

# 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 \*



# 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 \*\*

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

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

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

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

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

#### DOMESTIC WASTEWATER

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

The City of Port Arthur (CN 600132021) operates the Main Wastewater Treatment Facility (RN101701241), a trickling filter facility. The facility is located at 6300 Procter St. Extension, in Port Arthur, Jefferson County, Texas, 77642.

This major permit amendment requests the addition of a second outfall (Outfall 002) to the Main WWTP's discharge permit. Outfall 002 is located in the Jefferson County Drainage District No. 7 (DD7) drainage ditch to the west of the Main WWTP. This application does not request an amendment to increase flow.

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

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### 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.* 

La Ciudad de Port Arthur (CN 600132021) opera la Main Instalación de Tratamiento de Aguas Residuales (RN101701241), una instalación de filtrado percolador. La instalación está ubicada en 6300 Procter St. Extension, en Port Arthur, condado de Jefferson, Texas, 77642.

Esta modificación del permiso solicita la adición de un segundo emisario (Descarga 002) al permiso de descarga de la instalación. El emisario 002 está ubicado en la zanja de drenaje del distrito de drenaje número 7 (DD7) del condado de Jefferson al oeste de la planta de tratamiento de aguas residuales. Esta aplicación no solicita una enmienda para aumentar el flujo.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbónico (CBOD5) de cinco días, sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH3-N) y bacterias coliformes (Escherichia coli). Los contaminantes potenciales adicionales se incluyen en el Informe Técnico Doméstico 1.0, Sección 7. Análisis de Contaminantes de Efluentes Tratados y la Hoja de Trabajo Doméstica 4.0 en el paquete de solicitud de permiso. Las aguas residuales domésticas se tratan mediante clarificadores primarios, filtros percoladores, balsas de aireación, clarificadores finales, balsas de contacto con cloro, espesadores por gravedad, digestores aeróbicos y centrífugas de lodos.

### **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**



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

### **PERMIT NO. WQ0010364001**

**APPLICATION.** City of Port Arthur, P.O. Box 1089, Port Arthur, Texas 77641, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010364001 (EPA I.D. No. TX0047589) to authorize adding a second outfall, Outfall 002. The domestic wastewater treatment facility is located at 6300 Procter Street Extension, Port Arthur, in Jefferson County, Texas 77642. The discharge route is from the plant site via Outfall 001 directly to the Sabine-Neches Canal Tidal and via Outfall 002 to the Jefferson County District No. 7 drainage ditch, thence to the Sabine-Neches Canal Tidal. TCEQ received this application on April 14, 2023. The permit application will be available for viewing and copying at Port Arthur City Hall, First Floor Lobby, Security Desk, 444 4<sup>th</sup> Street, Port Arthur, 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, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.883672,29.925003&level=18

The application is subject to the goals and policies of the Texas Coastal Management Program and must be consistent with the applicable Coastal Management Program goals and policies.

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

**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 <u>www.tceq.texas.gov/goto/cid</u>. 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 <u>https://www14.tceq.texas.gov/epic/eComment/</u>, 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 <a href="http://www.tceq.texas.gov/goto/pep">www.tceq.texas.gov/goto/pep</a>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Port Arthur at the address stated above or by calling Mr. Calvin Matthews, Director of Utility Operations, at 409-983-8180.

Issuance Date: July 12, 2023

### 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. WQ0010364001

SOLICITUD. La Ciudad de Port Arthur, P.O. Box 1089, Port Arthur, Texas 77641, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0010364001 (EPA I.D. No. TX0047589) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la adición de un segundo emisario (Descarga 002). La instalación de tratamiento de aguas residuales domésticas está ubicada en 6300 Procter Street Extension, Port Arthur, en el condado de Jefferson, Texas 77642. La ruta de descarga es desde el sitio de la planta a través de la Descarga 001 directamente hasta el canal de marea Sabine-Neches y a través de la Descarga 002 hasta la zanja de drenaje No. 7 del distrito del condado de Jefferson, de allí a la marea del canal Sabine-Neches. La TCEO recibió esta solicitud el 14 de abril de 2023. La solicitud para el permiso estará disponible para leerla y copiarla en Port Arthur City Hall, primer piso, escritorio de seguridad, 444 4th Street, Port Arthur, 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 instalación se proporciona como una cortesía pública y no como parte de la solicitud o notificación. Para conocer la ubicación exacta, consulte la aplicación. 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=-93.883672,29.925003&level=18

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

**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 reconsideración de la solicitud de lo contencioso. Una audiencia administrativa de lo contencios 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. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas 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 agrega su nombre en una de las listas designe cual lista(s) y envia por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

## CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía

http://www14.tceq.texas.gov/epic/eComment/ o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. 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. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional de la Ciudad de Port Arthur a la dirección indicada arriba o llamando a Sr. Calvin Matthews, Director de Operaciones de Servicios Públicos, al 409-983-8180.

Fecha de emisión 12 de julio de 2023

**Texas Commission on Environmental Quality** 



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

### AMENDMENT

### **PERMIT NO. WQ0010364001**

**APPLICATION AND PRELIMINARY DECISION.** City of Port Arthur, P.O. Box 1089, Port Arthur, Texas 77641, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010364001 to authorize adding a second outfall, Outfall 002. The existing permit authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 9,200,000 gallons per day. TCEQ received this application on April 14, 2023.

The facility is located at 6300 Procter Street Extension, in the City of Port Arthur, Jefferson County, Texas 77642. The treated effluent is discharged via Outfall 001 direct to Sabine Neches Canal Tidal; and will be discharged via Outfall 002 to the Jefferson County District No. 7 drainage ditch, thence to Crane Bayou Main, thence through a pumping station to the Sabine Neches Canal Tidal in Segment No. 0703 of the Neches-Trinity Coastal Basin. The unclassified receiving water use is high aquatic life use for Jefferson County District No. 7 drainage ditch and Crane Bayou Main. The designated uses for Segment No. 0703 are primary contact recreation and high aquatic life use. In accordance with 30 Texas Administrative Code § 307.5 and TCEO's Procedures to Implement the Texas Surface Water Quality Standards (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the Jefferson County District No. 7 drainage ditch, and Crane Bayou Main which have been identified as having high aquatic life uses. 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=-93.883672,29.925003&level=18

The TCEQ Executive Director has reviewed this action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the Texas General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.

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 Port Arthur City Hall, First Floor Lobby, Security Desk, 444 4th Street, Port Arthur, Texas.

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

**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 <a href="http://www.tceq.texas.gov/goto/comment">www.tceq.texas.gov/goto/comment</a> 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 <u>www.tceq.texas.gov/goto/cid</u>. 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 <u>www.tceq.texas.gov/goto/comment</u>, 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 <u>www.tceq.texas.gov/goto/pep</u>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Port Arthur at the address stated above or by calling Mr. Calvin Matthews, Director of Utility Operations, at 409-983-8180.

Issuance Date: May 12, 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

### RENOVACIÓN

### PERMISO NO. WQ0010364001

**SOLICITUD Y DECISIÓN PRELIMINAR.** Ciudad de Port Arthur, Apartado Postal 1087, Port Arthur, Texas 77641 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) una renovación para autorizar WQ0010364001 autorizar la adición de un segundo emisario, el emisario 002. El permiso vigente autoriza la descarga de aguas residuales domésticas tratadas con un caudal promedio anual que no exceda los 9.200.000 galones por día. La TCEQ recibió esta solicitud el April 14, 2023.

