/L	50.0		73.7	70-130		
1,2-Dichloropropane	38.3		3.00	ug/L	50.0		76.7	35-165		
1,3-Dichlorobenzene (m-Dichlorobenzene)	37.1		2.00	ug/L	50.0		74.1	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	38.0		2.00	ug/L	50.0		76.0	65-135		
2-Butanone (Methyl ethyl ketone, MEK)	386		22.0	ug/L	500		77.2	70-130		
2-Chloroethyl vinyl ether	39.4		9.00	ug/L	50.0		78.7	0-225		
Acrolein (Propenal)	181		17.0	ug/L	250		72.6	60-140		
Acrylonitrile	37.8		5.00	ug/L	50.0		75.7	60-140		
Benzene	38.4		2.00	ug/L	50.0		76.9	65-135		
Bromodichloromethane	37.5		2.00	ug/L	50.0		75.0	65-135		
Bromoform	37.2		2.00	ug/L	50.0		74.3	70-130		
Carbon tetrachloride	38.5		1.00	ug/L	50.0		77.0	70-130		
Chlorobenzene	39.0		2.00	ug/L	50.0		78.1	65-135		
Chlorodibromomethane	37.6		2.00	ug/L	50.0		75.1	70-135		
Chloroethane (Ethyl chloride)	39.0		4.00	ug/L	50.0		78.1	40-160		
Chloroform	30.2	J1	2.00	ug/L	50.0		60.4	70-135		
cis-1,3-Dichloropropene	38.1		2.00	ug/L	50.0		76.2	25-175		
Ethylbenzene	39.4		2.00	ug/L	50.0		78.9	60-140		
m+p-xylene	77.9		6.00	ug/L	100		77.9	70-130		
Methyl bromide (Bromomethane)	36.9		4.00	ug/L	50.0		73.8	15-185		
Methyl chloride (Chloromethane)	35.2		2.00	ug/L	50.0		70.3	0-205		
Methylene chloride (Dichloromethane)	38.0		5.00	ug/L	50.0		75.9	60-140		
Tetrachloroethylene (Perchloroethylene)	37.5		2.00	ug/L	50.0		75.0	70-130		
Toluene	38.5		2.00	ug/L	50.0		76.9	70-130		
Total Trihalomethanes (TTHMs)	142		10.0	ug/L	200		71.2	70-130		
trans-1,2-Dichloroethylene	38.3		3.00	ug/L	50.0		76.6	70-130		
trans-1,3-Dichloropropylene	39.0		1.00	ug/L	50.0		78.0	50-150		
Trichloroethene (Trichloroethylene)	40.1		2.00	ug/L	50.0		80.1	65-135		
Vinyl chloride (Chloroethene)	36.6		4.00	ug/L	50.0		73.2	5-195		
Surrogate: 1,2-Dichloroethane-d4-surr			48.3	ug/L	50.0		96.6	70-130		
Surrogate: Dibromofluoromethane-surr			48.5	ug/L	50.0		97.0	70-130		
Surrogate: Toluene-d8-surr			51.8	ug/L	50.0		104	70-130		

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Volatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1813 - EPA 624 (Continued)</b>										
<b>LCS Dup (BGL1813-BSD1)</b>					Prepared & Analyzed: 12/11/2023					
1,1,1-Trichloroethane	39.4		2.00	ug/L	50.0		78.8	70-130	1.22	36
1,1,2,2-Tetrachloroethane	38.4		3.00	ug/L	50.0		76.7	60-140	6.97	61
1,1,2-Trichloroethane	39.0		2.00	ug/L	50.0		78.0	70-130	4.63	45
1,1-Dichloroethane	39.6		3.00	ug/L	50.0		79.2	70-130	1.50	40
1,1-Dichloroethylene	38.0		3.00	ug/L	50.0		76.1	50-150	0.700	32
1,2-Dibromoethane (EDB, Ethylene dibromide)	39.1		2.00	ug/L	50.0		78.2	70-130	4.99	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	39.8		3.00	ug/L	50.0		79.7	65-135	8.31	57
1,2-Dichloroethane (Ethylene dichloride)	38.4		3.00	ug/L	50.0		76.9	70-130	4.18	49
1,2-Dichloropropane	39.7		3.00	ug/L	50.0		79.4	35-165	3.47	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	40.6		2.00	ug/L	50.0		81.2	70-130	9.08	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	41.3		2.00	ug/L	50.0		82.5	65-135	8.26	57
2-Butanone (Methyl ethyl ketone, MEK)	394		22.0	ug/L	500		78.8	70-130	2.07	30
2-Chloroethyl vinyl ether	41.7		9.00	ug/L	50.0		83.3	0-225	5.66	71
Acrolein (Propenal)	191		17.0	ug/L	250		76.4	60-140	5.11	60
Acrylonitrile	41.5		5.00	ug/L	50.0		83.0	60-140	9.22	60
Benzene	39.6		2.00	ug/L	50.0		79.2	65-135	2.98	61
Bromodichloromethane	39.7		2.00	ug/L	50.0		79.4	65-135	5.68	56
Bromoform	39.7		2.00	ug/L	50.0		79.5	70-130	6.71	42
Carbon tetrachloride	39.7		1.00	ug/L	50.0		79.4	70-130	3.08	41
Chlorobenzene	40.1		2.00	ug/L	50.0		80.2	65-135	2.66	53
Chlorodibromomethane	38.3		2.00	ug/L	50.0		76.6	70-135	1.97	50
Chloroethane (Ethyl chloride)	39.7		4.00	ug/L	50.0		79.4	40-160	1.64	78
Chloroform	32.1	J1	2.00	ug/L	50.0		64.2	70-135	6.05	54
cis-1,3-Dichloropropene	40.7		2.00	ug/L	50.0		81.5	25-175	6.75	58
Ethylbenzene	40.1		2.00	ug/L	50.0		80.2	60-140	1.65	63
m+p-xylene	80.9		6.00	ug/L	100		80.9	70-130	3.82	30
Methyl bromide (Bromomethane)	38.0		4.00	ug/L	50.0		76.0	15-185	2.83	61
Methyl chloride (Chloromethane)	36.1		2.00	ug/L	50.0		72.3	0-205	2.74	60
Methylene chloride (Dichloromethane)	39.5		5.00	ug/L	50.0		78.9	60-140	3.85	28
Tetrachloroethylene (Perchloroethylene)	38.3		2.00	ug/L	50.0		76.6	70-130	2.11	39
Toluene	40.1		2.00	ug/L	50.0		80.3	70-130	4.27	41
Total Trihalomethanes (TTHMs)	150		10.0	ug/L	200		74.9	70-130	5.07	30
trans-1,2-Dichloroethylene	39.5		3.00	ug/L	50.0		78.9	70-130	3.01	45
trans-1,3-Dichloropropylene	40.3		1.00	ug/L	50.0		80.5	50-150	3.27	86
Trichloroethene (Trichloroethylene)	40.7		2.00	ug/L	50.0		81.5	65-135	1.64	48
Vinyl chloride (Chloroethene)	37.6		4.00	ug/L	50.0		75.3	5-195	2.76	66
Surrogate: 1,2-Dichloroethane-d4-surr			47.1	ug/L	50.0		94.1	70-130		
Surrogate: Dibromofluoromethane-surr			48.8	ug/L	50.0		97.5	70-130		
Surrogate: Toluene-d8-surr			50.9	ug/L	50.0		102	70-130		



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Volatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1813 - EPA 624 (Continued)</b>										
<b>Matrix Spike (BGL1813-MS1)</b>			<b>Source: 23L2149-04</b>			<b>Prepared &amp; Analyzed: 12/11/2023</b>				
1,1,1-Trichloroethane	43.9		2.00	ug/L	50.0	<2.00	87.9	52-162		
1,1,2,2-Tetrachloroethane	39.1		3.00	ug/L	50.0	<3.00	78.3	46-157		
1,1,2-Trichloroethane	41.0		2.00	ug/L	50.0	<2.00	81.9	52-150		
1,1-Dichloroethane	42.6		3.00	ug/L	50.0	<3.00	85.2	59-155		
1,1-Dichloroethylene	42.7		3.00	ug/L	50.0	<3.00	85.4	0-234		
1,2-Dibromoethane (EDB, Ethylene dibromide)	40.8		2.00	ug/L	50.0	<2.00	81.6	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	41.6		3.00	ug/L	50.0	<3.00	83.3	18-190		
1,2-Dichloroethane (Ethylene dichloride)	40.9		3.00	ug/L	50.0	<3.00	81.8	49-155		
1,2-Dichloropropane	42.5		3.00	ug/L	50.0	<3.00	85.1	0-210		
1,3-Dichlorobenzene (m-Dichlorobenzene)	42.2		2.00	ug/L	50.0	<2.00	84.4	59-156		
1,4-Dichlorobenzene (p-Dichlorobenzene)	43.4		2.00	ug/L	50.0	<2.00	86.7	18-190		
2-Butanone (Methyl ethyl ketone, MEK)	419		22.0	ug/L	500	<22.0	83.7	70-130		
2-Chloroethyl vinyl ether	46.6		9.00	ug/L	50.0	<9.00	93.1	0-305		
Acrolein (Propenal)	217		17.0	ug/L	250	<17.0	87.0	40-160		
Acrylonitrile	42.7		5.00	ug/L	50.0	<5.00	85.5	40-160		
Benzene	43.5		2.00	ug/L	50.0	<2.00	86.9	37-151		
Bromodichloromethane	41.7		2.00	ug/L	50.0	<2.00	83.4	35-155		
Bromoform	40.3		2.00	ug/L	50.0	<2.00	80.7	45-169		
Carbon tetrachloride	43.4		1.00	ug/L	50.0	<1.00	86.8	70-140		
Chlorobenzene	43.1		2.00	ug/L	50.0	<2.00	86.2	37-160		
Chlorodibromomethane	40.7		2.00	ug/L	50.0	<2.00	81.3	53-149		
Chloroethane (Ethyl chloride)	48.3		4.00	ug/L	50.0	<4.00	96.6	14-230		
Chloroform	24.2	J1	2.00	ug/L	50.0	<2.00	48.4	51-138		
cis-1,3-Dichloropropene	43.0		2.00	ug/L	50.0	<2.00	86.1	0-227		
Ethylbenzene	43.2		2.00	ug/L	50.0	<2.00	86.4	37-162		
m+p-xylene	85.1		6.00	ug/L	100	<6.00	85.1	70-130		
Methyl bromide (Bromomethane)	44.8		4.00	ug/L	50.0	<4.00	89.7	0-242		
Methyl chloride (Chloromethane)	43.1		2.00	ug/L	50.0	<2.00	86.3	0-273		
Methylene chloride (Dichloromethane)	41.9		5.00	ug/L	50.0	<5.00	83.7	0-221		
Tetrachloroethylene (Perchloroethylene)	40.0		2.00	ug/L	50.0	<2.00	80.0	64-148		
Toluene	43.3		2.00	ug/L	50.0	<2.00	86.7	47-150		
Total Trihalomethanes (TTHMs)	147		10.0	ug/L	200	<10.0	73.5	70-130		
trans-1,2-Dichloroethylene	42.4		3.00	ug/L	50.0	<3.00	84.8	54-156		
trans-1,3-Dichloropropylene	41.8		1.00	ug/L	50.0	<1.00	83.5	17-183		
Trichloroethene (Trichloroethylene)	44.6		2.00	ug/L	50.0	<2.00	89.3	70-157		
Vinyl chloride (Chloroethene)	45.2		4.00	ug/L	50.0	<4.00	90.5	0-251		
Surrogate: 1,2-Dichloroethane-d4-surr			47.1	ug/L	50.0		94.1	70-130		
Surrogate: Dibromofluoromethane-surr			48.3	ug/L	50.0		96.6	70-130		
Surrogate: Toluene-d8-surr			49.8	ug/L	50.0		99.7	70-130		





M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Volatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1813 - EPA 624 (Continued)</b>										
<b>Matrix Spike Dup (BGL1813-MSD1)</b>			<b>Source: 23L2149-04</b>		<b>Prepared &amp; Analyzed: 12/11/2023</b>					
1,1,1-Trichloroethane	39.3		2.00	ug/L	50.0	<2.00	78.6	52-162	11.1	36
1,1,2,2-Tetrachloroethane	34.9		3.00	ug/L	50.0	<3.00	69.8	46-157	11.5	61
1,1,2-Trichloroethane	37.3		2.00	ug/L	50.0	<2.00	74.7	52-150	9.26	45
1,1-Dichloroethane	38.4		3.00	ug/L	50.0	<3.00	76.8	59-155	10.4	40
1,1-Dichloroethylene	38.2		3.00	ug/L	50.0	<3.00	76.4	0-234	11.2	32
1,2-Dibromoethane (EDB, Ethylene dibromide)	36.1		2.00	ug/L	50.0	<2.00	72.2	70-130	12.1	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	38.8		3.00	ug/L	50.0	<3.00	77.6	18-190	7.11	57
1,2-Dichloroethane (Ethylene dichloride)	35.9		3.00	ug/L	50.0	<3.00	71.7	49-155	13.1	49
1,2-Dichloropropane	38.2		3.00	ug/L	50.0	<3.00	76.4	0-210	10.8	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	39.0		2.00	ug/L	50.0	<2.00	77.9	59-156	7.93	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	40.6		2.00	ug/L	50.0	<2.00	81.1	18-190	6.71	57
2-Butanone (Methyl ethyl ketone, MEK)	371		22.0	ug/L	500	<22.0	74.2	70-130	12.1	30
2-Chloroethyl vinyl ether	40.6		9.00	ug/L	50.0	<9.00	81.2	0-305	13.7	71
Acrolein (Propenal)	182		17.0	ug/L	250	<17.0	72.7	40-160	17.8	60
Acrylonitrile	37.8		5.00	ug/L	50.0	<5.00	75.6	40-160	12.2	60
Benzene	38.6		2.00	ug/L	50.0	<2.00	77.3	37-151	11.7	61
Bromodichloromethane	37.5		2.00	ug/L	50.0	<2.00	75.0	35-155	10.5	56
Bromoform	37.7		2.00	ug/L	50.0	<2.00	75.4	45-169	6.70	42
Carbon tetrachloride	38.9		1.00	ug/L	50.0	<1.00	77.7	70-140	11.0	41
Chlorobenzene	39.4		2.00	ug/L	50.0	<2.00	78.8	37-160	9.02	53
Chlorodibromomethane	36.6		2.00	ug/L	50.0	<2.00	73.2	53-149	10.6	50
Chloroethane (Ethyl chloride)	41.8		4.00	ug/L	50.0	<4.00	83.5	14-230	14.5	78
Chloroform	19.5	J1	2.00	ug/L	50.0	<2.00	39.0	51-138	21.5	54
cis-1,3-Dichloropropene	38.4		2.00	ug/L	50.0	<2.00	76.9	0-227	11.3	58
Ethylbenzene	39.2		2.00	ug/L	50.0	<2.00	78.5	37-162	9.60	63
m+p-xylene	76.9		6.00	ug/L	100	<6.00	76.9	70-130	10.1	30
Methyl bromide (Bromomethane)	39.3		4.00	ug/L	50.0	<4.00	78.5	0-242	13.2	61
Methyl chloride (Chloromethane)	37.9		2.00	ug/L	50.0	<2.00	75.7	0-273	13.0	60
Methylene chloride (Dichloromethane)	37.9		5.00	ug/L	50.0	<5.00	75.8	0-221	9.91	28
Tetrachloroethylene (Perchloroethylene)	35.7		2.00	ug/L	50.0	<2.00	71.4	64-148	11.4	39
Toluene	37.9		2.00	ug/L	50.0	<2.00	75.9	47-150	13.3	41
Total Trihalomethanes (TTHMs)	131	J1	10.0	ug/L	200	<10.0	65.7	70-130	11.2	30
trans-1,2-Dichloroethylene	38.7		3.00	ug/L	50.0	<3.00	77.4	54-156	9.09	45
trans-1,3-Dichloropropylene	37.5		1.00	ug/L	50.0	<1.00	74.9	17-183	10.9	86
Trichloroethene (Trichloroethylene)	40.1		2.00	ug/L	50.0	<2.00	80.3	70-157	10.6	48
Vinyl chloride (Chloroethene)	40.0		4.00	ug/L	50.0	<4.00	80.0	0-251	12.3	66
Surrogate: 1,2-Dichloroethane-d4-surr			47.0	ug/L	50.0		94.0	70-130		
Surrogate: Dibromofluoromethane-surr			48.4	ug/L	50.0		96.8	70-130		
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		100	70-130		