La planta está ubicada en 6300 Extensión de Procter Street en el Condado de Jefferson Texas. El efluente tratado es descargado al Por el Desagüe 001, directo al Canal Mareomotriz Sabine Neches; y se descargará por el emisario 002 a la zanja de drenaje del Distrito n.º 7 del Condado de Jefferson, de allí a la tubería principal de Crane Bayou y, a través de una estación de bombeo, al Canal Mareomotriz Sabine Neches en el Segmento n.º 0703 de la Cuenca Costera Neches-Trinity. El uso de agua receptora no clasificada es de alto consumo de vida acuática para la zanja de drenaje del Distrito n.º 7 del Condado de Jefferson y la tubería principal de Crane Bayou. Los usos designados para el Segmento n.º 0703 son la recreación de contacto primario y el uso intensivo de vida acuática. De conformidad con el Título 30 del Código Administrativo de Texas, artículo 307.5, y los Procedimientos de la TCEO para la Implementación de los Estándares de Calidad de Aguas Superficiales de Texas (junio de 2010), se realizó una evaluación de anti degradación de las aguas receptoras. Una revisión de anti degradación de Nivel 1 ha determinado preliminarmente que los usos actuales relacionados con la calidad del agua no se verán afectados por esta medida de permiso. Se mantendrán los criterios numéricos y narrativos para proteger los usos existentes. Una revisión de Nivel 2 ha determinado preliminarmente que no se prevé una degradación significativa de la calidad del agua en la zanja de drenaje del Distrito n.º 7 del Condado de Jefferson ni en la tubería principal de Crane Bayou, que se han identificado como lugares con un alto uso para la vida acuática. Se mantendrán y protegerán los usos existentes. La determinación preliminar podrá reexaminarse y modificarse si se recibe nueva información. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no forma parte de la solicitud ni del aviso. Para conocer la ubicación exacta, consulte la solicitud. https://gisweb.tceg.texas.gov/LocationMapper/?marker=-93.883672.29.925003&level=18

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes de el CMP.

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 Ayuntamiento de Port Arthur, primer piso Vestíbulo, mostrador de seguridad, 444 4th Street, Port Arthur, Texas.

La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: <u>https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications</u>. 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.

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

**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. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso para descargar aguas residuales sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

**ACCIÓN DEL DIRECTOR EJECUTIVO.** El Director Ejecutivo puede emitir una aprobación final de la solicitud a menos que exista un pedido antes del plazo de vencimiento de una audiencia administrativa de lo contencioso o se ha presentado un pedido de reconsideración. Si un pedido ha llegado antes del plazo de vencimiento de la audiencia o el pedido de reconsideración ha sido presentado, el Director Ejecutivo no emitirá una aprobación final sobre el permiso y enviará la solicitud y el pedido a los Comisionados de la TECQ para consideración en una reunión programada de la Comisión.

**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. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas 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 agrega su nombre en una de las listas designe cual lista(s) y envia por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

**Todos los comentarios escritos del público y los pedidos una reunión deben ser presentados durante los 30 días después de la publicación del aviso a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or por el internet a <u>www.tceq.texas.gov/about/comments.html</u>. 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.** 

**CONTACTOS E INFORMACIÓN DE LA AGENCIA.** Los comentarios y solicitudes públicas deben enviarse electrónicamente a <u>https://www14.tceq.texas.gov/epic/eComment/</u>, 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 al 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 la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en 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 Ciudad de Puerto Arturo a la dirección indicada arriba o llamando a Calvin Matthews, Director de Operaciones de Servicios Públicos al (409) 983-8180.

Fecha de emission: 12 de mayo de 2025



TPDES PERMIT NO. WQ0010364001 [For TCEQ office use only - EPA I.D. No. TX0047589]

This major amendment with renewal

12, 2018.

supersedes and replaces TPDES Permit No. WO0010364001 issued on October

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

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

City of Port Arthur

whose mailing address is

P.O. Box 1089 Port Arthur, Texas 77641

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

located at 6300 Procter Street Extension, in the City of Port Arthur, Jefferson County, Texas 77642

via Outfall 001 direct to Sabine Neches Canal Tidal; and via Outfall 002 to the Jefferson County District No. 7 drainage ditch, thence to Crane Bayou Main, thence through a pumping station to the Sabine Neches Canal Tidal in Segment No. 0703 of the Neches-Trinity Coastal Basin

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

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

ISSUED DATE:

For the Commission

The annual average flow of effluent shall not exceed 9.2 million gallons per day (MGD)\*, nor shall the average discharge during any twohour period (2-hour peak) exceed 31,111 gallons per minute.

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

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 Dail Measurement Frequency	y Avg. & Daily Max. Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Biochemical Oxygen Demand (5-day)	20 (1,535)	30	45	65	Five/week	Composite
Total Suspended Solids	20 (1,535)	30	45	65	Five/week	Composite
Total Copper	0.024 (1.8)	N/A	0.051	0.072	One/week	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	35	N/A	104	N/A	Three/week	Grab

\* The combined discharge from both outfalls shall not exceed an annual average flow of 9.2 MGD.

- 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. 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 6.5 standard units nor greater than 9.0 standard units and shall be monitored five times 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 3.0 mg/l and shall be monitored five times per week by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

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### Outfall Number 001

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

### EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning upon the completion of the rehabilitation of the 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 9.2 million gallons per day (MGD)\*, nor shall the average discharge during any twohour period (2-hour peak) exceed 31,111 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 Measurement Frequency	y Avg. & Daily Max. Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous**	Totalizing Meter
Biochemical Oxygen Demand (5-day)	10 (767)	15	25	35	Five/week**	Composite
Total Suspended Solids	15 (1,151)	25	40	60	Five/week**	Composite
Ammonia Nitrogen	3 (230)	6	10	15	Five/week**	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	35	N/A	104	N/A	Three/week**	Grab

\* The combined discharge from both outfalls shall not exceed an annual average flow of 9.2 MGD.

\*\* Monitoring shall be conducted only when Outfall 002 is in use.

- 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. 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 6.5 standard units nor greater than 9.0 standard units and shall be monitored five times 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 five times per week by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

#### Outfall Number 002

### 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 24hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

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

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

### 3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and 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  $\mu$ g/L);
  - ii. Two hundred micrograms per liter (200  $\mu$ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500  $\mu$ g/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
  - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - i. Five hundred micrograms per liter (500  $\mu$ g/L);
  - ii. One milligram per liter (1 mg/L) for antimony;
  - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
  - iv. The level established by the TCEQ.
- 10. Signatories to Reports

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

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

### **PERMIT CONDITIONS**

- 1. General
  - a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
  - b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
    - i. Violation of any terms or conditions of this permit;
    - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
    - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
  - c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.
- 2. Compliance
  - a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
  - b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
  - c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
  - d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
  - e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
  - f. A permit may be amended, suspended and reissued, or revoked for cause in accordance

with 30 TAC §§ 305.62 and 305.66 and TWC § 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 7.075 (relating to Administrative Penalties), 7.101 7.111 (relating to Civil Penalties), and 7.141 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).
- 3. Inspections and Entry
  - a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.
  - b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

- 4. Permit Amendment and/or Renewal
  - a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
    - 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 upon the effective 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

Sewage sludge or biosolids shall be tested annually in accordance with the method 1. 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 10) 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 10) 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.

Pollutant	<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

#### TABLE 1

\* Dry weight basis

### 3. Pathogen Control

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

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

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

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

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

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

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

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

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

<u>Alternative 3</u> - 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)(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

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

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

### Alternative 1

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

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

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

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

i. Prior to use or disposal, all the sewage sludge must have been generated from a

single location, except as provided in paragraph v. below;

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

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

- i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
- 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.

- <u>Alternative 1</u> The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.
- <u>Alternative 2</u> 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.
- <u>Alternative 3</u> 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.
- <u>Alternative 4</u> 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.
- <u>Alternative 5</u> 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.
- <u>Alternative 6</u> 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.
- <u>Alternative 7</u> The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

- <u>Alternative 8</u> The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
- <u>Alternative 9</u> 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.
- <u>Alternative 10</u>i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
  - ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

### **C.** Monitoring Requirements

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

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

Amount of biosolids (*) metric tons per 365-day period	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

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

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

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

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

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

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

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

# A. Pollutant Limits

Table 2	
Pollutant Arsenic Cadmium Chromium Copper Lead Mercury Molybdenum Nickel Selenium Zinc	Cumulative Pollutant Loading Rate ( <u>pounds per acre</u> )* 36 35 2677 1339 268 15 Report Only 375 89 2500
Table 3	
<u>Pollutant</u> Arsenic Cadmium Chromium Copper Lead Mercury	Monthly Average Concentration ( <u>milligrams per kilogram</u> )* 41 39 1200 1500 300 17

#### **B.** Pathogen Control

Molvbdenum

Nickel

Zinc

Selenium

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.