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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1432 - SW-3511</b>										
<b>Blank (BGL1432-BLK1)</b>										
					Prepared: 12/8/2023 Analyzed: 12/12/2023					
Nonylphenol	<333	U	333	ug/L						
Surrogate: n-NP-surr			7.29	ug/L	8.00		91.2	60-140		
<b>LCS (BGL1432-BS1)</b>										
					Prepared: 12/8/2023 Analyzed: 12/12/2023					
Nonylphenol	36.8	U	333	ug/L	40.0		92.0	56-112		
Surrogate: n-NP-surr			7.15	ug/L	8.00		89.4	60-140		
<b>LCS Dup (BGL1432-BSD1)</b>										
					Prepared: 12/8/2023 Analyzed: 12/12/2023					
Nonylphenol	29.9	U	333	ug/L	40.0		74.9	56-112	20.5	22
Surrogate: n-NP-surr			5.76	ug/L	8.00		72.0	60-140		
<b>Matrix Spike (BGL1432-MS1)</b>										
			<b>Source: 23L2149-02</b>		Prepared: 12/8/2023 Analyzed: 12/12/2023					
Nonylphenol	34.1	U	333	ug/L	40.0	<333	85.2	56-112		
Surrogate: n-NP-surr			6.92	ug/L	8.00		86.5	60-140		
<b>Matrix Spike Dup (BGL1432-MSD1)</b>										
			<b>Source: 23L2149-02</b>		Prepared: 12/8/2023 Analyzed: 12/12/2023					
Nonylphenol	38.1	U	333	ug/L	40.0	<333	95.3	56-112	11.2	22
Surrogate: n-NP-surr			6.95	ug/L	8.00		86.9	60-140		

**Batch: BGL1922 - EPA 625 LLE**

<b>Blank (BGL1922-BLK1)</b>					Prepared: 12/12/2023 Analyzed: 12/15/2023					
1,2,4,5-Tetrachlorobenzene	<0.300	U	0.300	ug/L						
1,2,4-Trichlorobenzene	<0.300	U	0.300	ug/L						
1,2-Diphenylhydrazine	<0.750	U	0.750	ug/L						
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	<0.400	U	0.400	ug/L						
2,4,5-Trichlorophenol	<0.700	U	0.700	ug/L						
2,4,6-Trichlorophenol	<1.20	U	1.20	ug/L						
2,4-Dichlorophenol	<0.800	U	0.800	ug/L						
2,4-Dimethylphenol	<0.900	U	0.900	ug/L						
2,4-Dinitrophenol	<8.60	U	8.60	ug/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.200	U	0.200	ug/L						
2,6-Dinitrotoluene (2,6-DNT)	<1.80	U	1.80	ug/L						
2-Chloronaphthalene	<0.400	U	0.400	ug/L						
2-Chlorophenol	<0.500	U	0.500	ug/L						
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	<1.60	U	1.60	ug/L						
2-Nitrophenol	<0.700	U	0.700	ug/L						
3,4-Methylphenol	<1.40	U	1.40	ug/L						
4-Bromophenyl phenyl ether (BDE-3)	<0.300	U	0.300	ug/L						
4-Chloro-3-methylphenol	<0.700	U	0.700	ug/L						
4-Chlorophenyl phenylether	<0.700	U	0.700	ug/L						
4-Nitrophenol	<7.20	U	7.20	ug/L						
Acenaphthene	<0.300	U	0.300	ug/L						
Acenaphthylene	<0.200	U	0.200	ug/L						
Anthracene	<0.200	U	0.200	ug/L						

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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**Blank (BGL1922-BLK1)**

Prepared: 12/12/2023 Analyzed: 12/15/2023

Benzo(a)anthracene	<0.300	U	0.300	ug/L						
Benzo(a)pyrene	<0.500	U	0.500	ug/L						
benzo(b&k)fluoranthene	<0.400	U	0.400	ug/L						
Benzo(g,h,i)perylene	<0.400	U	0.400	ug/L						
bis(2-Chloroethoxy)methane	<0.400	U	0.400	ug/L						
bis(2-Chloroethyl) ether	<0.600	U	0.600	ug/L						
Bis(2-ethylhexyl )phthalate	<1.50	U	1.50	ug/L						
Butyl benzyl phthalate	<0.400	U	0.400	ug/L						
Chrysene	<0.200	U	0.200	ug/L						
Dibenzo(a,h)anthracene	<0.500	U	0.500	ug/L						
Diethyl phthalate	0.557		0.500	ug/L						
Dimethyl phthalate	<0.300	U	0.300	ug/L						
Di-n-butyl phthalate	<1.60	U	1.60	ug/L						
Di-n-octyl phthalate	<0.500	U	0.500	ug/L						
Fluoranthene	<0.300	U	0.300	ug/L						
Fluorene	<0.200	U	0.200	ug/L						
Hexachlorobenzene	<0.200	U	0.200	ug/L						
Hexachlorobutadiene	<0.300	U	0.300	ug/L						
Hexachlorocyclopentadiene	<0.750	U	0.750	ug/L						
Hexachloroethane	<0.200	U	0.200	ug/L						
Hexachlorophene	<1.10	U	1.10	ug/L						
Indeno(1,2,3-cd) pyrene	<0.400	U	0.400	ug/L						
Isophorone	<0.300	U	0.300	ug/L						
Naphthalene	<0.300	U	0.300	ug/L						
Nitrobenzene	<0.400	U	0.400	ug/L						
n-Nitrosodimethylamine	<3.80	U	3.80	ug/L						
n-Nitroso-di-n-butylamine	<5.70	U	5.70	ug/L						
n-Nitrosodi-n-propylamine	<1.40	U	1.40	ug/L						
n-Nitrosodiphenylamine	<0.200	U	0.200	ug/L						
Pentachlorobenzene	<0.200	U	0.200	ug/L						
Pentachlorophenol	<1.40	U	1.40	ug/L						
Phenanthrene	<0.300	U	0.300	ug/L						
Phenol, Total	<1.50	U	1.50	ug/L						
Pyrene	<0.300	U	0.300	ug/L						
Pyridine	<13.3	U	13.3	ug/L						



M.M.I.A., Inc.  
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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**Blank (BGL1922-BLK2)**

Prepared: 12/12/2023 Analyzed: 12/20/2023

n-Nitrosodiethylamine	<20.0	U	20.0	ug/L
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**Blank (BGL1922-BLK3)**

Prepared: 12/12/2023 Analyzed: 12/21/2023

3,3'-Dichlorobenzidine	<5.00	U	5.00	ug/L
Benzidine	<50.0	U	50.0	ug/L

**BENZ LCS (BGL1922-BS1)**

Prepared: 12/12/2023 Analyzed: 12/21/2023

3,3'-Dichlorobenzidine	<4.00	U	4.00	ug/L	50.0		0-262
Benzidine	<16.0	U	16.0	ug/L	50.2		0-131
Surrogate: 2,4,6-Tribromophenol-surr			4.97	ug/L	4.00	124	33.6-139
Surrogate: 2-Fluorobiphenyl-surr			1.69	ug/L	2.00	84.7	32.2-138
Surrogate: 2-Fluorophenol-surr			2.38	ug/L	4.00	59.5	32.7-137
Surrogate: Nitrobenzene-d5-surr			1.47	ug/L	2.00	73.6	31.2-136
Surrogate: Phenol-d5-surr			2.58	ug/L	4.00	64.4	28.9-155
Surrogate: p-Terphenyl-d14-surr	S		2.42	ug/L	2.00	121	37.6-117

**LCS (BGL1922-BS2)**

Prepared: 12/12/2023 Analyzed: 12/15/2023

1,2,4,5-Tetrachlorobenzene	1.39		0.300	ug/L	2.00	69.7	60-140
1,2,4-Trichlorobenzene	1.29		0.300	ug/L	2.00	64.5	44-142
1,2-Diphenylhydrazine	1.56		0.750	ug/L	2.00	77.9	60-140
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.60		0.400	ug/L	2.00	80.2	60-140
2,4,5-Trichlorophenol	3.61		0.700	ug/L	4.00	90.4	60-140
2,4,6-Trichlorophenol	3.93		1.20	ug/L	4.00	98.2	37-144
2,4-Dichlorophenol	3.66		0.800	ug/L	4.00	91.5	39-135
2,4-Dimethylphenol	3.45		0.900	ug/L	4.00	86.2	32-120
2,4-Dinitrophenol	9.08		8.60	ug/L	10.0	90.8	0-191
2,4-Dinitrotoluene (2,4-DNT)	1.71		0.200	ug/L	2.00	85.5	39-139
2,6-Dinitrotoluene (2,6-DNT)	1.97		1.80	ug/L	2.00	98.6	50-158
2-Chloronaphthalene	1.50		0.400	ug/L	2.00	74.8	60-120
2-Chlorophenol	2.36		0.500	ug/L	4.00	58.9	23-134
2-Methyl-4,6-dinitrophenol	3.76		1.60	ug/L	4.00	94.1	0-181
(4,6-Dinitro-2-methylph							
2-Nitrophenol	3.55		0.700	ug/L	4.00	88.9	29-182
3,4-Methylphenol	6.22		1.40	ug/L	8.00	77.8	60-140
4-Bromophenyl phenyl ether (BDE-3)	1.57		0.300	ug/L	2.00	78.4	53-127
4-Chloro-3-methylphenol	3.45		0.700	ug/L	4.00	86.4	22-147
4-Chlorophenyl phenylether	1.50		0.700	ug/L	2.00	75.2	25-158
4-Nitrophenol	8.53		7.20	ug/L	10.0	85.3	0-132
Acenaphthene	1.56		0.300	ug/L	2.00	77.9	47-145
Acenaphthylene	1.62		0.200	ug/L	2.00	80.9	33-145
Anthracene	1.61		0.200	ug/L	2.00	80.3	27-133
Benzo(a)anthracene	2.15		0.300	ug/L	2.00	108	33-143
Benzo(a)pyrene	1.72		0.500	ug/L	2.00	85.8	17-163
benzo(b&k)fluoranthene	3.83		0.400	ug/L	4.00	95.6	60-140
Benzo(g,h,i)perylene	1.85		0.400	ug/L	2.00	92.7	0-219
bis(2-Chloroethoxy)methane	1.76		0.400	ug/L	2.00	88.0	33-184
bis(2-Chloroethyl) ether	1.55		0.600	ug/L	2.00	77.4	12-158

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Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1922 - EPA 625 LLE (Continued)</b>										
<b>LCS (BGL1922-BS2)</b>					Prepared: 12/12/2023 Analyzed: 12/15/2023					
Bis(2-ethylhexyl )phthalate	2.48		1.50	ug/L	2.00		124	8-158		
Butyl benzyl phthalate	1.97		0.400	ug/L	2.00		98.4	0-152		
Chrysene	1.26		0.200	ug/L	2.00		63.2	17-168		
Dibenzo(a,h)anthracene	1.69		0.500	ug/L	2.00		84.4	0-227		
Diethyl phthalate	2.11		0.500	ug/L	2.00		106	0-120		
Dimethyl phthalate	1.88		0.300	ug/L	2.00		93.9	0-120		
Di-n-butyl phthalate	1.41	U	1.60	ug/L	2.00		70.6	1-120		
Di-n-octyl phthalate	1.97		0.500	ug/L	2.00		98.5	4-146		
Fluoranthene	1.64		0.300	ug/L	2.00		82.0	26-137		
Fluorene	1.70		0.200	ug/L	2.00		84.8	59-121		
Hexachlorobenzene	1.32		0.200	ug/L	2.00		66.2	0-152		
Hexachlorobutadiene	1.10		0.300	ug/L	2.00		54.8	24-120		
Hexachlorocyclopentadiene	1.84		0.750	ug/L	2.00		91.9	60-140		
Hexachloroethane	1.13		0.200	ug/L	2.00		56.7	40-120		
Hexachlorophene	3.03		1.10	ug/L	4.00		75.7	60-140		
Indeno(1,2,3-cd) pyrene	1.91		0.400	ug/L	2.00		95.3	0-171		
Isophorone	1.74		0.300	ug/L	2.00		87.0	21-196		
Naphthalene	1.66		0.300	ug/L	2.00		83.0	21-133		
Nitrobenzene	1.79		0.400	ug/L	2.00		89.4	35-180		
n-Nitrosodimethylamine	1.57	U	3.80	ug/L	10.0		15.7	4.18-37.2		
n-Nitroso-di-n-butylamine	1.91	U	5.70	ug/L	2.00		95.4	60-140		
n-Nitrosodi-n-propylamine	1.94		1.40	ug/L	2.00		96.8	0-230		
n-Nitrosodiphenylamine	0.556	J1	0.200	ug/L	2.00		27.8	60-140		
Pentachlorobenzene	1.39		0.200	ug/L	2.00		69.4	60-140		
Pentachlorophenol	3.71		1.40	ug/L	4.00		92.8	14-176		
Phenanthrene	1.71		0.300	ug/L	2.00		85.5	54-120		
Phenol, Total	3.84		1.50	ug/L	4.00		95.9	5-120		
Pyrene	1.55		0.300	ug/L	2.00		77.7	52-120		
Pyridine	<13.3	U	13.3	ug/L	10.0			0-137		
Surrogate: 2,4,6-Tribromophenol-surr			3.26	ug/L	4.00		81.4	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.42	ug/L	2.00		70.9	32.2-138		
Surrogate: 2-Fluorophenol-surr			2.91	ug/L	4.00		72.8	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.60	ug/L	2.00		79.9	31.2-136		
Surrogate: Phenol-d5-surr			3.65	ug/L	4.00		91.3	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.88	ug/L	2.00		94.2	37.6-117		





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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**LCS (BGL1922-BS3)**

Prepared: 12/12/2023 Analyzed: 12/20/2023

n-Nitrosodiethylamine	1.35	U	20.0	ug/L	2.00		67.4	60-140		
Surrogate: 2,4,6-Tribromophenol-surr			3.36	ug/L	4.00		84.0	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.45	ug/L	2.00		72.6	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.43	ug/L	4.00		85.7	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.65	ug/L	2.00		82.3	31.2-136		
Surrogate: Phenol-d5-surr			3.81	ug/L	4.00		95.3	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.85	ug/L	2.00		92.7	37.6-117		