\*Dry weight basis

Report Only

420

2800

36

# **C.** Management Practices

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

# **D. Notification Requirements**

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

# E. Record Keeping Requirements

The documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a biosolids material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a period of <u>five years</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

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

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

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

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

## F. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 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 10) 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 10) 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 10) 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 10) 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 10) 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.

- 2. The Executive Director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office (GLO) and has determined that the action is consistent with the applicable CMP goals and policies.
- 3. Chronic toxic criteria apply at the edge of the mixing zone. The mixing zone is defined as a volume within a radius of 200 feet from the point of discharge.
- 4. 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, Three/week may be reduced to One/week. A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148). The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.
- 5. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 10 within 24 hours from the time the permittee becomes aware of the violation followed by a written report within five working days to TCEQ Region 10 and the Enforcement Division (MC 224).

<u>POLLUTANT</u>	MAL (mg/l)
Total Copper	0.002

Test methods utilized shall be sensitive enough to demonstrate compliance with the permit

effluent limitations. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit with consideration given to the MAL for the parameters specified above.

When an analysis of an effluent sample for any of the parameters listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero (O) shall be used for that measurement when determining calculations and reporting requirements for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero (0) based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form.

"The reported value(s) of zero (0) for Total Copper on the self-reporting form for [monitoring period date range] is based on the following conditions: 1) the analytical method used had a method detection level as sensitive as the MAL specified in the permit, and 2) the analytical results contained no detectable levels above the specified MAL."

When an analysis of an effluent sample for a parameter indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that parameter, the level of detection achieved shall be used for that measurement when determining calculations and reporting requirements for the self-reporting form. A zero (0) may not be used.

6. The permittee shall submit quarterly progress reports on activities related to upgrading the plant to meet effluent limits and sludge provisions.

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

PROGRESS REPORT DATES

January 1 April 1 July 1 October 1

The quarterly progress reports shall include a discussion of all activities undertaken by the permittee to upgrade the facility and any operational action taken to meet permitted effluent limits and other permit provisions. These activities should include but are not limited to action to fund plant improvements, estimated dates of construction and completion, and operational actions taken to meet effluent limits during the preceding quarter.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. All reports shall be submitted to the TCEQ Regional Office (MC Region 10) and the Water Quality Compliance Monitoring Team of the Enforcement

Division (MC 224) of the TCEQ.

The permittee is required to meet all effluent limitations and condition or provisions of this permit. This provision does not restrict the TCEQ's ability to take enforcement or other corrective action based on non-compliance with the effluent limitations established in this permit or any other provision contained in this permit.

- 7. The permittee shall notify the TCEQ Regional Office (MC Region 10) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, in writing at least forty-five days prior to the completion of Outfall 002 on Notification of Completion Form 20007.
- 8. Prior to discharge from Outfall 002, 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.

# **BIOMONITORING REQUIREMENTS**

## CHRONIC BIOMONITORING REQUIREMENTS: MARINE

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

- 1. <u>Scope, Frequency and Methodology</u>
  - 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 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 below and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms," third edition (EPA-821-R-02-014) or its most recent update:
    - 1) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Americamysis bahia*) (Method 1007.0). A minimum of eight replicates with five organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.
    - 2) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*) (Method 1006.0). 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 3%, 5%, 6%, 8%, and 11% effluent. The critical dilution, defined as 8% 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 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 will resume a quarterly testing frequency for that species until this permit is reissued.
- 2. <u>Required Toxicity Testing Conditions</u>
  - a. Test Acceptance The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:
    - 1) a control mean survival of 80% or greater;
    - 2) a control mean dry weight of surviving mysid shrimp of 0.20 mg or greater;
    - 3) a control mean dry weight for surviving unpreserved inland silverside of 0.50 mg or greater and 0.43 mg or greater for surviving preserved inland silverside.
    - 4) a control coefficient of variation percent (CV%) between replicates of 40 or less in the growth and survival tests;
    - 5) a critical dilution CV% of 40 or less in the growth and survival endpoints for either growth and survival 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 37 or less for mysid shrimp growth; and
    - 7) a percent minimum significant difference of 28 or less for inland silverside growth.
  - b. Statistical Interpretation
    - 1) For the mysid shrimp and the inland silverside 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.
    - 2) 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.

- 3) 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.
- 4) 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 herein defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).
- 5) 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 2.
- 6) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), 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 Part 1.b. will be used when making a determination of test acceptability.
- 7) 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 as close to the point of discharge as possible but unaffected by the discharge.
  - 2) Where the receiving water proves unsatisfactory as a result of preexisting 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, reconstituted seawater. Upon approval, the permittee may substitute other 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 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. <u>Reporting</u>

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 mysid shrimp, Parameter TLP3E, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
  - 2) For the mysid shrimp, Parameter TOP3E, report the NOEC for survival.
  - 3) For the mysid shrimp, Parameter TXP3E, report the LOEC for survival.
  - 4) For the mysid shrimp, Parameter TWP3E, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
  - 5) For the mysid shrimp, Parameter TPP3E, report the NOEC for growth.
  - 6) For the mysid shrimp, Parameter TYP3E, report the LOEC for growth.
  - 7) For the inland silverside, Parameter TLP6J, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
  - 8) For the inland silverside, Parameter TOP6J, report the NOEC for survival.
  - 9) For the inland silverside, Parameter TXP6J, report the LOEC for survival.
  - 10) For the inland silverside, Parameter TWP6J, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
  - 11) For the inland silverside, Parameter TPP6J, report the NOEC for growth.
  - 12) For the inland silverside, Parameter TYP6J, 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 "o."

## 4. <u>Persistent Toxicity</u>

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

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE Action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.
- d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.
- e. Regardless of whether retesting for lethal or sublethal effects or a combination of the two, no more than one retest per month is required for a species.

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

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE

is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE Action Plan shall include the following:

- 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "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 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 and source of effluent toxicity;
- 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
- 5) any data which 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 herein 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 their 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 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 to 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)

# MYSID SHRIMP SURVIVAL AND GROWTH

Dates and Times	Da No. 1 FROM:	te Time	Date TO:	Time
Composites Collected	No. 2 FROM:		TO:	
	No. 3 FROM:		TO:	
Test initiated:	am/pm		date	

Dilution water used: \_\_\_\_\_ Receiving water \_\_\_\_\_ Synthetic dilution water

## MYSID SHRIMP SURVIVAL

Percent Percent Survival in Replicate Chamber							bers	Mean	Percent	CV%*		
Effluent	Α	В	C	D	E	F	G	Н	24h	48h	7 day	
0%												
3%												
5%												
6%												
8%												
11%												

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

# DATA TABLE FOR GROWTH OF MYSID SHRIMP

Derlieste	Mean dry weight in milligrams in replicate chambers										
Replicate	0%	3%	5%	6%	8%	11%					
А											
В											
С											
D											
Е											

# TABLE 1 (SHEET 2 OF 4)

### MYSID SHRIMP SURVIVAL AND GROWTH

### DATA TABLE FOR GROWTH OF MYSID SHRIMP (Continued)

Doplicate	Mean dry weight in milligrams in replicate chambers									
Replicate	0%	3%	5%	6%	8%	11%				
F										
G										
Н										
Mean Dry Weight (mg)										
CV%*										
PMSD										

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 survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (8%): \_\_\_\_\_ YES \_\_\_\_\_ NO

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

CRITICAL DILUTION (8%): \_\_\_\_\_ 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