**BENZ LCSD (BGL1922-BSD1)**

Prepared: 12/12/2023 Analyzed: 12/21/2023

3,3'-Dichlorobenzidine	32.3	J1	5.00	ug/L	50.0		64.7	0-262	164	108
Benidine	<50.0	J1, U	50.0	ug/L	50.2			0-131	200	40
Surrogate: 2,4,6-Tribromophenol-surr			5.13	ug/L	4.00		128	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.63	ug/L	2.00		81.5	32.2-138		
Surrogate: 2-Fluorophenol-surr			2.47	ug/L	4.00		61.8	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.51	ug/L	2.00		75.4	31.2-136		
Surrogate: Phenol-d5-surr			2.86	ug/L	4.00		71.4	28.9-155		
Surrogate: p-Terphenyl-d14-surr			2.26	ug/L	2.00		113	37.6-117		

**LCS Dup (BGL1922-BSD2)**

Prepared: 12/12/2023 Analyzed: 12/15/2023

1,2,4,5-Tetrachlorobenzene	1.30		0.300	ug/L	2.00		65.2	60-140	6.73	40
1,2,4-Trichlorobenzene	1.36		0.300	ug/L	2.00		68.2	44-142	5.61	50
1,2-Diphenylhydrazine	1.43		0.750	ug/L	2.00		71.6	60-140	8.42	40
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.63		0.400	ug/L	2.00		81.3	60-140	1.33	40
2,4,5-Trichlorophenol	3.84		0.700	ug/L	4.00		96.1	60-140	6.17	40
2,4,6-Trichlorophenol	3.97		1.20	ug/L	4.00		99.2	37-144	1.10	58
2,4-Dichlorophenol	3.90		0.800	ug/L	4.00		97.4	39-135	6.25	50
2,4-Dimethylphenol	1.85	J1	0.900	ug/L	4.00		46.4	32-120	60.1	58
2,4-Dinitrophenol	8.47	U	8.60	ug/L	10.0		84.7	0-191	6.92	132
2,4-Dinitrotoluene (2,4-DNT)	1.82		0.200	ug/L	2.00		90.9	39-139	6.14	42
2,6-Dinitrotoluene (2,6-DNT)	1.94		1.80	ug/L	2.00		97.0	50-158	1.62	48
2-Chloronaphthalene	1.60		0.400	ug/L	2.00		79.9	60-120	6.56	24
2-Chlorophenol	2.64		0.500	ug/L	4.00		66.0	23-134	11.4	61
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	3.48		1.60	ug/L	4.00		86.9	0-181	7.93	203
2-Nitrophenol	3.72		0.700	ug/L	4.00		93.1	29-182	4.64	55
3,4-Methylphenol	5.44		1.40	ug/L	8.00		68.0	60-140	13.5	40
4-Bromophenyl phenyl ether (BDE-3)	1.63		0.300	ug/L	2.00		81.5	53-127	3.88	43
4-Chloro-3-methylphenol	3.40		0.700	ug/L	4.00		85.1	22-147	1.45	73
4-Chlorophenyl phenylether	1.61		0.700	ug/L	2.00		80.7	25-158	7.04	61
4-Nitrophenol	9.60		7.20	ug/L	10.0		96.0	0-132	11.8	131
Acenaphthene	1.40		0.300	ug/L	2.00		69.9	47-145	10.8	48
Acenaphthylene	0.712	J1	0.200	ug/L	2.00		35.6	33-145	77.8	74
Anthracene	0.624	J1	0.200	ug/L	2.00		31.2	27-133	88.0	66
Benzo(a)anthracene	1.49		0.300	ug/L	2.00		74.4	33-143	36.5	53
Benzo(a)pyrene	0.161	J1, U	0.500	ug/L	2.00		8.03	17-163	166	72
benzo(b&k)fluoranthene	3.53		0.400	ug/L	4.00		88.3	60-140	7.97	40

\* A = Accredited, N = Not Accredited or Accreditation not available



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**LCS Dup (BGL1922-BSD2)**

Prepared: 12/12/2023 Analyzed: 12/15/2023

Benzo(g,h,i)perylene	0.397	J1, U	0.400	ug/L	2.00		19.9	0-219	129	97
bis(2-Chloroethoxy)methane	1.77		0.400	ug/L	2.00		88.5	33-184	0.479	54
bis(2-Chloroethyl) ether	1.54		0.600	ug/L	2.00		77.0	12-158	0.441	108
Bis(2-ethylhexyl) phthalate	2.58		1.50	ug/L	2.00		129	8-158	3.88	82
Butyl benzyl phthalate	2.11		0.400	ug/L	2.00		105	0-152	6.90	60
Chrysene	1.12		0.200	ug/L	2.00		56.1	17-168	11.9	87
Dibenzo(a,h)anthracene	1.51		0.500	ug/L	2.00		75.4	0-227	11.2	126
Diethyl phthalate	2.25		0.500	ug/L	2.00		113	0-120	6.53	100
Dimethyl phthalate	1.96		0.300	ug/L	2.00		98.2	0-120	4.45	183
Di-n-butyl phthalate	1.54	U	1.60	ug/L	2.00		76.8	1-120	8.38	47
Di-n-octyl phthalate	2.09		0.500	ug/L	2.00		104	4-146	5.86	69
Fluoranthene	1.68		0.300	ug/L	2.00		83.9	26-137	2.20	66
Fluorene	1.75		0.200	ug/L	2.00		87.7	59-121	3.41	38
Hexachlorobenzene	1.43		0.200	ug/L	2.00		71.6	0-152	7.79	55
Hexachlorobutadiene	1.16		0.300	ug/L	2.00		57.9	24-120	5.48	62
Hexachlorocyclopentadiene	1.84		0.750	ug/L	2.00		91.8	60-140	0.113	40
Hexachloroethane	1.13		0.200	ug/L	2.00		56.6	40-120	0.170	52
Hexachlorophene	2.80		1.10	ug/L	4.00		70.0	60-140	7.88	40
Indeno(1,2,3-cd) pyrene	1.42		0.400	ug/L	2.00		70.8	0-171	29.5	99
Isophorone	1.75		0.300	ug/L	2.00		87.4	21-196	0.407	93
Naphthalene	1.64		0.300	ug/L	2.00		81.8	21-133	1.48	65
Nitrobenzene	1.87		0.400	ug/L	2.00		93.5	35-180	4.53	62
n-Nitrosodimethylamine	1.59	U	3.80	ug/L	10.0		15.9	4.18-37.2	0.984	40
n-Nitroso-di-n-butylamine	<5.70	U	5.70	ug/L	2.00			60-140	200	40
n-Nitrosodi-n-propylamine	1.96		1.40	ug/L	2.00		98.0	0-230	1.22	87
n-Nitrosodiphenylamine	0.0666	J1, U	0.200	ug/L	2.00		3.33	60-140	157	40
Pentachlorobenzene	1.30		0.200	ug/L	2.00		65.0	60-140	6.45	40
Pentachlorophenol	4.03		1.40	ug/L	4.00		101	14-176	8.13	86
Phenanthrene	1.80		0.300	ug/L	2.00		89.8	54-120	5.01	39
Phenol, Total	3.73		1.50	ug/L	4.00		93.2	5-120	2.90	64
Pyrene	1.03	J1	0.300	ug/L	2.00		51.5	52-120	40.6	49
Pyridine	<13.3	J1, U	13.3	ug/L	10.0			0-137	200	40
Surrogate: 2,4,6-Tribromophenol-surr			2.93	ug/L	4.00		73.3	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.28	ug/L	2.00		64.0	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.15	ug/L	4.00		78.7	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.45	ug/L	2.00		72.4	31.2-136		
Surrogate: Phenol-d5-surr			3.53	ug/L	4.00		88.3	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.73	ug/L	2.00		86.3	37.6-117		





M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**LCS Dup (BGL1922-BSD3)**

Prepared: 12/12/2023 Analyzed: 12/20/2023

n-Nitrosodiethylamine	1.03	J1, U	20.0	ug/L	2.00		51.4	60-140	26.9	40
Surrogate: 2,4,6-Tribromophenol-surr			2.95	ug/L	4.00		73.8	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.31	ug/L	2.00		65.3	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.07	ug/L	4.00		76.8	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.48	ug/L	2.00		73.9	31.2-136		
Surrogate: Phenol-d5-surr			3.43	ug/L	4.00		85.8	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.66	ug/L	2.00		83.0	37.6-117		

**Matrix Spike (BGL1922-MS1)**

Source: 23L2149-02

Prepared: 12/12/2023 Analyzed: 12/15/2023

1,2,4,5-Tetrachlorobenzene	1.39		0.300	ug/L	2.00	<0.300	69.3	60-140		
1,2,4-Trichlorobenzene	1.34		0.300	ug/L	2.00	<0.300	66.9	44-142		
1,2-Diphenylhydrazine	1.51		0.750	ug/L	2.00	<0.750	75.3	60-140		
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.78		0.400	ug/L	2.00	<0.400	88.8	60-140		
2,4,5-Trichlorophenol	3.64		0.700	ug/L	4.00	<0.700	91.1	60-140		
2,4,6-Trichlorophenol	4.62		1.20	ug/L	4.00	<1.20	115	37-144		
2,4-Dichlorophenol	3.93		0.800	ug/L	4.00	<0.800	98.2	39-135		
2,4-Dimethylphenol	3.66		0.900	ug/L	4.00	<0.900	91.5	32-120		
2,4-Dinitrophenol	9.83		8.60	ug/L	10.0	<8.60	98.3	0-191		
2,4-Dinitrotoluene (2,4-DNT)	1.81		0.200	ug/L	2.00	<0.200	90.7	39-139		
2,6-Dinitrotoluene (2,6-DNT)	2.19		1.80	ug/L	2.00	<1.80	109	50-158		
2-Chloronaphthalene	1.63		0.400	ug/L	2.00	<0.400	81.6	60-120		
2-Chlorophenol	2.47		0.500	ug/L	4.00	<0.500	61.9	23-134		
2-Methyl-4,6-dinitrophenol	4.30		1.60	ug/L	4.00	<1.60	108	0-181		
(4,6-Dinitro-2-methylph										
2-Nitrophenol	3.57		0.700	ug/L	4.00	<0.700	89.2	29-182		
3,4-Methylphenol	6.57		1.40	ug/L	8.00	<1.40	82.2	60-140		
4-Bromophenyl phenyl ether (BDE-3)	1.43		0.300	ug/L	2.00	<0.300	71.5	53-127		
4-Chloro-3-methylphenol	3.63		0.700	ug/L	4.00	<0.700	90.8	22-147		
4-Chlorophenyl phenylether	1.59		0.700	ug/L	2.00	<0.700	79.6	25-158		
4-Nitrophenol	9.58		7.20	ug/L	10.0	<7.20	95.8	0-132		
Acenaphthene	1.60		0.300	ug/L	2.00	<0.300	79.9	47-145		
Acenaphthylene	1.49		0.200	ug/L	2.00	<0.200	74.5	33-145		
Anthracene	1.51		0.200	ug/L	2.00	<0.200	75.7	27-133		
Benzo(a)anthracene	2.14		0.300	ug/L	2.00	<0.300	107	33-143		
Benzo(a)pyrene	1.63		0.500	ug/L	2.00	<0.500	81.5	17-163		
benzo(b&k)fluoranthene	3.77		0.400	ug/L	4.00	<0.400	94.1	60-140		
Benzo(g,h,i)perylene	1.78		0.400	ug/L	2.00	<0.400	89.2	0-219		
bis(2-Chloroethoxy)methane	1.72		0.400	ug/L	2.00	<0.400	86.1	33-184		
bis(2-Chloroethyl) ether	1.76		0.600	ug/L	2.00	<0.600	87.9	12-158		
Bis(2-ethylhexyl )phthalate	2.33		1.50	ug/L	2.00	0.576	87.6	8-158		
Butyl benzyl phthalate	1.89		0.400	ug/L	2.00	<0.400	94.6	0-152		
Chrysene	1.12		0.200	ug/L	2.00	<0.200	56.0	17-168		
Dibenzo(a,h)anthracene	1.66		0.500	ug/L	2.00	<0.500	82.9	0-227		
Diethyl phthalate	2.29		0.500	ug/L	2.00	1.40	44.5	0-120		
Dimethyl phthalate	1.85		0.300	ug/L	2.00	0.102	87.3	0-120		
Di-n-butyl phthalate	1.25	U	1.60	ug/L	2.00	<1.60	62.5	1-120		
Di-n-octyl phthalate	1.89		0.500	ug/L	2.00	<0.500	94.7	4-146		

\* A = Accredited, N = Not Accredited or Accreditation not available



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**Matrix Spike (BGL1922-MS1)**

**Source: 23L2149-02**

Prepared: 12/12/2023 Analyzed: 12/15/2023

Fluoranthene	1.59		0.300	ug/L	2.00	<0.300	79.5	26-137		
Fluorene	1.82		0.200	ug/L	2.00	<0.200	90.8	59-121		
Hexachlorobenzene	1.33		0.200	ug/L	2.00	<0.200	66.4	0-152		
Hexachlorobutadiene	1.16		0.300	ug/L	2.00	<0.300	57.8	24-120		
Hexachlorocyclopentadiene	1.68	J1	0.750	ug/L	2.00	0.566	55.5	60-140		
Hexachloroethane	1.04		0.200	ug/L	2.00	<0.200	51.9	40-120		
Hexachlorophene	3.07		1.10	ug/L	4.00	<1.10	76.7	60-140		
Indeno(1,2,3-cd) pyrene	1.88		0.400	ug/L	2.00	<0.400	94.0	0-171		
Isophorone	1.69		0.300	ug/L	2.00	<0.300	84.4	21-196		
Naphthalene	1.75		0.300	ug/L	2.00	<0.300	87.4	21-133		
Nitrobenzene	1.94		0.400	ug/L	2.00	<0.400	96.9	35-180		
n-Nitrosodimethylamine	1.38	U	3.80	ug/L	10.0	<3.80	13.8	4.18-91		
n-Nitroso-di-n-butylamine	2.17	U	5.70	ug/L	2.00	<5.70	108	60-140		
n-Nitrosodi-n-propylamine	2.32		1.40	ug/L	2.00	<1.40	116	0-230		
n-Nitrosodiphenylamine	0.160	J1, U	0.200	ug/L	2.00	<0.200	8.00	60-140		
Pentachlorobenzene	1.48		0.200	ug/L	2.00	<0.200	73.8	60-140		
Pentachlorophenol	3.66		1.40	ug/L	4.00	<1.40	91.5	14-176		
Phenanthrene	1.72		0.300	ug/L	2.00	<0.300	85.9	54-120		
Phenol, Total	4.72		1.50	ug/L	4.00	0.684	101	5-120		
Pyrene	1.39		0.300	ug/L	2.00	<0.300	69.4	52-120		
Pyridine	<13.3	J1, U	13.3	ug/L	10.0	<13.3		60-140		
Surrogate: 2,4,6-Tribromophenol-surr			3.16	ug/L	4.00		79.1	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.32	ug/L	2.00		66.0	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.25	ug/L	4.00		81.3	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.56	ug/L	2.00		77.9	31.2-136		
Surrogate: Phenol-d5-surr			4.05	ug/L	4.00		101	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.77	ug/L	2.00		88.3	37.6-117		



M.M.I.A., Inc.