# TABLE 1 (SHEET 3 OF 4)

# INLAND SILVERSIDE MINNOW LARVAL SURVIVAL AND GROWTH TEST

		Date	Time	Date	Time
Dates and Times Composites	No. 1	FROM:		ТО:	
Collected	No. 2	FROM:		TO:	
	No. 3	FROM:		TO:	
Test initiated:		am/pm		date	
Dilution water used:		_ Receiving water	Synt	hetic Dilutio	on water

### INLAND SILVERSIDE SURVIVAL

Percent	I	Percer Replica	nt Surv ate Cha	vival in amber	ı s	Mean Percent Survival			CV%*
Effluent	Α	В	C	D	E	24h	48h	7 days	
0%									
3%									
5%									
6%									
8%									
11%									

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

# TABLE 1 (SHEET 4 OF 4)

### INLAND SILVERSIDE LARVAL SURVIVAL AND GROWTH TEST

### INLAND SILVERSIDE GROWTH

Percent Effluent	Averag	ge Dry Weig	Mean Dry Weight	CV%*			
Linucht	Α	В	C	D	E	(mg)	0170
0%							
3%							
5%							
6%							
8%							
11%							
PMSD							

Weights are for: \_\_\_\_\_ preserved larvae, or \_\_\_\_\_ unpreserved larvae

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 survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (8%): \_\_\_\_\_ YES \_\_\_\_\_ NO

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

CRITICAL DILUTION (8%): \_\_\_\_\_ 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: MARINE

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

- 1. <u>Scope, Frequency, and Methodology</u>
  - 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 mysid shrimp (*Americamysis bahia*). 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 inland silverside (*Menidia beryllina*). 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, then repeat, an invalid test during the same reporting period. The repeat test shall include the control and all effluent dilutions 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. Except as discussed in Part 2.b., the control and dilution water shall consist of standard, synthetic, reconstituted seawater.
- d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, additional toxicity testing, and other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

#### 2. <u>Required Toxicity Testing Conditions</u>

- 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, reconstituted seawater.

- 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 on an intermittent basis.
  - 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. <u>Reporting</u>

All reports, tables, plans, summaries, and related correspondence required of 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, 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 mysid shrimp, Parameter TIE3E, 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 inland silverside, Parameter TIE6J, enter a "o" 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 "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 "1."
- 4. <u>Persistent Mortality</u>

The requirements of this part apply when a toxicity test demonstrates significant lethality, here defined as a mean mortality of 50% or greater to organisms exposed to the 100% effluent concentration after 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 additional 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 item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5 of this Section.

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

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

## City of Port Arthur

- 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 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 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

### City of Port Arthur

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, the 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 to 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)

# MYSID SHRIMP SURVIVAL

# GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

# PERCENT SURVIVAL

Time	Dop			Percent	effluent		
Time	кер	0%	6%	13%	25%	50%	100%
	А						
	В						
o th	C						
2411	D						
	Е						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = \_\_\_\_% effluent

# TABLE 2 (SHEET 2 OF 2)

# INLAND SILVERSIDE SURVIVAL

# GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

# PERCENT SURVIVAL

Time	Dop	Percent effluent											
Time	кер	0%	6%	13%	25%	50%	100%						
	А												
	В												
o.th	C												
2411	D												
	Е												
	MEAN												

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = \_\_\_\_% effluent

# CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

The permittee shall operate an industrial pretreatment program in accordance with Sections 1. 402(b)(8) and (9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved **City of Port Arthur** publicly owned treatment works (POTW) pretreatment program submitted by the permittee. The pretreatment program was approved on March 30, 1985, and modified on May 19, 1995, June 30, 2006, May 23, 2011 (Streamlining Rule nonsubstantial modification)

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

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

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

- Statement of duration (in no case more than five years); (1)
- (2)Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3)Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4)Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law: (5)
  - Statement of applicable civil and criminal penalties for violation of

pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and

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

The permittee has submitted a substantial modification to its approved pretreatment program to the TCEQ on September 21, 2022. The Executive Director is currently reviewing this substantial modification.

If after review of the substantial modification submission, the Executive Director determines that the submission does not comply with applicable requirements, including 40 CFR §§403.8 and 403.9, the Executive Director will notify the permittee. According to 40 CFR §403.11(c), the notification will include suggested revisions to bring the substantial modification submission into compliance with applicable requirements, including 40 CFR §§403.8(b) and (f) and 403.9(b). In such a case, revised information will be necessary for the Executive Director to make a determination on whether to approve or deny the permittee's substantial modification submission.

Upon approval by the Executive Director of the substantial modification to this approved POTW pretreatment program, the requirement to develop and enforce specific prohibitions and/or limits to implement the prohibitions and limits set forth in 40 CFR §§403.5(a)(1),

(b), (c)(1) and (3), and (d) is a condition of this permit. The specific prohibitions set out in 40 CFR §403.5(b) shall be enforced by the permittee unless modified under this provision.

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

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

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

In addition, each **March** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §§403.12(i) [*rev. 10/22/15*] and (m), to the TCEQ Pretreatment Team (MC148) of the Water Quality Division. The report summary shall be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218]. The report shall contain the following information as well as the information on the tables in this section:

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
  - (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code *and* categorical determination.
  - (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [*rev.* 10/14/05], then the list must also identify:

- categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR § 403.12(e)(1) [*rev. 10/22/15*] and (3);
- those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
- those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
- (3) Control mechanism status.
  - Indicate whether the IU has an effective individual or general control mechanism, and the date such control mechanism was last issued, reissued, or modified;
  - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
  - Include the type of general control mechanisms; and
  - Report all NSCIU annual evaluations performed, as applicable.
- (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
  - Total number of inspections performed; and
  - Total number of sampling events conducted.
- (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
  - Compliant (C) no violations during the pretreatment year reporting period;
  - Non-compliant (NC) one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
  - Significant Noncompliance (SNC) in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.), and the current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.

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

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

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

at the time of issuance of the permit.

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

Revised March 2022

## **TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List**

Reporting month/year: \_\_\_\_\_, \_\_\_\_ to \_\_\_\_\_, \_\_\_\_

TPDES Permit No.: Permittee: Treatment Plant:

PRE	TREATM	<b>IENT</b>	' PR(	DGRA	M S7	<b>FATUS</b>	REP	ORT	' UPI	DAT	ED	INDU	STRIA	AL US	ERS	LIST
е				CON MECH	NTRO HANIS	L SM		he CA	le CA	(	D C = 0 SNO	COM uring t Re Compli C= Sign	PLIAN he Pret porting ant, NC ificant	CE STA reatme g Perioc C = Nor Nonco	ATUS ent Yea 14 ncomp mpliar	ar liant, nce)
r Nam	Code			or NR				ed by t	l by th		RI	EPORT	S		2	
Industrial User	SIC or NAICS (	CIU <sup>2</sup>	Y/N or NR5 IND or GEN or NR Last Action <sup>6</sup> TBLLs or TBLLs only <sup>7</sup>		New User <sup>3</sup> (Y	Times Inspecte	Times Sampled	BMR	90-Day	Semi- Annual	Self- Monitoring <sup>8</sup>	NSCIU Certifications	Effluent Limits	Narrative Standards		

- Include all significant industrial users (SIUs), non-significant categorical industrial users (NSCIUs) as 1 defined in 40 CFR §403.3(v)(2), and/or middle tier categorical industrial users (MTCIUs) as defined in 40 CFR §403.12(e)(3). Please do not include non-significant noncategorical IUs that are covered under best management practices (BMPs) or general control mechanisms.
- Categorical determination (include 40 CFR citation and NSCIU or MTCIU status, if applicable). 2
- Indicate whether the IU is a new user. If the answer is No or N, then indicate the expiration date of the 3 last issued IU permit.
- The term SNC applies to a broader range of violations, such as daily maximum, long-term average, 4 instantaneous limits, and narrative standards (which may include enforceable BMPs, narrative limits and/or operational standards). Any other violation, or group of violations, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program now includes BMP violations (40 CFR §403.8(f)(2)(viii)(H)).
- Code NR= None required (NSCIUs only): IND = individual control mechanism: GEN = general control 5 mechanism. Include as a footnote (or on a separate page) the name of the general control mechanism used for similar groups of IUs, identify the similar types of operations and types of wastes that are the same for each general control mechanism. Any BMPs through general control mechanisms that are applied to nonsignificant IUs need to be reported separately, e.g. the sector type and BMP description.
- Permit or NSCIU evaluations as applicable. 6
- According to 40 CFR §403.12(i)(1), indicate whether the IU is subject to technically based local limits 7 (TBLLs) that are more stringent than categorical pretreatment standards, e.g. where there is one endof-pipe sampling point at a CIU, and you have determined that the TBLLs are more stringent than the categorical pretreatment standards for any pollutant at the end-of-pipe sampling point; **OR** the IU is subject only to local limits (TBLLs only), e.g. the IU is a non-categorical SIU subject only to TBLLs at the end-of-pipe sampling point.
- For those IUs where a monitoring waiver has been granted, please add the code "W" (after either C, 8 NC. or SNC codes) and indicate the pollutant(s) for which the waiver has been granted.