P.O. Box 9

Spring, TX 77383

Reported:

01/04/2024 10:44

## Quality Control

(Continued)

## Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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## Batch: BGL1922 - EPA 625 LLE (Continued)

## Matrix Spike (BGL1922-MS2)

Source: 23L2149-02RE1

Prepared: 12/12/2023 Analyzed: 12/20/2023

n-Nitrosodiethylamine	1.12	J1, U	20.0	ug/L	2.00	<20.0	55.9	60-140		
Surrogate: 2,4,6-Tribromophenol-surr			3.24	ug/L	4.00		81.0	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.31	ug/L	2.00		65.3	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.25	ug/L	4.00		81.3	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.42	ug/L	2.00		71.1	31.2-136		
Surrogate: Phenol-d5-surr			3.47	ug/L	4.00		86.6	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.76	ug/L	2.00		88.0	37.6-117		

## Matrix Spike Dup (BGL1922-MSD1)

Source: 23L2149-02

Prepared: 12/12/2023 Analyzed: 12/15/2023

1,2,4,5-Tetrachlorobenzene	1.41		0.300	ug/L	2.00	<0.300	70.6	60-140	1.93	40
1,2,4-Trichlorobenzene	1.33		0.300	ug/L	2.00	<0.300	66.3	44-142	0.948	50
1,2-Diphenylhydrazine	1.55		0.750	ug/L	2.00	<0.750	77.3	60-140	2.67	40
2,2'-Oxybis(1-chloropropane),	1.67		0.400	ug/L	2.00	<0.400	83.5	60-140	6.19	40
bis(2-Chloro-1-methy										
2,4,5-Trichlorophenol	3.53		0.700	ug/L	4.00	<0.700	88.1	60-140	3.26	40
2,4,6-Trichlorophenol	4.21		1.20	ug/L	4.00	<1.20	105	37-144	9.24	58
2,4-Dichlorophenol	3.76		0.800	ug/L	4.00	<0.800	94.1	39-135	4.25	50
2,4-Dimethylphenol	3.54		0.900	ug/L	4.00	<0.900	88.6	32-120	3.27	58
2,4-Dinitrophenol	10.3		8.60	ug/L	10.0	<8.60	103	0-191	4.45	132
2,4-Dinitrotoluene (2,4-DNT)	1.80		0.200	ug/L	2.00	<0.200	90.0	39-139	0.803	42
2,6-Dinitrotoluene (2,6-DNT)	2.07		1.80	ug/L	2.00	<1.80	103	50-158	5.48	48
2-Chloronaphthalene	1.51		0.400	ug/L	2.00	<0.400	75.3	60-120	7.97	24
2-Chlorophenol	2.70		0.500	ug/L	4.00	<0.500	67.4	23-134	8.57	61
2-Methyl-4,6-dinitrophenol	4.28		1.60	ug/L	4.00	<1.60	107	0-181	0.596	203
(4,6-Dinitro-2-methylph										
2-Nitrophenol	3.85		0.700	ug/L	4.00	<0.700	96.2	29-182	7.58	55
3,4-Methylphenol	6.45		1.40	ug/L	8.00	<1.40	80.6	60-140	1.95	40
4-Bromophenyl phenyl ether (BDE-3)	1.44		0.300	ug/L	2.00	<0.300	72.1	53-127	0.776	43
4-Chloro-3-methylphenol	3.34		0.700	ug/L	4.00	<0.700	83.6	22-147	8.28	73
4-Chlorophenyl phenylether	1.54		0.700	ug/L	2.00	<0.700	76.9	25-158	3.35	61
4-Nitrophenol	7.59		7.20	ug/L	10.0	<7.20	75.9	0-132	23.2	131
Acenaphthene	1.54		0.300	ug/L	2.00	<0.300	77.1	47-145	3.62	48
Acenaphthylene	1.63		0.200	ug/L	2.00	<0.200	81.3	33-145	8.63	74
Anthracene	1.57		0.200	ug/L	2.00	<0.200	78.7	27-133	3.77	66
Benzo(a)anthracene	2.15		0.300	ug/L	2.00	<0.300	107	33-143	0.297	53
Benzo(a)pyrene	1.64		0.500	ug/L	2.00	<0.500	82.0	17-163	0.705	72
benzo(b&k)fluoranthene	3.84		0.400	ug/L	4.00	<0.400	95.9	60-140	1.85	40
Benzo(g,h,i)perylene	1.73		0.400	ug/L	2.00	<0.400	86.4	0-219	3.21	97
bis(2-Chloroethoxy)methane	1.79		0.400	ug/L	2.00	<0.400	89.3	33-184	3.71	54
bis(2-Chloroethyl) ether	1.58		0.600	ug/L	2.00	<0.600	79.0	12-158	10.6	108
Bis(2-ethylhexyl )phthalate	2.32		1.50	ug/L	2.00	0.576	87.0	8-158	0.580	82
Butyl benzyl phthalate	1.83		0.400	ug/L	2.00	<0.400	91.4	0-152	3.42	60
Chrysene	1.08		0.200	ug/L	2.00	<0.200	54.1	17-168	3.40	87
Dibenzo(a,h)anthracene	1.59		0.500	ug/L	2.00	<0.500	79.6	0-227	4.06	126
Diethyl phthalate	2.17		0.500	ug/L	2.00	1.40	38.5	0-120	5.39	100
Dimethyl phthalate	1.81		0.300	ug/L	2.00	0.102	85.3	0-120	2.19	183
Di-n-butyl phthalate	1.11	U	1.60	ug/L	2.00	<1.60	55.5	1-120	11.9	47
Di-n-octyl phthalate	1.88		0.500	ug/L	2.00	<0.500	94.0	4-146	0.720	69

\* A = Accredited, N = Not Accredited or Accreditation not available





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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1922 - EPA 625 LLE (Continued)</b>										
<b>Matrix Spike Dup (BGL1922-MSD1)</b>			<b>Source: 23L2149-02</b>		Prepared: 12/12/2023 Analyzed: 12/15/2023					
Fluoranthene	1.54		0.300	ug/L	2.00	<0.300	76.9	26-137	3.35	66
Fluorene	1.65		0.200	ug/L	2.00	<0.200	82.4	59-121	9.68	38
Hexachlorobenzene	1.34		0.200	ug/L	2.00	<0.200	66.8	0-152	0.588	55
Hexachlorobutadiene	1.21		0.300	ug/L	2.00	<0.300	60.7	24-120	5.02	62
Hexachlorocyclopentadiene	1.92		0.750	ug/L	2.00	0.566	67.9	60-140	13.8	40
Hexachloroethane	1.02		0.200	ug/L	2.00	<0.200	51.0	40-120	1.83	52
Hexachlorophene	3.12		1.10	ug/L	4.00	<1.10	78.1	60-140	1.79	40
Indeno(1,2,3-cd) pyrene	1.85		0.400	ug/L	2.00	<0.400	92.4	0-171	1.78	99
Isophorone	1.80		0.300	ug/L	2.00	<0.300	89.8	21-196	6.13	93
Naphthalene	1.70		0.300	ug/L	2.00	<0.300	84.9	21-133	2.88	65
Nitrobenzene	1.91		0.400	ug/L	2.00	<0.400	95.6	35-180	1.41	62
n-Nitrosodimethylamine	1.65	U	3.80	ug/L	10.0	<3.80	16.5	4.18-91	17.8	40
n-Nitroso-di-n-butylamine	2.03	U	5.70	ug/L	2.00	<5.70	101	60-140	6.65	40
n-Nitrosodi-n-propylamine	2.21		1.40	ug/L	2.00	<1.40	110	0-230	4.76	87
n-Nitrosodiphenylamine	0.444	J1	0.200	ug/L	2.00	<0.200	22.2	60-140	94.0	40
Pentachlorobenzene	1.35		0.200	ug/L	2.00	<0.200	67.7	60-140	8.61	40
Pentachlorophenol	3.60		1.40	ug/L	4.00	<1.40	90.1	14-176	1.58	86
Phenanthrene	1.67		0.300	ug/L	2.00	<0.300	83.5	54-120	2.86	39
Phenol, Total	4.12		1.50	ug/L	4.00	0.684	85.8	5-120	13.6	64
Pyrene	1.39		0.300	ug/L	2.00	<0.300	69.7	52-120	0.438	49
Pyridine	<13.3	J1, U	13.3	ug/L	10.0	<13.3		60-140		40
Surrogate: 2,4,6-Tribromophenol-surr			3.23	ug/L	4.00		80.7	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.46	ug/L	2.00		73.1	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.11	ug/L	4.00		77.7	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.73	ug/L	2.00		86.3	31.2-136		
Surrogate: Phenol-d5-surr			3.88	ug/L	4.00		97.1	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.93	ug/L	2.00		96.7	37.6-117		



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**Reported:**  
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**Quality Control**  
(Continued)

**Semivolatile Organic Compounds by GCMS (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1922 - EPA 625 LLE (Continued)**

**Matrix Spike Dup (BGL1922-MSD2)**

**Source: 23L2149-02RE1**

Prepared: 12/12/2023 Analyzed: 12/20/2023

n-Nitrosodiethylamine	1.05	J1, U	20.0	ug/L	2.00	<20.0	52.7	60-140	5.77	40
Surrogate: 2,4,6-Tribromophenol-surr			3.38	ug/L	4.00		84.4	33.6-139		
Surrogate: 2-Fluorobiphenyl-surr			1.41	ug/L	2.00		70.5	32.2-138		
Surrogate: 2-Fluorophenol-surr			3.62	ug/L	4.00		90.6	32.7-137		
Surrogate: Nitrobenzene-d5-surr			1.58	ug/L	2.00		79.1	31.2-136		
Surrogate: Phenol-d5-surr			4.01	ug/L	4.00		100	28.9-155		
Surrogate: p-Terphenyl-d14-surr			1.86	ug/L	2.00		93.2	37.6-117		





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Reported:

01/04/2024 10:44

**Quality Control**  
(Continued)**Organics by GC**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1314 - EPA 1657 SPE****Blank (BGL1314-BLK1)**

Prepared: 12/7/2023 Analyzed: 12/15/2023

Azinphos-methyl (Guthion)	<0.100	U	0.100	ug/L						
Chlorpyrifos	<0.0500	U	0.0500	ug/L						
Demeton	<0.200	U	0.200	ug/L						
Diazinon	<0.500	U	0.500	ug/L						
Malathion	<0.100	U	0.100	ug/L						
Parathion, ethyl	<0.100	U	0.100	ug/L						
Disulfoton	<0.0500	U	0.0500	ug/L						
Surrogate: Tributyl Phosphate-surr			0.210	ug/L	0.200		105	40-120		
Surrogate: Triphenyl Phosphate-surr			0.151	ug/L	0.200		75.4	40-120		

**LCS (BGL1314-BS1)**

Prepared: 12/7/2023 Analyzed: 12/15/2023

Azinphos-methyl (Guthion)	0.111		0.100	ug/L	0.251		44.1	37-150		
Chlorpyrifos	0.114	J1	0.0502	ug/L	0.251		45.5	48-150		
Demeton	0.0408	J	0.201	ug/L	0.251		16.2	16-150		
Diazinon	0.127	J	0.502	ug/L	0.251		50.7	50-150		
Malathion	0.0977	J1, J	0.100	ug/L	0.251		38.9	50-150		
Parathion, ethyl	0.118	J1	0.100	ug/L	0.251		46.9	50-150		
Disulfoton	0.0744	J1	0.0502	ug/L	0.251		29.7	33-150		
Surrogate: Tributyl Phosphate-surr			0.168	ug/L	0.201		83.7	40-120		
Surrogate: Triphenyl Phosphate-surr		S	0.0729	ug/L	0.201		36.3	40-120		

**LCS Dup (BGL1314-BSD1)**

Prepared: 12/7/2023 Analyzed: 12/15/2023

Azinphos-methyl (Guthion)	0.168	J1	0.100	ug/L	0.250		67.3	37-150	41.2	40
Chlorpyrifos	0.129		0.0500	ug/L	0.250		51.7	48-150	12.4	40
Demeton	0.0576	J	0.200	ug/L	0.250		23.0	16-150	34.2	40
Diazinon	0.175	J	0.500	ug/L	0.250		70.1	50-150	31.7	40
Malathion	0.106	J1	0.100	ug/L	0.250		42.6	50-150	8.52	40
Parathion, ethyl	0.141		0.100	ug/L	0.250		56.6	50-150	18.3	40
Disulfoton	0.0928		0.0500	ug/L	0.250		37.1	33-150	22.0	40
Surrogate: Tributyl Phosphate-surr			0.178	ug/L	0.200		89.2	40-120		
Surrogate: Triphenyl Phosphate-surr			0.105	ug/L	0.200		52.7	40-120		



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**Reported:**  
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**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1314 - EPA 1657 SPE (Continued)**

**Matrix Spike (BGL1314-MS1)**

Source: 23K5709-02

Prepared: 12/7/2023 Analyzed: 12/15/2023

Azinphos-methyl (Guthion)	0.0953	J	0.103	ug/L	0.257	<0.103	37.1	25-150		
Chlorpyrifos	0.125		0.0513	ug/L	0.257	<0.0513	48.8	25-150		
Demeton	<0.205	J1, U	0.205	ug/L	0.257	<0.205		25-150		
Diazinon	0.166	J	0.513	ug/L	0.257	<0.513	64.8	25-150		
Malathion	0.0799	J	0.103	ug/L	0.257	<0.103	31.1	25-150		
Parathion, ethyl	0.124		0.103	ug/L	0.257	<0.103	48.3	25-150		
Disulfoton	<0.0513	J1, U	0.0513	ug/L	0.257	<0.0513		25-150		
Surrogate: Tributyl Phosphate-surr			0.198	ug/L	0.205		96.4	40-120		
Surrogate: Triphenyl Phosphate-surr		S	0.0541	ug/L	0.205		26.4	40-120		

**Matrix Spike Dup (BGL1314-MSD1)**

Source: 23K5709-02

Prepared: 12/7/2023 Analyzed: 12/15/2023

Azinphos-methyl (Guthion)	0.0520	J1, J	0.103	ug/L	0.258	<0.103	20.1	25-150	58.8	40
Chlorpyrifos	0.156		0.0516	ug/L	0.258	<0.0516	60.6	25-150	22.1	40
Demeton	<0.207	J1, U	0.207	ug/L	0.258	<0.207		25-150		40
Diazinon	0.206	J	0.516	ug/L	0.258	<0.516	79.9	25-150	21.4	40
Malathion	0.0981	J	0.103	ug/L	0.258	<0.103	38.0	25-150	20.4	40
Parathion, ethyl	0.177		0.103	ug/L	0.258	<0.103	68.6	25-150	35.3	40
Disulfoton	<0.0516	J1, U	0.0516	ug/L	0.258	<0.0516		25-150		40
Surrogate: Tributyl Phosphate-surr			0.151	ug/L	0.207		73.0	40-120		
Surrogate: Triphenyl Phosphate-surr		S	0.0660	ug/L	0.207		32.0	40-120		