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

# TPDES Pretreatment Program Annual Report Form for Industrial User Inventory Modifications

Reporting month/year: \_\_\_\_\_, \_\_\_\_ to \_\_\_\_\_, \_\_\_\_

TPDES Permit No: \_\_\_\_\_\_ Permittee: \_\_\_\_\_ Treatment Plant: \_\_\_\_\_

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

For NSCIUs, total flow must be given, if regulated flow is not determined. 9

TCEQ-20218b TPDES Pretreatment Program Annual Report Form

Revised July 2007

## **TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken**

Reporting month/year: \_\_\_\_\_, \_\_\_\_ to \_\_\_\_\_, \_\_\_\_

 TPDES Permit No:
 Permittee:
 Treatment Plant:

Overall SNC % SNC <sup>10</sup> based on: Effluent Violations % Reporting Violations\_\_\_% Narrative Standard Violations\_\_\_%

	ľ	Nonc	ompli	ant In	dus	trial	Use	<b>rs -</b> ]	Enfe	orceme	ent A	ctio	ns T	aken	
	Nat	ure o	f Viola	tion 11	Nu	ımbe T	r of A 'aken	Action	15	d (Do arge)	Cor Sc	nplia hedu	nce ıle	turned or N)	
Industrial User Name	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	ΛΟΝ	A.O.	Civil	Criminal	Other	Penalties Collecten not Include Surch	Y or N	Date Issued	Date Due	Current Status Re to Compliance: (Y	Comments

10 <u># %</u>

Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)

\_\_\_\_\_ Reporting Requirements [WENDB-PSNC]

\_\_\_\_\_ Narrative Standards

Please specify a separate number for each type of violation, *e.g.* report, notification, 11 and/or NSCIU certification.

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

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# TPDES Pretreatment Program Annual Report Form for Influent and Effluent Monitoring Results<sup>1</sup>

Reporting month/year: \_\_\_\_\_\_, \_\_\_\_ to \_\_\_\_\_, \_\_\_\_

 TPDES Permit No.:
 Permittee:
 Treatment Plant:

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

PRETREATMENT	PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS												
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μ (Actual Concentr or < MAL)			/L ation	Average Influent % of the MAHL <sup>2</sup>	Daily Average Effluent Limit (µg/L) <sup>3</sup>	Effluent Measured in μ (Actual Concenti or < MAL)			;/L ation		
		Date	Date	Date	Date			Date	Date	Date	Date		
Cyanide, Available <sup>6</sup>													
Cyanide, Total													
Phenols, Total													
VOLATILE COMPOUNDS													
Acrolein													
Acrylonitrile													
Benzene													
Bromoform							See TTHM						
Carbon Tetrachloride													
Chlorobenzene													
Chlorodibromomethane							See TTHM						
Chloroethane													
2-Chloroethylvinyl Ether													
Chloroform							See TTHM						
Dichlorobromomethane							See TTHM						
1,1-Dichloroethane													
1,2-Dichloroethane													
1,1-Dichloroethylene													
1,2-Dichloropropane													

PRETREATMENT	PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS												
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influ easure ual Con or < 1	uent d in µg ncentra MAL)	/L ation	Average Influent % of the MAHL <sup>2</sup>	Daily Average Effluent Limit (µg/L) <sup>3</sup>	M (Act	Efflu easure ual Cou or < N	uent d in µg ncentra IAL) 4	;/L ation		
		Date Date Date Date					Date	Date	Date	Date			
1,3-Dichloropropylene													
Ethyl benzene													
Methyl Bromide													
Methyl Chloride													
Methylene Chloride													
1,1,2,2-Tetra-chloroethane													
Tetrachloroethylene													
Toluene													
1,2-Trans-Dichloroethylene													
1,1,1-Trichloroethane													
1,1,2-Trichloroethane													
Trichloroethylene													
Vinyl Chloride													
ACID COMPOUNDS	·					<u></u>			-				
2-Chlorophenol													
2,4-Dichlorophenol													
2,4-Dimethylphenol													
4,6-Dinitro-o-Cresol													
2,4-Dinitrophenol													
2-Nitrophenol													

PRETREATMENT	PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS												
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influ easure ual Cor	uent d in µg ncentra	/L ation	AverageDailyInfluentAverage% of theLimitMAHL2(u=1/2)		M (Act	Effl easure ual Cor	uent d in µg ncentra	;/L ation		
		<b>D</b> .	or <	MAL)	<b>D</b> (		(µg/L) <sup>3</sup>	<b>D</b> .	or < N	1AL) 4			
A Nituanhan al		Date Date Date Date					Date	Date	Date	Date			
4-Nitrophenoi													
P-Chloro-m-Cresol													
Pentachlorophenol													
Phenol													
2,4,6-Trichlorophenol													
BASE/NEUTRAL COMPOU	UNDS		-		<u>.</u>	-			-				
Acenaphthene													
Acenaphthylene													
Anthracene													
Benzidine													
Benzo(a)Anthracene													
Benzo(a)Pyrene													
3,4-Benzofluoranthene													
Benzo(ghi)Perylene													
Benzo(k)Fluoranthene													
Bis(2- Chloroethoxy)Methane													
Bis(2-Chloroethyl)Ether													
Bis(2-Chloroisopropyl)Ether													
Bis(2-Ethylhexyl)Phthalate													
4-Bromophenyl Phenyl Ether													

PRETREATMENT	PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS													
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influe easure ual Cou or < 1	uent d in µg ncentra MAL)	5/L ation	Average Influent % of the MAHL <sup>2</sup>	Daily Average Effluent Limit (µg/L) <sup>3</sup>	Effluent Measured in μg/L (Actual Concentration or < MAL) 4						
		Date Date Date					Date	Date	Date	Date				
Butylbenzyl Phthalate														
2-Chloronaphthalene														
4-Chlorophenyl Phenyl Ether														
Chrysene														
Dibenzo(a,h)Anthracene														
1,2-Dichlorobenzene														
1,3-Dichlorobenzene														
1,4-Dichlorobenzene														
3,3-Dichlorobenzidine														
Diethyl Phthalate														
Dimethyl Phthalate														
Di-n-Butyl Phthalate														
2,4-Dinitrotoluene														
2,6-Dinitrotoluene														
Di-n-Octyl Phthalate														
1,2-Diphenyl Hydrazine														
Fluoranthene														
Fluorene														
Hexachlorobenzene														
Hexachlorobutadiene														

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS											
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influent Measured in µ (Actual Concent or < MAL)		Influent Measured in μg/L ctual Concentration		Average Influent % of the MAHL <sup>2</sup> Daily Average Effluent Limit (ug/L) <sup>3</sup>		Effluent Measured in μg/L (Actual Concentration or < MAL) 4		
		Date	Date	Date	Date			Date	Date	Date	Date
Hexachloro- cyclopentadiene											
Hexachloroethane											
Indeno(1,2,3-cd)pyrene											
Isophorone											
Naphthalene											
Nitrobenzene											
N-Nitrosodimethylamine											
N-Nitrosodi-n-Propylamine											
N-Nitrosodiphenylamine											
Phenanthrene											
Pyrene											
1,2,4-Trichlorobenzene											
PESTICIDES				<b>b</b>				<u>.</u>			<u></u>
Aldrin											
Alpha- hexachlorocyclohexane (BHC)											
beta-BHC											
gamma-BHC (Lindane)											
delta-BHC											
Chlordane											

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS											
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influe easure ual Con or < 1	uent d in µg ncentra MAL)	/L ation	$\begin{array}{c c} Average \\ Influent \\ \% \ of the \\ MAHL^2 \end{array} \begin{array}{c} Daily \\ Average \\ Effluent \\ Limit \\ (\mu g/L)^3 \end{array}$		Effluent Measured in μg/L (Actual Concentration or < MAL) <sup>4</sup>			
		Date	Date	Date	Date			Date	Date	Date	Date
4,4-DDT											
4,4-DDE											
4,4-DDD											
Dieldrin											
alpha-Endosulfan											
beta-Endosulfan											
Endosulfan Sulfate											
Endrin											
Endrin Aldehyde											
Heptachlor											
Heptachlor Epoxide											
Polychlorinated biphenols (PCBs) The sum of PCB concentrations not to exceed daily average value.											
PCB-1242							See PCBs				
PCB-1254							See PCBs				
PCB-1221							See PCBs				
PCB-1232							See PCBs				
PCB-1248							See PCBs				
PCB-1260							See PCBs				

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS											
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)		Average Influent % of the MAHL <sup>2</sup> Daily Average Effluent Limit (µg/L) <sup>3</sup>		Effluent Measured in μg/L (Actual Concentration or < MAL) <sup>4</sup>					
		Date	Date	Date	Date			Date	Date	Date	Date
PCB-1016							See PCBs				
Toxaphene											
ADDITIONAL TOXIC PO	LLUTANTS R	EGUI	LATEI	) UNI	DER 3	o TAC CH	IAPTER 3	07			U
Aluminum											
Barium											
Bis(chloromethyl)ether 7											
Carbaryl											
Chloropyrifos											
Cresols											
2,4-D											
Danitol <sup>8</sup>											
Demeton											
Diazinon											
Dicofol											
Dioxin/Furans 9											
Diuron											
Epichlorohydrin 9											
Ethylene glycol 9											
Fluoride											
Guthion											

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS											
POLLUTANT	MAHL, if Applicable	Influent Measured in $\mu g/L$		Average Influent % of the Effluent		Effluent Measured in μg/L					
	in lb/day	(Actı	ual Con or < 1	ncentra MAL)	ation	MAHL <sup>2</sup>	Limit (µg/L) ³	(Actual Concentration or < MAL) <sup>4</sup>			
		Date	Date	Date	Date			Date	Date	Date	Date
Hexachlorophene											
4,4-Isopropylidenediphenol (bisphenol A) 9											
Malathion											
Methoxychlor											
Methyl Ethyl Ketone											
Methyl tert-butyl-ether (MTBE) 9											
Mirex											
Nitrate-Nitrogen											
N-Nitrosodiethylamine											
N-Nitroso-di-n-Butylamine											
Nonylphenol											
Parathion											
Pentachlorobenzene											
Pyridine											
1,2-Dibromoethane											
1,2,4,5-Tetrachlorobenzene											
2,4,5-TP (Silvex)											
Tributyltin 9											
2,4,5-Trichlorophenol											
TTHM (Total											

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS											
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)			Average Influent % of the MAHL <sup>2</sup>	Daily Average Effluent Limit (µg/L) <sup>3</sup>	Me (Actu	Effl easure ual Cor or < N	uent d in µg ncentra IAL) 4	J/L ation	
		Date Date Date Date				Date	Date	Date	Date		
Trihalomethanes)											

#### **Endnotes:**

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

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

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

Equation B:  $L_{\%}$  = (L<sub>INF</sub> / MAHL) x 100

Where:	
$L_{INF} =$	Current Average (Avg) influent loading in lb/day
$C_{POLL} =$	Avg concentration in $\mu$ g/L of all influent samples collected during the pretreatment year.
Q <sub>WWTP</sub> =	Annual average flow of the WWTP in MGD, defined as the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months (or during the pretreatment year), and as described in the Definitions and Standard Permit Conditions section.
L% =	% of the MAHL
MAHL =	Calculated MAHL in lb/day
8.34 =	Unit conversion factor

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

TCEQ-20218d TPDES Pretreatment Program Annual Report Form

Revised February 2020

#### FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010364001, EPA I.D. No. TX0047589, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	City of Port Arthur P.O. Box 1089 Port Arthur, Texas 77641
Prepared By:	Shaun M. Speck Municipal Permits Team Wastewater Permitting Section (MC 148) Water Quality Division (512) 239-4549
Date:	March 11, 2025

Permit Action: Major Amendment with Renewal

#### **1. EXECUTIVE DIRECTOR RECOMMENDATION**

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

# 2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of the existing permit to authorize the addition of an additional outfall, Outfall 002. The existing permit authorizes the discharge of treated domestic wastewater at an annual average volume not to exceed 9.2 million gallons per day (MGD). The existing wastewater treatment facility serves the City of Port Arthur.

#### **3.** FACILITY AND DISCHARGE LOCATION

The plant site is located at 6300 Procter Street Extension, in the City of Port Arthur, Jefferson County, Texas 77642.

**Outfall Location:** 

Outfall Number	Latitude	Longitude
001	29.922441 N	93.882775 W
002	29.924787 N	93.885709 W

The treated effluent is discharged via Outfall 001 direct to Sabine Neches Canal Tidal, and will be discharged via Outfall 002 to the Jefferson County District No. 7 drainage

ditch, thence to Crane Bayou Main, thence through a pumping station to the Sabine Neches Canal Tidal in Segment No. 0703 of the Neches-Trinity Coastal Basin. The unclassified receiving water use is high aquatic life use for Jefferson County District No. 7 drainage ditch and Crane Bayou Main. The designated uses for Segment No. 0703 are primary contact recreation and high aquatic life use.

## 4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The City of Port Arthur Main Wastewater Treatment Facility is a trickling filter system followed by an activated sludge process plant operated in the complete mix mode. Treatment units include bar screens, grit chambers, two-stage trickling filters with rock and plastic media, aeration basin, primary and secondary clarifiers, aerobic sludge digesters, sludge thickener, chlorine contact chambers and dechlorination chambers. The facility is in operation.

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, City of Port Arthur Landfill, MSW Permit No. 1815A, in Jefferson 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 receives industrial wastewater.

## 6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period January 2023 through January 2025. 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 biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), and Total Copper. The average of Daily Average value for Enterococci 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 *	6.0 *
BOD <sub>5</sub> , mg/l	20
TSS, mg/l	25
Enterococci, CFU or MPN per 100 ml	3
Total Copper, mg/l	0.0066

\*A review of the effluent monitoring data included in the application indicates that the City of Port Arthur Main WWTF has reached 75% and/or 90% of the permitted flow for three or more consecutive months. The permittee was notified via letter on March 5, 2025, that the WWTF has reached 75% of the permitted daily average flow for three or more consecutive months. The operational requirements of the existing permit specify that whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average flow for three must initiate engineering and financial planning for expansion and/or upgrading the domestic wastewater treatment and/or collection facilities. (See Operational Requirement 8a on

page 14 of the existing permit and 30 TAC § 305.126). A response was received from the applicant on March 19, 2025. The applicant's representative provided flow projections for the WWTF which showed that while the flows have reached 75 % of the permitted average daily flow, the projection does not indicate that the plant will exceed 90 % of the average daily flow capacity until the year 2034, and will not reach the permitted capacity until after the year 2040. Therefore, the applicant has submitted a request for a waiver of the 75/90 rule with the enforcement division.