**Batch: BGL1517 - SW-3511**

**Blank (BGL1517-BLK1)**

Prepared: 12/8/2023 Analyzed: 12/19/2023

2,4-D	<0.700	U	0.700	ug/L						
Silvex (2,4,5-TP)	<0.300	U	0.300	ug/L						
Dicamba	<0.236	U	0.236	ug/L						
2,4,5-T	<0.236	U	0.236	ug/L						
Surrogate: DCAA-surr			26.0	ug/L	25.0		104	70-130		



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**Reported:**  
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**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1517 - SW-3511 (Continued)**

**LCS (BGL1517-BS1)**

Prepared: 12/8/2023 Analyzed: 12/19/2023

2,4-D	4.18		0.700	ug/L	5.15		81.2	70-130		
Silvex (2,4,5-TP)	4.27		0.300	ug/L	5.00		85.4	70-130		
Dicamba	3.63		0.236	ug/L	5.05		71.9	70-130		
2,4,5-T	4.40		0.236	ug/L	5.20		84.7	70-130		
Surrogate: DCAA-surr			20.8	ug/L	25.0		83.2	70-130		

**LCS Dup (BGL1517-BSD1)**

Prepared: 12/8/2023 Analyzed: 12/19/2023

2,4-D	4.54		0.700	ug/L	5.15		88.1	70-130	8.16	30
Silvex (2,4,5-TP)	4.48		0.300	ug/L	5.00		89.6	70-130	4.79	30
Dicamba	4.29		0.236	ug/L	5.05		84.9	70-130	16.6	30
2,4,5-T	4.63		0.236	ug/L	5.20		89.0	70-130	5.02	30
Surrogate: DCAA-surr			21.9	ug/L	25.0		87.5	70-130		

**Matrix Spike (BGL1517-MS1)**

Source: 23L2149-02

Prepared: 12/8/2023 Analyzed: 12/19/2023

2,4-D	4.66		0.700	ug/L	5.15	<0.700	90.4	70-130		
Silvex (2,4,5-TP)	4.62		0.300	ug/L	5.00	<0.300	92.4	70-130		
Dicamba	4.61		0.236	ug/L	5.05	<0.236	91.4	70-130		
2,4,5-T	4.76		0.236	ug/L	5.20	<0.236	91.6	70-130		
Surrogate: DCAA-surr			25.1	ug/L	25.0		100	70-130		

**Matrix Spike Dup (BGL1517-MSD1)**

Source: 23L2149-02

Prepared: 12/8/2023 Analyzed: 12/19/2023

2,4-D	4.60		0.700	ug/L	5.15	<0.700	89.4	70-130	1.15	30
Silvex (2,4,5-TP)	4.45		0.300	ug/L	5.00	<0.300	88.9	70-130	3.81	30
Dicamba	4.66		0.236	ug/L	5.05	<0.236	92.2	70-130	0.889	30
2,4,5-T	4.61		0.236	ug/L	5.20	<0.236	88.7	70-130	3.19	30
Surrogate: DCAA-surr			26.6	ug/L	25.0		106	70-130		



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**Reported:**  
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**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2486 - EPA 608 SPE**

**Blank (BGL2486-BLK1)**

Prepared & Analyzed: 12/14/2023

Dicofol	<0.120	U	0.120	ug/L						
Mirex	<0.0100	U	0.0100	ug/L						
Surrogate: 2,4,5,6			0.0353	ug/L	0.120		29.4	25.2-154		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.0336	ug/L	0.120		28.0	41.2-118		

**Blank (BGL2486-BLK2)**

Prepared: 12/14/2023 Analyzed: 12/20/2023

4,4'-DDD	<0.00600	U	0.00600	ug/L						
4,4'-DDE	<0.00300	U	0.00300	ug/L						
4,4'-DDT	<0.0200	U	0.0200	ug/L						
Aldrin	<0.00400	U	0.00400	ug/L						
Chlordane (Total)	<0.0200	U	0.0200	ug/L						
cis-Chlordane (alpha-Chlordane)	<0.0200	U	0.0200	ug/L						
delta-BHC	<0.00900	U	0.00900	ug/L						
Dieldrin	<0.00300	U	0.00300	ug/L						
Endosulfan I	<0.0100	U	0.0100	ug/L						
Endosulfan II	<0.00300	U	0.00300	ug/L						
Endosulfan sulfate	<0.0400	U	0.0400	ug/L						
Endrin	<0.00600	U	0.00600	ug/L						
Endrin aldehyde	<0.0200	U	0.0200	ug/L						
Endrin ketone	<0.0700	U	0.0700	ug/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.00300	U	0.00300	ug/L						
gamma-Chlordane	<0.0200	U	0.0200	ug/L						
Heptachlor	<0.00600	U	0.00600	ug/L						
Heptachlor epoxide	<0.0100	U	0.0100	ug/L						
Methoxychlor	<0.0400	U	0.0400	ug/L						
Surrogate: 2,4,5,6			0.0583	ug/L	0.120		48.6	25.2-154		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.0422	ug/L	0.120		35.2	41.2-118		





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**Reported:**  
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**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL2486 - EPA 608 SPE (Continued)</b>										
<b>Blank (BGL2486-BLK3)</b>			Prepared: 12/14/2023 Analyzed: 12/22/2023							
beta-BHC (beta-Hexachlorocyclohexane)	<0.0500	U	0.0500	ug/L						
Toxaphene (Chlorinated Camphene)	<0.300	U	0.300	ug/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.0767	ug/L	0.120		63.9	25.2-154		
Surrogate: Decachlorobiphenyl-surr	S		0.0478	ug/L	0.120		39.8	41.2-118		
<b>Blank (BGL2486-BLK4)</b>			Prepared: 12/14/2023 Analyzed: 12/23/2023							
alpha-BHC (alpha-Hexachlorocyclohexane)	<0.0500	U	0.0500	ug/L						
beta-BHC (beta-Hexachlorocyclohexane)	<0.0500	C+, U	0.0500	ug/L						
Chlordane (Total)	<0.100	U	0.100	ug/L						
Dieldrin	<0.0200	C+, U	0.0200	ug/L						
Endosulfan I	<0.0100	C+, U	0.0100	ug/L						
Endrin	<0.0200	U	0.0200	ug/L						
Endrin aldehyde	<0.100	U	0.100	ug/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.0500	U	0.0500	ug/L						
Heptachlor	<0.0120	C+, U	0.0120	ug/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.0536	ug/L	0.120		44.7	25.2-154		
Surrogate: Decachlorobiphenyl-surr	S		0.0475	ug/L	0.120		39.6	41.2-118		
<b>M/D LCS (BGL2486-BS2)</b>			Prepared & Analyzed: 12/14/2023							
Dicofol	0.441		0.120	ug/L	0.480		91.9	21.1-147		
Mirex	0.0247		0.0100	ug/L	0.0480		51.5	14-163		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.0727	ug/L	0.120		60.6	25.2-154		
Surrogate: Decachlorobiphenyl-surr	S		0.0480	ug/L	0.120		40.0	41.2-118		
<b>LCS (BGL2486-BS3)</b>			Prepared: 12/14/2023 Analyzed: 12/20/2023							
4,4'-DDD	0.0243	J1	0.00600	ug/L	0.120		20.2	31-141		
4,4'-DDE	0.0222	J1	0.00300	ug/L	0.120		18.5	30-145		
4,4'-DDT	0.0215	J1	0.0200	ug/L	0.120		17.9	25-160		
Aldrin	0.0260	J1	0.00400	ug/L	0.120		21.7	42-140		
alpha-BHC (alpha-Hexachlorocyclohexane)	0.0228	J1	0.00900	ug/L	0.120		19.0	37-140		
beta-BHC (beta-Hexachlorocyclohexane)	0.0222		0.0200	ug/L	0.120		18.5	17-147		
Chlordane (Total)	0.0974	J1	0.0200	ug/L	0.480		20.3	60-140		
cis-Chlordane (alpha-Chlordane)	0.0240	J1	0.0200	ug/L	0.120		20.0	45-140		
delta-BHC	0.0152	J1	0.00900	ug/L	0.120		12.6	19-140		
Dieldrin	0.0230	J1	0.00300	ug/L	0.120		19.1	36-146		
Endosulfan I	0.0228	J1	0.0100	ug/L	0.120		19.0	45-153		
Endosulfan II	0.0309	J1	0.00300	ug/L	0.120		25.8	1-202		
Endosulfan sulfate	0.0247	J1, J	0.0400	ug/L	0.120		20.6	26-144		
Endrin	0.0248	J1	0.00600	ug/L	0.120		20.6	30-147		

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M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2486 - EPA 608 SPE (Continued)**

**LCS (BGL2486-BS3)**

Prepared: 12/14/2023 Analyzed: 12/20/2023

Endrin aldehyde	0.0191	J	0.0200	ug/L	0.120		15.9	15.1-142		
Endrin ketone	0.0231	J1, J	0.0700	ug/L	0.120		19.2	25.6-142		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.0165	J1	0.00300	ug/L	0.120		13.8	32-140		
gamma-Chlordane	0.0248	J1	0.0200	ug/L	0.120		20.7	45-140		
Heptachlor	0.0210	J1	0.00600	ug/L	0.120		17.5	34-140		
Heptachlor epoxide	0.0276	J1	0.0100	ug/L	0.120		23.0	37-142		
Methoxychlor	0.0221	J1, J	0.0400	ug/L	0.120		18.4	23.2-144		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.0403	ug/L	0.120		33.5	25.2-154		
Surrogate: Decachlorobiphenyl-surr		5	0.0283	ug/L	0.120		23.6	41.2-118		

**MD/ LCSD (BGL2486-BSD2)**

Prepared & Analyzed: 12/14/2023

Dicofol	0.586		0.120	ug/L	0.480		122	21.1-147	28.2	40
Mirex	0.0344		0.0100	ug/L	0.0480		71.6	14-163	32.7	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.0975	ug/L	0.120		81.2	25.2-154		
Surrogate: Decachlorobiphenyl-surr			0.0678	ug/L	0.120		56.5	41.2-118		

**LCS Dup (BGL2486-BSD3)**

Prepared: 12/14/2023 Analyzed: 12/20/2023

4,4'-DDD	0.0944	J1	0.00600	ug/L	0.120		78.7	31-141	118	39
4,4'-DDE	0.0898	J1	0.00300	ug/L	0.120		74.9	30-145	121	35
4,4'-DDT	0.0894	J1	0.0200	ug/L	0.120		74.5	25-160	122	42
Aldrin	0.0940	J1	0.00400	ug/L	0.120		78.4	42-140	113	35
alpha-BHC	0.105	J1	0.00900	ug/L	0.120		87.7	37-140	129	36
(alpha-Hexachlorocyclohexane)										
beta-BHC	0.121	J1	0.0200	ug/L	0.120		101	17-147	138	44
(beta-Hexachlorocyclohexane)										
Chlordane (Total)	0.393	J1	0.0200	ug/L	0.480		81.8	60-140	121	40
cis-Chlordane (alpha-Chlordane)	0.0960	J1	0.0200	ug/L	0.120		80.0	45-140	120	35
delta-BHC	0.0928	J1	0.00900	ug/L	0.120		77.3	19-140	144	52
Dieldrin	0.0941	J1	0.00300	ug/L	0.120		78.4	36-146	121	49
Endosulfan I	0.0972	J1	0.0100	ug/L	0.120		81.0	45-153	124	28
Endosulfan II	0.108	J1	0.00300	ug/L	0.120		89.6	1-202	111	53
Endosulfan sulfate	0.0793	J1	0.0400	ug/L	0.120		66.1	26-144	105	38
Endrin	0.0999	J1	0.00600	ug/L	0.120		83.3	30-147	121	48
Endrin aldehyde	0.0729	J1	0.0200	ug/L	0.120		60.8	15.1-142	117	50.1
Endrin ketone	0.0872	J1	0.0700	ug/L	0.120		72.7	25.6-142	116	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.101	J1	0.00300	ug/L	0.120		84.6	32-140	144	39
gamma-Chlordane	0.104	J1	0.0200	ug/L	0.120		86.7	45-140	123	35
Heptachlor	0.0944	J1	0.00600	ug/L	0.120		78.6	34-140	127	43
Heptachlor epoxide	0.0984	J1	0.0100	ug/L	0.120		82.0	37-142	112	26
Methoxychlor	0.0739	J1	0.0400	ug/L	0.120		61.6	23.2-144	108	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.115	ug/L	0.120		95.6	25.2-154		
Surrogate: Decachlorobiphenyl-surr			0.0837	ug/L	0.120		69.8	41.2-118		



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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2486 - EPA 608 SPE (Continued)**

**Matrix Spike (BGL2486-MS1)**

Source: 23L2149-02

Prepared: 12/14/2023 Analyzed: 12/20/2023

4,4'-DDD	0.103		0.00600	ug/L	0.120	<0.00600	86.1	31-141		
4,4'-DDE	0.0975		0.00300	ug/L	0.120	<0.00300	81.3	30-145		
4,4'-DDT	0.0926		0.0200	ug/L	0.120	<0.0200	77.2	25-160		
Aldrin	0.101		0.00400	ug/L	0.120	<0.00400	84.4	42-140		
alpha-BHC	0.140		0.00900	ug/L	0.120	0.00710	111	37-140		
(alpha-Hexachlorocyclohexane)										
beta-BHC	0.277	J1, L	0.0200	ug/L	0.120	0.0215	213	17-147		
(beta-Hexachlorocyclohexane)										
Chlordane (Total)	0.448		0.0200	ug/L	0.480	0.0103	91.2	60-140		
cis-Chlordane (alpha-Chlordane)	0.103		0.0200	ug/L	0.120	<0.0200	86.1	45-140		
delta-BHC	0.130		0.00900	ug/L	0.120	0.00394	105	19-140		
Dieldrin	0.110		0.00300	ug/L	0.120	0.00441	88.4	36-146		
Endosulfan I	0.115		0.0100	ug/L	0.120	0.00563	91.2	45-153		
Endosulfan II	0.111		0.00300	ug/L	0.120	<0.00300	92.7	1-202		
Endosulfan sulfate	0.110		0.0400	ug/L	0.120	<0.0400	92.0	26-144		
Endrin	0.135		0.00600	ug/L	0.120	0.0492	71.4	30-147		
Endrin aldehyde	0.0713	J1	0.0200	ug/L	0.120	0.00803	52.7	60-140		
Endrin ketone	0.108		0.0700	ug/L	0.120	<0.0700	90.3	60-140		
gamma-BHC (Lindane,	0.169		0.00300	ug/L	0.120	0.00673	135	32-140		
gamma-HexachlorocyclohexanE)										
gamma-Chlordane	0.108		0.0200	ug/L	0.120	<0.0200	90.4	45-140		
Heptachlor	0.127		0.00600	ug/L	0.120	0.00661	100	34-140		
Heptachlor epoxide	0.110		0.0100	ug/L	0.120	<0.0100	91.3	37-142		
Methoxychlor	0.0458	J1	0.0400	ug/L	0.120	0.0205	21.1	60-140		
Surrogate: 2,4,5,6			0.150	ug/L	0.120		125	25.2-154		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.105	ug/L	0.120		87.3	41.2-118		

**Matrix Spike Dup (BGL2486-MSD1)**

Source: 23L2149-02

Prepared: 12/14/2023 Analyzed: 12/20/2023

4,4'-DDD	0.0541	J1	0.00600	ug/L	0.120	<0.00600	45.1	31-141	62.5	39
4,4'-DDE	0.0540	J1	0.00300	ug/L	0.120	<0.00300	45.0	30-145	57.4	35
4,4'-DDT	0.0500	J1	0.0200	ug/L	0.120	<0.0200	41.6	25-160	59.8	42
Aldrin	0.0540	J1	0.00400	ug/L	0.120	<0.00400	45.0	42-140	60.9	35
alpha-BHC	0.0637	J1	0.00900	ug/L	0.120	0.00710	47.1	37-140	75.0	36
(alpha-Hexachlorocyclohexane)										
beta-BHC	0.133	J1	0.0200	ug/L	0.120	0.0215	93.0	17-147	70.3	44
(beta-Hexachlorocyclohexane)										
Chlordane (Total)	0.228	J1	0.0200	ug/L	0.480	0.0103	45.3	60-140	65.2	40
cis-Chlordane (alpha-Chlordane)	0.0569	J1	0.0200	ug/L	0.120	<0.0200	47.4	45-140	57.9	35
delta-BHC	0.0548	J1	0.00900	ug/L	0.120	0.00394	42.4	19-140	81.7	52
Dieldrin	0.0555	J1	0.00300	ug/L	0.120	0.00441	42.6	36-146	66.2	49
Endosulfan I	0.0564	J1	0.0100	ug/L	0.120	0.00563	42.3	45-153	68.4	28
Endosulfan II	0.0570	J1	0.00300	ug/L	0.120	<0.00300	47.5	1-202	64.4	53
Endosulfan sulfate	0.0490	J1	0.0400	ug/L	0.120	<0.0400	40.8	26-144	77.1	38
Endrin	0.0654	J1	0.00600	ug/L	0.120	0.0492	13.5	30-147	69.4	48
Endrin aldehyde	0.0467	J1	0.0200	ug/L	0.120	0.00803	32.3	60-140	41.6	40
Endrin ketone	0.0471	J1, J	0.0700	ug/L	0.120	<0.0700	39.3	60-140	78.8	40

\* A = Accredited, N = Not Accredited or Accreditation not available



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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2486 - EPA 608 SPE (Continued)**

**Matrix Spike Dup (BGL2486-MSD1)**

**Source: 23L2149-02**

Prepared: 12/14/2023 Analyzed: 12/20/2023

gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.0736	J1	0.00300	ug/L	0.120	0.00673	55.7	32-140	78.6	39
gamma-Chlordane	0.0610	J1	0.0200	ug/L	0.120	<0.0200	50.8	45-140	56.0	35
Heptachlor	0.0530	J1	0.00600	ug/L	0.120	0.00661	38.7	34-140	81.9	43
Heptachlor epoxide	0.0567	J1	0.0100	ug/L	0.120	<0.0100	47.2	37-142	63.6	26
Methoxychlor	0.0241	J1, J	0.0400	ug/L	0.120	0.0205	3.06	60-140	62.0	40
Surrogate: 2,4,5,6			0.0672	ug/L	0.120		56.0	25.2-154		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.0616	ug/L	0.120		51.3	41.2-118		



M.M.I.A., Inc.  
P.O. Box 9  
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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2105 - EPA 200.8**

**Blank (BGL2105-BLK1)**

Prepared: 12/13/2023 Analyzed: 12/14/2023

Aluminum	<2.50	U	2.50	ug/L						
Antimony	<5.00	U	5.00	ug/L						
Barium	<3.00	U	3.00	ug/L						
Beryllium	<0.500	U	0.500	ug/L						
Cadmium	<1.00	U	1.00	ug/L						
Chromium	<3.00	U	3.00	ug/L						
Copper	<2.00	U	2.00	ug/L						
Nickel	<2.00	U	2.00	ug/L						
Silver	<0.500	U	0.500	ug/L						
Thallium	<0.500	U	0.500	ug/L						
Zinc	<5.00	U	5.00	ug/L						

**Blank (BGL2105-BLK2)**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Arsenic	<0.500	U	0.500	ug/L						
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**Blank (BGL2105-BLK4)**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Lead	<0.500	U	0.500	ug/L						
Selenium	<5.00	U	5.00	ug/L						

**LCS (BGL2105-BS1)**

Prepared: 12/13/2023 Analyzed: 12/14/2023

Aluminum	268		2.50	ug/L	250		107	85-115		
Antimony	112		1.00	ug/L	100		112	85-115		
Barium	321		3.00	ug/L	300		107	85-115		
Beryllium	20.6		0.200	ug/L	20.0		103	85-115		
Cadmium	106		1.00	ug/L	100		106	85-115		
Chromium	328		3.00	ug/L	300		109	85-115		
Copper	110		2.00	ug/L	100		110	85-115		
Nickel	106		2.00	ug/L	100		106	85-115		
Silver	50.7		0.500	ug/L	50.0		101	85-115		
Thallium	50.1		0.500	ug/L	50.0		100	85-115		
Zinc	207		2.00	ug/L	200		104	85-115		





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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2105 - EPA 200.8 (Continued)**

**LCS (BGL2105-BS2)**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Arsenic	52.3		0.500	ug/L	50.0	105	85-115
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**LCS (BGL2105-BS4)**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Lead	51.9		0.500	ug/L	50.0	104	85-115
Selenium	214		5.00	ug/L	200	107	85-115

**Duplicate (BGL2105-DUP1)**

**Source: 23L2149-02**

Prepared: 12/13/2023 Analyzed: 12/14/2023

Aluminum	20.2		2.50	ug/L	20.0	1.14	20
Antimony	0.505	U	1.00	ug/L	0.518	2.54	20
Barium	133		3.00	ug/L	138	3.46	20
Beryllium	<0.200	U	0.200	ug/L	<0.200		20
Cadmium	0.0160	U	1.00	ug/L	0.0150	6.45	20
Chromium	<3.00	U	3.00	ug/L	0.212	200	20
Copper	4.32		2.00	ug/L	4.64	6.94	20
Nickel	1.01	U	2.00	ug/L	1.08	6.53	20
Silver	0.0140	U	0.500	ug/L	0.00700	66.7	20
Thallium	<0.500	U	0.500	ug/L	<0.500		20
Zinc	40.4		2.00	ug/L	40.5	0.452	20

**Duplicate (BGL2105-DUP2)**

**Source: 23L2777-02**

Prepared: 12/13/2023 Analyzed: 12/14/2023

Aluminum	7.68		2.50	ug/L	7.42	3.52	20
Antimony	0.547	U	1.00	ug/L	0.508	7.39	20
Barium	134		3.00	ug/L	131	2.60	20
Beryllium	<0.200	U	0.200	ug/L	<0.200		20
Cadmium	<1.00	U	1.00	ug/L	<1.00		20
Chromium	0.110	U	3.00	ug/L	0.0920	17.8	20
Copper	5.09		2.00	ug/L	4.82	5.29	20
Nickel	1.05	U	2.00	ug/L	1.03	1.83	20
Silver	<0.500	U	0.500	ug/L	<0.500		20
Thallium	<0.500	U	0.500	ug/L	<0.500		20
Zinc	37.8		2.00	ug/L	39.0	3.11	20





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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2105 - EPA 200.8 (Continued)**

**Duplicate (BGL2105-DUP3)**

**Source: 23L2149-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Arsenic	1.54		0.500	ug/L		1.69			8.97	20
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**Duplicate (BGL2105-DUP4)**

**Source: 23L2777-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Arsenic	2.46		0.500	ug/L		2.61			5.75	20
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**Duplicate (BGL2105-DUP7)**

**Source: 23L2149-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Lead	0.138	U	0.500	ug/L		0.148			6.99	20
Selenium	1.26	U	5.00	ug/L		<5.00			200	20

**Duplicate (BGL2105-DUP8)**

**Source: 23L2777-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Lead	0.0770	U	0.500	ug/L		0.0790			2.56	20
Selenium	<5.00	U	5.00	ug/L		<5.00				20

**Matrix Spike (BGL2105-MS1)**

**Source: 23L2149-02**

Prepared: 12/13/2023 Analyzed: 12/14/2023

Aluminum	283		2.50	ug/L	250	20.0	105	75-125
Antimony	110		1.00	ug/L	100	0.518	109	75-125
Barium	454		3.00	ug/L	300	138	105	75-125
Beryllium	19.0		0.200	ug/L	20.0	<0.200	95.0	75-125
Cadmium	98.0		1.00	ug/L	100	0.0150	98.0	75-125
Chromium	306		3.00	ug/L	300	0.212	102	75-125
Copper	110		2.00	ug/L	100	4.64	106	75-125
Nickel	100		2.00	ug/L	100	1.08	99.2	75-125
Silver	50.4		0.500	ug/L	50.0	0.00700	101	75-125
Thallium	50.0		0.500	ug/L	50.0	<0.500	100	75-125
Zinc	241		2.00	ug/L	200	40.5	100	75-125

**Matrix Spike (BGL2105-MS2)**

**Source: 23L2777-02**

Prepared: 12/13/2023 Analyzed: 12/14/2023

Aluminum	256		2.50	ug/L	250	7.42	99.6	75-125
Antimony	103		1.00	ug/L	100	0.508	102	75-125
Barium	443		3.00	ug/L	300	131	104	75-125
Beryllium	18.5		0.200	ug/L	20.0	<0.200	92.7	75-125
Cadmium	95.6		1.00	ug/L	100	<1.00	95.6	75-125
Chromium	296		3.00	ug/L	300	0.0920	98.8	75-125
Copper	105		2.00	ug/L	100	4.82	100	75-125
Nickel	91.7		2.00	ug/L	100	1.03	90.7	75-125
Silver	46.9		0.500	ug/L	50.0	<0.500	93.7	75-125
Thallium	47.3		0.500	ug/L	50.0	<0.500	94.5	75-125
Zinc	241		2.00	ug/L	200	39.0	101	75-125



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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2105 - EPA 200.8 (Continued)**

**Matrix Spike (BGL2105-MS3)**

**Source: 23L2149-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Arsenic	54.8		0.500	ug/L	50.0	1.69	106	75-125		
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**Matrix Spike (BGL2105-MS4)**

**Source: 23L2777-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Arsenic	53.2		0.500	ug/L	50.0	2.61	101	75-125		
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**Matrix Spike (BGL2105-MS7)**

**Source: 23L2149-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Lead	50.0		0.500	ug/L	50.0	0.148	99.7	75-125		
Selenium	200		5.00	ug/L	200	<5.00	99.9	75-125		

**Matrix Spike (BGL2105-MS8)**

**Source: 23L2777-02**

Prepared: 12/13/2023 Analyzed: 12/15/2023

Lead	48.7		0.500	ug/L	50.0	0.0790	97.3	75-125		
Selenium	186		5.00	ug/L	200	<5.00	93.1	75-125		

**Batch: BGL2651 - EPA 1631**

**Blank (BGL2651-BLK1)**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	<0.00500	U	0.00500	ug/L						
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**Blank (BGL2651-BLK2)**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	<0.00500	U	0.00500	ug/L						
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**Blank (BGL2651-BLK3)**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	<0.00500	U	0.00500	ug/L						
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**Matrix Spike (BGL2651-MS1)**

**Source: 23L0062-02**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	0.0429		0.00526	ug/L	0.0526	0.00316	75.5	71-125		
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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL2651 - EPA 1631 (Continued)**

**Matrix Spike (BGL2651-MS2)**

**Source: 23L0063-02**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	0.0415		0.00526	ug/L	0.0526	0.00288	73.4	71-125		
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**Matrix Spike Dup (BGL2651-MSD1)**

**Source: 23L0062-02**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	0.0416		0.00526	ug/L	0.0526	0.00316	72.9	71-125	3.17	24
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**Matrix Spike Dup (BGL2651-MSD2)**

**Source: 23L0063-02**

Prepared: 12/15/2023 Analyzed: 12/20/2023

Mercury	0.0413		0.00526	ug/L	0.0526	0.00288	72.9	71-125	0.570	24
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**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Metals, Dissolved**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL4871 - Cr VI**

**Matrix Spike (BGL4871-MS1)**

**Source: 23L2149-02RE1**

Prepared & Analyzed: 12/29/2023

Chromium (VI)	235		3.02	ug/L	251	1.97	92.9	70-130		
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**Matrix Spike Dup (BGL4871-MSD1)**

**Source: 23L2149-02RE1**

Prepared & Analyzed: 12/29/2023

Chromium (VI)	235		3.02	ug/L	251	1.97	92.9	70-130	0.0470	20
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**Reported:**  
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**Quality Control**  
(Continued)

**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1320 - TDS</b>										
<b>Blank (BGL1320-BLK1)</b>										
Residue-filterable (TDS)	<10.0	U	10.0	mg/L	Prepared: 12/8/2023 Analyzed: 12/11/2023					
<b>LCS (BGL1320-BS1)</b>										
Residue-filterable (TDS)	150		10.0	mg/L	150		100	90-110		
<b>Duplicate (BGL1320-DUP1)</b>										
Residue-filterable (TDS)	766		10.0	mg/L		796			3.84	10
<b>Duplicate (BGL1320-DUP2)</b>										
Residue-filterable (TDS)	494		10.0	mg/L		472			4.55	10
<b>Batch: BGL1322 - TSS</b>										
<b>Blank (BGL1322-BLK1)</b>										
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L	Prepared: 12/8/2023 Analyzed: 12/11/2023					
<b>LCS (BGL1322-BS1)</b>										
Residue-nonfilterable (TSS)	99.5		1.00	mg/L	100		99.5	85-115		
<b>Duplicate (BGL1322-DUP1)</b>										
Residue-nonfilterable (TSS)	3.37		1.00	mg/L		3.37			0.00	10
<b>Duplicate (BGL1322-DUP2)</b>										
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L		<1.00				10
<b>Batch: BGL1329 - CBOD-5210</b>										
<b>LCS (BGL1329-BS1)</b>										
Carbonaceous BOD (CBOD)	168	J1		mg/L	198		84.9	85-115		





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**Reported:**  
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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1329 - CBOD-5210 (Continued)</b>										
<b>Duplicate (BGL1329-DUP1)</b>			<b>Source: 23L2071-02</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	4.24		2.40	mg/L		4.64			8.99	40
<b>Duplicate (BGL1329-DUP2)</b>			<b>Source: 23L1912-04</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	J4, U	2.40	mg/L		<2.40				40
<b>Duplicate (BGL1329-DUP3)</b>			<b>Source: 23L0076-01</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		<2.40				40
<b>Duplicate (BGL1329-DUP4)</b>			<b>Source: 23L2061-02</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		<2.40				40
<b>Duplicate (BGL1329-DUP5)</b>			<b>Source: 23L1965-02</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	J4, U	2.40	mg/L		4.22			200	40
<b>Duplicate (BGL1329-DUP6)</b>			<b>Source: 23L2041-02</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		2.64			200	40
<b>Duplicate (BGL1329-DUP7)</b>			<b>Source: 23L2042-02</b>		Prepared: 12/29/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	4.21		2.40	mg/L		4.29			2.02	40
<b>Duplicate (BGL1329-DUP8)</b>			<b>Source: 23L2095-02</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	J4, U	2.40	mg/L		<2.40				40
<b>Duplicate (BGL1329-DUP9)</b>			<b>Source: 23L1959-02</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	5.58		2.40	mg/L		6.15			9.69	40
<b>Duplicate (BGL1329-DUPA)</b>			<b>Source: 23L0363-01</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023					
Carbonaceous BOD (CBOD)	<2.40	J4, U	2.40	mg/L		<2.40				40