# 7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

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

#### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001)

The annual average flow of effluent shall not exceed 9.2 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 31,111 gallons per minute (gpm).

<u>Parameter</u>	<u>30-Day</u>	<u>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>
$BOD_5$ TSS	20 20	1,535 1,535	30 30	45 45
Total Copper	0.024	1.8	N/A	0.051
DO (minimum)	3.0	N/A	N/A	N/A
Enterococci, CFU or MPN/100 ml	35	N/A	N/A	104

\* The combined discharge from both outfalls shall not exceed an annual average flow of 9.2 MGD.

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

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

<u>Parameter</u>	Monitoring Requirement
Flow, MGD	Continuous
BOD <sub>5</sub>	Five/week
TSS	Five/week
Total Copper	One/week
DO	Five/week

Enterococci Three/week

#### B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 002)

The annual average flow of effluent shall not exceed 9.2 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 31,111 gpm.

<u>Parameter</u>	<u>30-Da</u>	<u>ay Average</u>	<u>7-Day</u>	<u>Daily</u>
			Average	Maximum
	<u>mg/l</u>	<u>lbs/day</u>	<u>mg/l</u>	<u>mg/l</u>
$CBOD_5$	10	767	15	25
TSS	15	1,151	25	40
NH <sub>3</sub> -N	3	230	6	10
DO (minimum)	6.0	N/A	N/A	N/A
Enterococci, CFU or	35	N/A	N/A	104
MPN/100 ml				

\* The combined discharge from both outfalls shall not exceed an annual average flow of 9.2 MGD.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five times 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>	Monitoring Requirement
Flow, MGD	Continuous
CBOD <sub>5</sub>	Five/week
TSS	Five/week
NH <sub>3</sub> -N	Five/week
DO	Five/week
Enterococci	Three/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, City of Port Arthur Landfill, MSW Permit No. 1815A, in Jefferson 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 CFR Part 403, General Pretreatment Regulations for Existing and New Sources of Pollution [rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798]. The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on March 30, 1985, and modified on May 19, 1995, and June 30, 2006, and May 23, 2011 (Streamlining Rule nonsubstantial modification). This permit has appropriate pretreatment language for a facility of this size and complexity. The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of March in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

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

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

The permittee has submitted a substantial modifications package to the TCEQ on September 21, 2022, revising the existing technically based local limits (TBLLs), the legal authority, which incorporates such revisions, and includes any additional modifications to the Pretreatment Program, including the Legal Authority, an Enforcement Response Plan, and Standard Operating Procedures (including forms). The Executive Director is currently reviewing this substantial modification package. If after review of the substantial modification submission, the Executive Director determines that the submission does not comply with applicable requirements, the Executive Director will notify the permittee. According to 40 CFR §403.11(c), the notification submission into compliance with applicable requirements, including 40 CFR §403.8(b) and (f), and 40 CFR §403.9(b). In such a case, revised information will be necessary for the Executive Director to make a determination on whether to approve or deny the permittee's substantial modification submission.

Substantial modifications will be approved in accordance with 40 CFR § 403.18, and the modification will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.

## E. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

- (1) The following information applies to Outfall 001. The draft permit includes chronic saltwater 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 3%, 5%,6%, 8%, and 11%. The low-flow effluent concentration (critical dilution) is defined as 8% 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 growth test using the mysid shrimp (*Americamysis bahia*). 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 inland silverside (*Menidia beryllina*). 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 saltwater biomonitoring requirements at a frequency of once per six months.
  - (a) Acute 24-hour static toxicity test using the mysid shrimp (*Americamysis bahia*).
  - (b) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*).

#### H. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested effluent limitations for Outfall 002 (Final phase), based on a 30-day average, of 10 mg/l CBOD<sub>5</sub>, 15 mg/l TSS, 3 mg/l NH<sub>3</sub>-N, 35 CFU or MPN of Enterococci per 100 ml, and 3.0 mg/l minimum DO. However, effluent limitations in the Final phase of the draft permit for Outfall 002, based on a 30-day average, are 10 mg/l CBOD<sub>5</sub>, 15 mg/l TSS, 3 mg/l NH<sub>3</sub>-N, 35 CFU or MPN of Enterococci per 100 ml, and **6.0 mg/l minimum DO**.

I. SUMMARY OF CHANGES FROM EXISTING PERMIT

Effluent limitations for Outfall 002 have been added to the draft permit to reflect

the amendment request. More stringent effluent limitations are required in the draft permit than exist in the current permit for the Outfall 002.

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

The existing permit authorizes an annual average flow of 9.2 MGD via Outfall 001, the draft permit authorizes an annual average combined flow of 9.2 MGD via Outfall 001 and Outfall 002. Outfall 002 has not been constructed.

For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

# 8. DRAFT PERMIT RATIONALE

## A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

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

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

Texas Surface Water Quality Standards (TSWQS) at 30 TAC Chapter 307 allow for consideration of the mixing of effluent and receiving water when evaluating discharge compliance with water quality criteria for pH. The discharge authorized by this permit shall meet the TSWQS pH criterion for Segment No. 0703 of 6.5 to 9.0 standard units at the edge of the chronic mixing zone. See Attachment A of this Fact Sheet.

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

## (1) WATER QUALITY SUMMARY

The treated effluent is discharged via Outfall 001 direct to Sabine Neches Canal Tidal; and will be discharged via Outfall 002 to the Jefferson County District No. 7 drainage ditch, thence to Crane Bayou Main, thence through a pumping station to the Sabine Neches Canal Tidal in Segment No. 0703 of the Neches-Trinity Coastal Basin. The unclassified receiving water uses are high aquatic life use for Jefferson County District No. 7 drainage ditch and Crane Bayou Main. The designated uses for Segment No. 0703 are primary contact recreation and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. In accordance with 30 TAC § 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 the Jefferson County District No. 7 drainage ditch, and Crane Bayou Main which have been identified as having high aquatic life uses. 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. Though the piping plover, Charadrius melodus Ord, can occur in Jefferson County, the county is north of Copano Bay and not a watershed of high priority per Appendix A of the 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. 0703 is currently listed on the State's inventory of impaired and threatened waters (the 2022 CWA § 303(d) list). The listing is specifically for elevated bacteria levels throughout the entire water body (AU 0703\_01). This facility is designed to provide adequate disinfection and, when operated properly, should not add to the bacterial impairment of the segment. In addition, in order to ensure that the proposed discharge meets the stream bacterial standard, an effluent limitation of 35 CFU or MPN of Enterococci per 100 ml has been added to the draft permit.

The pollutant analysis of treated effluent provided by the permittee in the application indicated 440 mg/l total dissolved solids (TDS), 148 mg/l sulfate, and 68.9 mg/l chloride present in the effluent. The segment criteria for Segment No. 0701 are 1100 mg/l for TDS, 100 mg/l for sulfate, and 400 mg/l for chlorides. Based on the attached screening, no additional limits or monitoring requirements are needed for TDS, chloride, or sulfate. Regarding the primary screening for the immediate receiving water, Jefferson County District No. 7 drainage ditch, chloride and sulfate screening are not needed based on the following:

Page 174 of the Procedures to Implement the Texas Surface Water

*Quality Standards* (2010) (IPs) states that screening for TDS is usually sufficient unless the ionic ratios of chloride or sulfate are out of balance. It has been demonstrated that ionic imbalances cause WET testing failures by overwhelming the osmotic capacities of the organisms being tested. Consistent with TCEQ's EPA-approved WET testing procedures, a reasonable potential (RP) determination was made for this facility based on the last three years of WET testing data. A determination of no RP was made based on those results. Therefore, it can be concluded that the ionic ratios of dissolved solids are not skewed and are protective of aquatic life. Furthermore, consistent with our dissolved solids procedures as written in the TCEQ IPs, screening for chloride and sulfate is not required. See Attachment B of this Fact Sheet.

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

## (2) CONVENTIONAL PARAMETERS

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

The effluent limits recommended above have been reviewed for consistency with the State of Texas Water Quality Management Plan (WQMP). The proposed limits for Outfall 002 are not contained in the approved WQMP. However, these limits will be included in the next WQMP update.