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1329 - CBOD-5210 (Continued)**

<b>Duplicate (BGL1329-DUPB)</b>		<b>Source: 23L2090-04</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023						
Carbonaceous BOD (CBOD)	153		50.0	mg/L		155			1.57	20
<b>Duplicate (BGL1329-DUPC)</b>		<b>Source: 23L1976-01</b>		Prepared: 12/8/2023 Analyzed: 12/13/2023						
Carbonaceous BOD (CBOD)	141	J1	50.0	mg/L		173			20.1	20

**Batch: BGL1331 - Alkalinity**

<b>Blank (BGL1331-BLK1)</b>				Prepared & Analyzed: 12/8/2023						
Conductivity	<2.00	U	2.00	umhos/cm @ 25 °C						
<b>LCS (BGL1331-BS1)</b>				Prepared & Analyzed: 12/8/2023						
Conductivity	1410			umhos/cm @ 25 °C	1410		99.9	90-110		
<b>QSC (BGL1331-BS2)</b>				Prepared & Analyzed: 12/8/2023						
Conductivity	512			umhos/cm @ 25 °C	500		102	90-110		
<b>LCS (BGL1331-BS4)</b>				Prepared & Analyzed: 12/8/2023						
Alkalinity as CaCO <sub>3</sub>	95.4			mg/L	100		95.4	90-110		
<b>Duplicate (BGL1331-DUP1)</b>		<b>Source: 23L2031-01</b>		Prepared & Analyzed: 12/8/2023						
Alkalinity as CaCO <sub>3</sub>	16.0		10.0	mg/L		16.5			3.51	15
Conductivity	815		2.00	umhos/cm @ 25 °C		823			0.977	15
<b>Duplicate (BGL1331-DUP2)</b>		<b>Source: 23L1917-02</b>		Prepared & Analyzed: 12/8/2023						
Conductivity	1030		2.00	umhos/cm @ 25 °C		1020			1.08	15
Alkalinity as CaCO <sub>3</sub>	50.5		10.0	mg/L		50.2			0.735	15



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1481 - EPA 300.0</b>										
<b>Duplicate (BGL1481-DUP1)</b>			<b>Source: 23J2613-01</b>		<b>Prepared &amp; Analyzed: 12/8/2023</b>					
Nitrate as N	<100	U	100	ug/L		<100				15
Fluoride	1.33		0.250	mg/L		1.30			2.13	15
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Chloride	85.5		10.0	mg/L		87.0			1.68	15
Sulfate	16.8		1.00	mg/L		16.8			0.286	15
<b>Duplicate (BGL1481-DUP2)</b>			<b>Source: 23L1997-02RE1</b>		<b>Prepared &amp; Analyzed: 12/8/2023</b>					
Nitrate as N	20000		1000	ug/L		19900			0.600	15
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Sulfate	35.8		1.00	mg/L		35.7			0.230	15
Fluoride	0.0870	U	0.250	mg/L		0.0830			4.71	15
Chloride	205		10.0	mg/L		204			0.522	15
<b>MRL Check (BGL1481-MRL1)</b>					<b>Prepared &amp; Analyzed: 12/8/2023</b>					
Fluoride	0.276		0.250	mg/L	0.250		110	50-150		
Sulfate	1.12		1.00	mg/L	1.00		112	50-150		
Nitrite as N	56.0		50.0	ug/L	50.0		112	50-150		
Chloride	1.07		1.00	mg/L	1.00		107	50-150		
Nitrate as N	107		100	ug/L	100		107	50-150		
<b>Matrix Spike (BGL1481-MS1)</b>			<b>Source: 23J2613-01</b>		<b>Prepared &amp; Analyzed: 12/8/2023</b>					
Fluoride	6.68		0.278	mg/L	5.56	1.30	96.8	80-120		
Nitrite as N	1770	J1	55.6	ug/L	1110	<55.6	160	80-120		
Sulfate	39.2		1.11	mg/L	22.2	16.8	101	80-120		
Nitrate as N	2130		111	ug/L	2220	<111	95.8	80-120		
Chloride	99.8		11.1	mg/L	11.1	87.0	115	80-120		
<b>Matrix Spike (BGL1481-MS2)</b>			<b>Source: 23L1997-02RE1</b>		<b>Prepared &amp; Analyzed: 12/8/2023</b>					
Nitrite as N	2470	J1	55.6	ug/L	1110	<55.6	223	80-120		
Nitrate as N	26800	J1, L	111	ug/L	2220	19900	309	80-120		
Sulfate	60.0		1.11	mg/L	22.2	35.7	109	80-120		
Chloride	242	J1, L	1.11	mg/L	11.1	204	335	80-120		
Fluoride	5.80		0.278	mg/L	5.56	0.0830	103	80-120		

\* A = Accredited, N = Not Accredited or Accreditation not available



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**Reported:**  
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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1624 - CN-4500</b>										
<b>Blank (BGL1624-BLK1)</b>										
Total Cyanide	<10.0	U	10.0	ug/L	Prepared: 12/11/2023 Analyzed: 12/12/2023					
<b>LCS (BGL1624-BS1)</b>										
Total Cyanide	197		10.0	ug/L	200		98.3	90-110		
<b>QCS (BGL1624-BS2)</b>										
Total Cyanide	174	J1	10.0	ug/L	200		87.1	90-110		
<b>MRL Check (BGL1624-MRL1)</b>										
Total Cyanide	7.54	U	10.0	ug/L	10.0		75.4	50-150		
<b>Matrix Spike (BGL1624-MS1)</b>										
	<b>Source: 23K4332-05</b>			Prepared: 12/11/2023 Analyzed: 12/12/2023						
Total Cyanide	182		10.0	ug/L	200	<10.0	91.1	80-120		
<b>Matrix Spike Dup (BGL1624-MSD1)</b>										
	<b>Source: 23K4332-05</b>			Prepared: 12/11/2023 Analyzed: 12/12/2023						
Total Cyanide	176		10.0	ug/L	200	<10.0	88.2	80-120	3.32	20
<b>Batch: BGL1803 - NH3-N SEAL-350.1</b>										
<b>Matrix Spike (BGL1803-MS1)</b>										
	<b>Source: 23L2563-01</b>			Prepared & Analyzed: 12/12/2023						
Ammonia as N	48.3		2.50	mg/L	0.400	47.9	96.0	90-110		
<b>Matrix Spike (BGL1803-MS2)</b>										
	<b>Source: 23L2562-01</b>			Prepared & Analyzed: 12/12/2023						
Ammonia as N	49.1		2.50	mg/L	0.400	48.7	105	90-110		
<b>Matrix Spike Dup (BGL1803-MSD1)</b>										
	<b>Source: 23L2563-01</b>			Prepared & Analyzed: 12/12/2023						
Ammonia as N	48.4		2.50	mg/L	0.400	47.9	104	90-110	0.0623	20





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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1803 - NH3-N SEAL-350.1 (Continued)</b>										
<b>Matrix Spike Dup (BGL1803-MSD2)</b>			<b>Source: 23L2562-01</b>		Prepared & Analyzed: 12/12/2023					
Ammonia as N	49.1		2.50	mg/L	0.400	48.7	98.8	90-110	0.0509	20
<b>Batch: BGL1872 - TKN T</b>										
<b>Blank (BGL1872-BLK1)</b>					Prepared: 12/12/2023 Analyzed: 12/13/2023					
Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L						
<b>LCS (BGL1872-BS1)</b>					Prepared: 12/12/2023 Analyzed: 12/13/2023					
Total Kjeldahl Nitrogen - (TKN)	1.90		1.00	mg/L	2.02		94.3	85-115		
<b>Duplicate (BGL1872-DUP1)</b>			<b>Source: 23L2023-02</b>		Prepared: 12/12/2023 Analyzed: 12/13/2023					
Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L	<1.00		20			
<b>Matrix Spike (BGL1872-MS1)</b>			<b>Source: 23L2023-02</b>		Prepared: 12/12/2023 Analyzed: 12/13/2023					
Total Kjeldahl Nitrogen - (TKN)	0.336	J1, U	1.00	mg/L	4.00	<1.00	8.40	85-115		
<b>Batch: BGL1940 - Phosphorus EPA 365.1</b>										
<b>LCS (BGL1940-BS1)</b>					Prepared: 12/12/2023 Analyzed: 12/15/2023					
Total Phosphorus	0.240		0.0100	mg/L	0.250		96.0	90-110		
<b>Matrix Spike (BGL1940-MS1)</b>			<b>Source: 23L1371-01</b>		Prepared: 12/12/2023 Analyzed: 12/15/2023					
Total Phosphorus	5.25		0.200	mg/L	5.00	0.512	94.8	80-120		
<b>Matrix Spike (BGL1940-MS2)</b>			<b>Source: 23L2077-02</b>		Prepared: 12/12/2023 Analyzed: 12/15/2023					
Total Phosphorus	14.2		0.200	mg/L	5.00	8.76	109	80-120		





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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL1940 - Phosphorus EPA 365.1 (Continued)**

**Matrix Spike Dup (BGL1940-MSD1)**

**Source: 23L1371-01**

Prepared: 12/12/2023 Analyzed: 12/15/2023

Total Phosphorus	5.29		0.200	mg/L	5.00	0.512	95.6	80-120	0.797	20
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**Matrix Spike Dup (BGL1940-MSD2)**

**Source: 23L2077-02**

Prepared: 12/12/2023 Analyzed: 12/15/2023

Total Phosphorus	13.6		0.200	mg/L	5.00	8.76	96.2	80-120	4.55	20
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**Batch: BGL2370 - EPA 1664**

**Blank (BGL2370-BLK1)**

Prepared & Analyzed: 12/14/2023

n-Hexane Extractable Material (O&G)	<5.00	U	5.00	mg/L						
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**LCS (BGL2370-BS1)**

Prepared & Analyzed: 12/14/2023

n-Hexane Extractable Material (O&G)	37.8		5.00	mg/L	40.0		94.4	77.5-114.5		
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**LCS Dup (BGL2370-BSD1)**

Prepared & Analyzed: 12/14/2023

n-Hexane Extractable Material (O&G)	36.7		5.00	mg/L	40.0		91.8	77.5-114.5	2.87	20
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**Matrix Spike (BGL2370-MS1)**

**Source: 23K4332-14**

Prepared & Analyzed: 12/14/2023

n-Hexane Extractable Material (O&G)	70.9	J1	5.00	mg/L	40.0	<5.00	177	77.5-114.5		
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**Batch: BGL4831 - CN-4500**

**Blank (BGL4831-BLK1)**

Prepared & Analyzed: 12/29/2023

Amenable Cyanide	<10.0	U	10.0	ug/L						
Total Cyanide	<10.0	U	10.0	ug/L						

**LCS (BGL4831-BS1)**

Prepared & Analyzed: 12/29/2023

Total Cyanide	189		10.0	ug/L	200		94.7	90-110		
Amenable Cyanide	186		10.0	ug/L	200		93.2	90-110		



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGL4831 - CN-4500 (Continued)**

**QCS (BGL4831-BS2)**

Prepared & Analyzed: 12/29/2023

Total Cyanide	198		10.0	ug/L	200		98.9	90-110		
Amenable Cyanide	193		10.0	ug/L	200		96.4	90-110		

**MRL Check (BGL4831-MRL1)**

Prepared & Analyzed: 12/29/2023

Amenable Cyanide	11.1		10.0	ug/L	10.0		111	50-150		
Total Cyanide	13.9		10.0	ug/L	10.0		139	50-150		

**Matrix Spike (BGL4831-MS1)**

Source: 23I4409-03RE4

Prepared & Analyzed: 12/29/2023

Amenable Cyanide	176		10.0	ug/L	200	<10.0	87.9	80-120		
Total Cyanide	185		10.0	ug/L	200	15.8	84.5	80-120		

**Matrix Spike Dup (BGL4831-MSD1)**

Source: 23I4409-03RE4

Prepared & Analyzed: 12/29/2023

Amenable Cyanide	151	J1	10.0	ug/L	200	<10.0	75.4	80-120	15.3	20
Total Cyanide	157	J1	10.0	ug/L	200	15.8	70.7	80-120	16.1	20



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

**Quality Control**  
(Continued)

**Microbiology**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGL1225 - TC EC Quantitray</b>										
<b>Blank (BGL1225-BLK1)</b>										
Escherichia coli (E. coli)	<1.00	U	1.00	MPN/100 mL						
Prepared: 12/7/2023 Analyzed: 12/8/2023										
<b>Duplicate (BGL1225-DUP1)</b>										
Escherichia coli (E. coli)	2.00		1.00	MPN/100 mL		2.00			0.00	200
Source: 23L2152-01 Prepared: 12/7/2023 Analyzed: 12/8/2023										



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

## Sample Condition Checklist

### Work Order: 23L1769

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

### Work Order: 23L1770

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

### Work Order: 23L2149

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



M.M.I.A., Inc.  
P.O. Box 9  
Spring, TX 77383

**Reported:**  
01/04/2024 10:44

## Term and Qualifier Definitions

Item	Definition
B	Analyte was found in the associated method blank.
BB	The sample was received unpreserved. Sample was preserved at time of receipt or at time of sample preparation
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
HR	The rerun parameter was analyzed outside the method specified holding time.
J	Estimated value - The reported value is between the detection limit and reporting limit.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
J4	Estimated value and sample is less than value - No dilution produced a depletion of 2 mg/L of DO or greater, oxygen demand of sample was less than anticipated.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.





# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdlis.com  
TCEQ T104704238-23-39



Page 1 of 1

23L1769

Lab PM : Deena Higginbotham	Project Name : Timberlane - Outfall 001 3 Part Grab Comp 1	Schedule Comments:
M.M.I.A., Inc. Sergio Torres P.O. Box 9 Spring, TX 77383 Phone: 281-651-1618	Project Comments: COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23L1769-01	18 Mohm DI		12/6/2023 640	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	
23L1769-02	Outfall 001 3 Part Grab		12/6/2023 /	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 Composite VOA BrCl 4°C	

Field Remarks:		Lab Preservation: H2SO4		HNO3		NaOH		Other:	
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	Received on Ice: Yes / No	Temperature: °C	
Print Name	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	Samples Accepted: Yes / No	Thermometer ID:	
Affiliation	Relinquished To Lab By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time			
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Containers: Yes / No	Appropriate Volume: Yes / No	Coolers Intact: Yes / No	Received on Ice: Yes / No	Temperature: °C			
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:					

Spring South



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com  
TCEQ T104704238-23-39



Page 1 of 1

23L1770

Lab PM : Deena Higginbotham	Project Name : Timberlane - Outfall 001 3 Part Grab Comp 2		Schedule Comments:	
M.M.I.A., Inc. Sergio Torres P.O. Box 9 Spring, TX 77383 Phone: 281-651-1618	Project Comments: 23118 1/2 Grand Rapids Ln **Operator: Josh Johnson - 281-382-8763** COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23L1770-01	18 Mohm DI		12/6/2023 1310	AQ Grab	A Glass 4oz Boston Round A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 BrCl BrCl Composite VOA 4°C	
23L1770-02	Outfall 001 3 Part Grab		12/6/2023 /	AQ Grab			

Field Remarks:		Lab Preservation: H2SO4		HNO3		NaOH		Other:	
Sampler (Signature)		Relinquished By: (Signature)		Date/Time		Received By: (Signature)		Date/Time	
Print Name		Relinquished By: (Signature)		Date/Time		Received By: (Signature)		Date/Time	
Affiliation		Relinquished To Lab By: (Signature)		Date/Time		Received for Laboratory By: (Signature)		Date/Time	
Custody Seal: Yes / No		COC Labels Agree: Yes / No		Appropriate Volume: Yes / No		Received on Ice: Yes / No		Temperature: °C	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Coolers Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID:	

Spring South

wko\_NWDLIS\_COC\_LS Revision 4.1 Effective: 2/17/2022



VIRGINIA WATER RECOVERY  
North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdis.com  
TCEQ T104704238-23-39

23L2149

Lab PM : Deena Higginbotham	Project Name : Timberlane - Permit Renewal		Schedule Comments:	
M.M.I.A., Inc. Sergio Torres P.O. Box 9 Spring, TX 77383 Phone: 281-651-1618	Project Comments: DO reading must be recorded before Sam Mark out Duplicated Outfall samples on the regular chain			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23L2149-01	Outfall 001		12/7/2023	AQ Grab	A HDPE 250mL NaOH B Glass Wide 1L w/ Teflon-lined Lid C HDPE S250mL Na2S2O3	TC EC-9223 O&G-1664 CN AMEN-4500 CN T-4500	DO Field Flow MGD Field pH Field Total Chlorine Residual WW Field  <u>7.37</u> <u>7.38</u> <u>7.36</u> <u>0.0</u>
			0730				





**North Water District Laboratory Services**

130 S Trade Center Pkwy Conroe Tx 77385

O. Hase Center Hwy, Suite 1A1  
(936) 321-6060 - lab@nwdls.com

TCFO T104704238-23-39

(Continued)

2312149

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# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdlis.com

TCEQ T104704238-23-39



Page 3 of 3

23L2149

(Continued)

Lab PM : Deena Higginbotham

Project Name : Timberlane - Permit Renewal

Schedule Comments:

M.M.I.A., Inc.  
Sergio Torres  
P.O. Box 9  
Spring, TX 77383  
Phone: 281-651-1618

Project Comments: DO reading must be recorded before 9am  
Mark out Duplicated Outfall samples on the regular chain

23L2149-03	Outfall 001 3 Part Grab	12/7/2023	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 Composite VOA BrCl 4°C	
23L2149-04	Outfall 001 3 Part Grab	12/7/2023	AQ Grab 3-Part Cor		Sub_VOA-624 4°C	
23L2149-05	18 Mohm DI	12/7/2023	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	

Field Remarks:

Lab Preservation: H2SO4  
(Circle and  
Write ID Below)

HNO3

NaOH

Other:

Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By (Signature)	Date/Time
HWR	Heath Reine			
Affiliation	Relinquished To Lab By (Signature)	Date/Time	Received for Laboratory By (Signature)	Date/Time
NWDLIS	HWR	12-7-23		
Custody Seal: Yes / No	COC Labels Agree Yes / No	Appropriate Containers Yes / No	Received on Ice Yes / No	Temperature °C
Yes / No	Yes / No	Yes / No	Yes / No	
Container Intact: Yes / No	Appropriate Containers Yes / No	Yes / No	Samples Accepted Yes / No	Thermometer ID
Yes / No	Yes / No	Yes / No	Yes / No	

Spring South

NWDLIS COC-LS Revision 4.1 Effective: 2/1/2023



# Laboratory Analysis Report

Total Number of Pages: 6

Job ID : 23121603



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

Client Project Name :

23L2149

Report To : Client Name: NWDLS P.O.#.: 23L2149  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 12/07/23  
City, State, Zip: Conroe, Texas, 77385

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23L2149-02	Waste Water	23121603.01

A handwritten signature in black ink, appearing to read 'Senthilkumar Sevukan'.

Released By: Senthilkumar Sevukan  
Title: Vice President Operations  
Date: 12/21/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 12/15/2023 08:30

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23121603

Date: 12/21/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
J	Estimation. Below calibration range but above MDL	RptLimit	Reporting Limit
LCS	Laboratory Check Standard	SDL	Sample Detection Limit
LCSD	Laboratory Check Standard Duplicate	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit
MQL	Unadjusted Minimum Quantitation Limit		

## Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---

**LABORATORY TEST RESULTS**

Job ID : 23121603

Date 12/21/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23L2149

Client Sample ID: 23L2149-02

Job Sample ID: 23121603.01

Date Collected: 12/07/23

Sample Matrix Waste Water

Time Collected: 05:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 608.3	Polychlorinated Biphenyls									
	Aroclor 1016	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Aroclor 1221	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Aroclor 1232	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Aroclor 1242	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Aroclor 1248	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Aroclor 1254	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Aroclor 1260	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Total PCBs	<0.03	ug/L	1.00	0.03	0.0500		U	12/19/23 15:27	MQ
	Decachlorobiphenyl(surr)	65	%	1.00		35-129			12/19/23 15:27	MQ
	Tetrachloro-m-xylene(surr)	77	%	1.00		27-127			12/19/23 15:27	MQ

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



**Job ID :** 23121603

**Date :** 12/21/2023

**Analysis :** Polychlorinated Biphenyls **Method :** EPA 608.3 **Reporting Units :** ug/L

**QC Batch ID :** Qb231219145 **Created Date :** 12/19/23 **Created By :** mqiao

**Samples in This QC Batch :** 23121603.01

**Extraction :** PB23121957 **Prep Method :** EPA 608.3 **Prep Date :** 12/19/23 09:30 **Prep By :** Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Aroclor 1016	12674-11-2	< MDL	ug/L	1.00	0.05	0.025		
Aroclor 1221	11104-28-2	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1232	11141-16-5	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1242	53469-21-9	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1248	12672-29-6	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1254	11097-69-1	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1260	11096-82-5	< MDL	ug/L	1.00	0.05	0.026		
Total PCBs		< MDL	ug/L	1.00	0.05	0.026		
Decachlorobiphenyl(surr)	2051-24-3	117	%	1.00				
Tetrachloro-m-xylene(surr)	877-09-8	98.5	%	1.00				

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Aroclor 1016	2	1.83	91.6	2	1.74	87	5.2	18	53.7-136	
Aroclor 1260	2	2.12	106	2	2.07	104	2.3	18	57.9-146	
Total PCBs	4	3.95	98.8	4	3.81	95.3	3.6	18	51.7-138	



Job ID:23121603



12/15/2023

NWDLS

AMS

**SUBCONTRACT  
ORDER****Sending Laboratory:**

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

**Subcontracted Laboratory:**

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

**Work Order: 23L2149**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23L2149-02 Waste Water Sampled: 12/07/2023 05:00

PCB-608	12/21/2023	12/01/2024 05:00	
Analyte(s):			
2,4,5,6 Tetrachloro-m-xylene-surr	Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	
Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	
Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)	Decachlorobiphenyl-surr	
PCBs, Total			

Containers Supplied:

Released By

Date

Received By

Date

*[Signature]* 12-15-23 08:30 *[Signature]* 12/15/23 08:30  
2.4-6  
msb





## Sample Condition Checklist

A&B JobID : <b>23121603</b>	Date Received : <b>12/15/2023</b>	Time Received : <b>8:30AM</b>
Client Name : <b>NWDLS</b>		
Temperature : <b>2.4°C</b>	Sample pH : <b>NA</b>	
Thermometer ID : <b>IR5</b>	pH Paper ID : <b>NA</b>	
Perservative :	Lot# :	

	Check Points	Yes	No	N/A
1.	Cooler Seal present and signed.		X	
2.	Sample(s) in a cooler.	X		
3.	If yes, ice in cooler.	X		
4.	Sample(s) received with chain-of-custody.	X		
5.	C-O-C signed and dated.	X		
6.	Sample(s) received with signed sample custody seal.		X	
7.	Sample containers arrived intact. (If No comment)	X		
8.	Matrix:            Water <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Liquid <input type="checkbox"/> Sludge <input type="checkbox"/> Solid <input type="checkbox"/> Cassette <input type="checkbox"/> Tube <input type="checkbox"/> Bulk <input type="checkbox"/> Badge <input type="checkbox"/> Food <input type="checkbox"/> Other <input type="checkbox"/>			
9.	Samples were received in appropriate container(s)	X		
10.	Sample(s) were received with Proper preservative			X
11.	All samples were tagged or labeled.	X		
12.	Sample ID labels match C-O-C ID's.	X		
13.	Bottle count on C-O-C matches bottles found.	X		
14.	Sample volume is sufficient for analyses requested.	X		
15.	Samples were received with in the hold time.	X		
16.	VOA vials completely filled.			X
17.	Sample accepted.	X		
18.	Has client been contacted about sub-out			X

**Comments : Include actions taken to resolve discrepancies/problem:**

Brought by : Client

Received by : Amber

Check in by/date : Amber / 12/15/2023

ab-s005-1123

Project  
1083949

## NWDS-G

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Printed 12/27/2023 11:53

# TABLE OF CONTENTS

23L2149

This report consists of this Table of Contents and the following pages:

<u>Report Name</u>	<u>Description</u>	<u>Pages</u>
1083949_r02_01_ProjectSamples	SPL Kilgore Project P:1083949 C:NWDS Project Sample Cross Reference t:304	1
1083949_r03_03_ProjectResults	SPL Kilgore Project P:1083949 C:NWDS Project Results t:304 PO: #26201	2
1083949_r10_05_ProjectQC	SPL Kilgore Project P:1083949 C:NWDS Project Quality Control Groups	1
1083949_r99_09_CoC__1_of_1	SPL Kilgore CoC NWDS 1083949_1_of_1	2
<b>Total Pages:</b>		<b>6</b>

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 7

## SAMPLE CROSS REFERENCE

Project  
**1083949**

North Water District Laboratory  
 Deena McDaniel  
 130 S Trade Center Parkway  
 Conroe, TX 77385

Printed 12/27/2023 Page 1 of 1

Sample	Sample ID	Taken	Time	Received
<b>2255412</b>	23L2149-02	12/07/2023	05:00:00	12/12/2023

Bottle 01 Client Supplied Amber Glass

Bottle 02 Client Supplied Amber Glass

Bottle 03 Prepared Bottle: 632L\632S 2 mL Autosampler Vial (Batch 1094803) Volume: 1.00000 mL <== Derived from 02 ( 970 ml )

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 632	03	1094803	12/12/2023	1096401	12/14/2023

Email: Kilgore.projectmanager@spl-inc.com



Report Page 2 of 7

# NWDS-G

Page 1 of 2

North Water District Laboratory  
 Deena McDaniel  
 130 S Trade Center Parkway  
 Conroe, TX 77385

Project

1083949

Printed: 12/27/2023

23L2149

## RESULTS

### Sample Results

2255412 23L2149-02

Received: 12/12/2023

Non-Potable Water

Collected by: Client  
 Taken: 12/07/2023

North Water District  
 05:00:00

PO: #26201

EPA 632

Prepared: 1094803 12/13/2023 10:20:00 Analyzed 1096401 12/14/2023 21:31:00 BRU

Parameter	Results	Units	RL	Flags	CAS	Bottle
Carbaryl (Sevin)	<1.22	ug/L	1.22		63-25-2	03
Diuron	<0.0464	ug/L	0.0464		330-54-1	03

### Sample Preparation

2255412 23L2149-02

Received: 12/12/2023

#26201

12/07/2023

Prepared: 12/13/2023 16:05:17 Calculated 12/13/2023 16:05:17 CAL

Environmental Fee (per Project)

Verified

EPA 632

Prepared: 1094803 12/13/2023 10:20:00 Analyzed 1094803 12/13/2023 10:20:00 MCC

Liquid-Liquid Extr. W/Hex Ex

1/970 ml 02

EPA 632

Prepared: 1094803 12/13/2023 10:20:00 Analyzed 1096401 12/14/2023 21:31:00 BRU

Carbaryl/Diuron

Entered

03



Report Page 3 of 7

## NWDS-G

Page 2 of 2

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Project  
**1083949**

Printed: 12/27/2023

### Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation

z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EOL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



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# QUALITY CONTROL



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NWDS-G

North Water District Laboratory  
Deena McDaniel  
130 S Trade Center Parkway  
Conroe, TX 77385

Project  
1083949

Printed 12/27/2023

Analytical Set 1096401

EPA 632

## Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Carbaryl (Sevin)	1094803	ND	66.1	2500	ug/L	125780883
Diuron	1094803	217	44.4	45.0	ug/L	125780883

## CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbaryl (Sevin)	1060	1000	ug/L	106	70.0 - 130	125780882
Carbaryl (Sevin)	1080	1000	ug/L	108	70.0 - 130	125780886
Carbaryl (Sevin)	1110	1000	ug/L	111	70.0 - 130	125780888
Carbaryl (Sevin)	1140	1000	ug/L	114	70.0 - 130	125780890
Diuron	1020	1000	ug/L	102	70.0 - 130	125780882
Diuron	1060	1000	ug/L	106	70.0 - 130	125780886
Diuron	1060	1000	ug/L	106	70.0 - 130	125780888
Diuron	1120	1000	ug/L	112	70.0 - 130	125780890

## LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Carbaryl (Sevin)	1094803	923	1040	1000	17.1 - 131	92.3	104	ug/L	11.9	30.0
Diuron	1094803	159	198	1000	0.100 - 138	15.9	19.8	ug/L	21.8	30.0

\* Out RPD is Relative Percent Difference:  $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent:  $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.)



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**Your Lab's letterhead here...**

Address

City, St. Zip

Phone/Fax

**SUBCONTRACT  
ORDER****Sending Laboratory:**

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

**Subcontracted Laboratory:**

Ana-Lab Corporation  
2600 Dudley Road  
Kilgore, TX 75662  
Phone: (903) 984-0551  
Fax: (903) 984-5914

2255412

**Work Order: 23L2149**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

**Sample ID: 23L2149-02 Waste Water Sampled: 12/07/2023 05:00**

Sub\_CBURP-632 12/21/2023 12/14/2023 05:00

Containers Supplied:

See Attached for  
Tracking and Temp.

Released By

hmc  
UPS

Date

12.11.23  
12/12/23  
1105

Received By

UPS

Rayshawn Turner

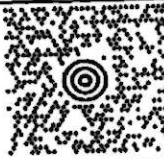



Date

12.11.23  
12/12/23  
1105

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KRYSTAL MOORE 9363216060 NWDL5 130 S TRADE CENTER PKWY CONROE TX 77385		30 LBS	1 OF 1
SHIP TO: ANA-LAB 903-984-0551 ANA-LAB 2600 DUDLEY ROAD KILGORE TX 75662			
		TX 756 0-32 	
UPS NEXT DAY AIR TRACKING #: 1Z 12W 40V 01 9240 7850			1
			
BILLING: P/P			
			
<small>XOL 23.11.22    NV45 50.0A 12/2023</small>			

12/12    1115    RT  
 Date    Time    Tech  
 Temp: 3.5 / 3.4    C  
 Therm#: 6444 Corr Fact: 0.1 C