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 Executive Director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office (GLO) and has determined that the action is consistent with the applicable CMP goals and policies.

## 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 and marine aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

# Outfall 001 – Sabine-Neches Canal Tidal

Acute marine criteria are applied at the edge of the zone of initial dilution (ZID), and chronic marine criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 50 feet from the point where the discharge enters Sabine-Neches Canal Tidal. The aquatic life mixing zone for this discharge is defined as a radius of 200 feet from the point where the discharge enters Sabine-Neches Canal Tidal.

TCEQ practice is to establish minimum estimated effluent percentages at the edges of the ZID and aquatic life mixing zone for discharges that are 10 MGD or less into bays, estuaries, or wide tidal rivers that are at least 400 feet wide. These critical effluent percentages are as follows:

Acute Effluent %:30%Chronic Effluent %:8%

# Outfall 002 – Jefferson County District No. 7 drainage ditch

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 Jefferson County District No. 7 ditch. 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 Jefferson County District No. 7 ditch. 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 Jefferson County District No. 7 ditch.

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 9.2 MGD and the 7-day, 2-year (7Q2) flow of 0.1 cfs for Jefferson County District No. 7 ditch. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 9.2 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %: 99.82% Chronic Effluent %: 99.30%

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-ofpipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. For Outfalls 001 and 002, using the WLA, an 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. For Outfalls 001 and 002, the lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 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 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 used for Outfall 001 are N/A mg/l for hardness (as calcium carbonate), 5,310 mg/l chlorides, 6.6 standard units for pH, and 11 mg/l for TSS. The segment values (Segment No. 0701) used for Outfall 002 are 58 mg/l for hardness (as calcium carbonate), 54 mg/l chlorides, 6.8 standard units for pH, and 11 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 C of this Fact Sheet.

## (b) PERMIT ACTION

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

The effluent limitations for Total Copper (Outfall 001) are continued from the existing permit.

#### (3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

#### (a) SCREENING

#### Sabine-Neches Canal Tidal (Outfall 001)

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of marine fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Marine fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into bays, estuaries, and wide tidal rivers. The human health mixing zone for this discharge is defined as a 400-foot radius from the point where the discharge enters Sabine-Neches Canal Tidal. TCEQ practice is to establish a minimum estimated effluent percentage at the edge of the human health mixing zone for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

#### Sabine-Neches Canal Tidal (Outfall 002)

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of marine fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Marine fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into bays, estuaries, and wide tidal rivers. The human health mixing zone for this discharge is defined as a 400-foot radius from the point where the discharge enters Sabine-Neches Canal Tidal. TCEQ uses the EPA jet plume model to estimate dilution at the edge of the human health mixing zone for discharges into sections of bays, estuaries, or wide tidal rivers that are less than 400 feet wide. General assumptions used in the horizontal jet plume model are: a non-buoyant discharge, a submersed pipe, and no cross flow. Based on this analysis, the following critical effluent percentage is calculated based on the permitted flow of 9.2 MGD:

Human Health Effluent %: 8%

#### Jefferson County District No. 7 drainage ditch (Outfall 002)

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Human health screening using incidental freshwater fish tissue criteria (= 10 X freshwater fish tissue criteria) is applicable due to the waterbody that support incidental freshwater fisheries. Freshwater fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 9.2 MGD and the harmonic mean flow of 0.2 cfs for Jefferson County District No. 7 drainage ditch. The following critical effluent percentage is being used:

Human Health Effluent %: 98.61%

(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. 0703, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

## (b) PERMIT ACTION

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 saltwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed twentyone 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 WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

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

(b) PERMIT ACTION

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

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

## (a) SCREENING

The existing permit includes 24-hour acute saltwater 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 Shaun M. Speck at (512) 239-4549.

#### 11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

#### A. PERMIT(S)

TPDES Permit No. WQ0010364001 issued on October 12, 2018.

#### B. APPLICATION

Application received on April 14, 2023, and additional information received on July 5, 2023, and March 12, 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.

#### **Attachment A: pH Screening**

	Calculation of pH of a mixture in seawa Based on the CO2SYS program (Lewis and Wa http://cdiac.esd.ornl.gov/oceans/co2rpr	ater. llace, 1998) t.html		City of Port Arthur 10364001 703
	INPUT			Notes on Data Sources
1.	MIXING ZONE BOUNDARY CHARACTERISTICS			
		12.500	12.500	Calculated from chronic effluent % at edge of mixing zone given in August 2, critical conditions memo.
	Dilution factor at mixing zone boundary			fraction $(1/0.08 = 12.5)$ .
	Depth at plume trapping level (m)	15.000	15.000	depths tested.
2.	BACKGROUND RECEIVING WATER CHARACTERISTICS			
	Temperature (deg C):	20.00	20.00	Range of temperatures tested (5 to 35 degrees C)
	pH:	6.60	6.60	0703 (2012 IPs).
	Salinity (psu):	5.00	15.00	Range of salinity tested (5 to 30 psu)
	Total alkalinity (meq/L)	2.00	10.00	Range of alkalinity tested (50 to 500 mg/L CaCO3)
3.	EFFLUENT CHARACTERISTICS			
	Temperature (deg C):	20.00	20.00	Range of temperatures tested (5 to 35 degrees C)

	OUTPUT			
4. CLICK THE 'calculate" BUTTON TO				
Total alkalinity (meq/L):				CaCO3 = 0.40  meq/L
Saimity (psu)		0.40	4.00	For high pH scenario, tested a range of values. For low pH scenarios, used default of 20 mg/L
Colinity (new)		5.00	5.00	assumed because discharge is freshwater. However, values up to 5
pH:		6.00	9.00	Proposed permit limit.

CONDITIONS AT THE MIXING ZONE BOUNDARY			
Temperature (deg C):	20.00	20.00	
Salinity (psu)	5.00	14.20	
Density (kg/m^3)	1002.08	1009.04	
Alkalinity (mmol/kg-SW):	1.87	9.43	
Total Inorganic Carbon (mmol/kg-SW):	2.43	11.67	
			Segment 0703
pH at Mixing Zone Boundary:	6.60	6.63	Criteria: 6.5 to 9.0

Notes:

To convert from units of mgCaCO3/L to meq/L divide by 50.044 mg/meq PSU refers to the Practical Salinity Scale (PSS) and is approximately equivalent to parts per thousand (ppt)

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

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

Applicant Name:	City of Port Arthur
Permit Number, Outfall:	10364-001
Segment Number:	0703 - Sabine-Neches Tidal (0701 for screening)

Enter values needed for screening:			Data Source (edit if different)
QE - Average effluent flow	9.2	MGD	
QS - Perennial stream harmonic mean flow	0.20	cfs	CC memo 2023
QE - Average effluent flow	14.2345	cfs	Calculated
CA - TDS - ambient segment concentration	246	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment			
concentration	54	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	32	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	1100	mg/L	2022 TSWQS, Appendix A
CC - chloride - segment criterion	400	mg/L	2022 TSWQS, Appendix A
CC - sulfate - segment criterion	100	mg/L	2022 TSWQS, Appendix A
CE - TDS - average effluent concentration	440	mg/L	Permit application
CE - chloride - average effluent concentration	68.88	mg/L	Permit application
CE - sulfate - average effluent concentration	148.18	mg/L	Permit application

#### **Permit Limit Calculations**

#### TDS

	WLA= [CC(QE+QS) -	1112.0	
Calculate the WLA	(QS)(CA)]/QE	0	
		1034.1	
Calculate the LTA	LTA = WLA * 0.93	6	
		1520.2	
Calculate the daily average	Daily Avg. = LTA * 1.47	1	
		3216.2	
Calculate the daily maximum	Daily Max. = LTA * 3.11	3	
		1064.1	
Calculate 70% of the daily average	70% of Daily Avg. =	5	
		1292.1	
Calculate 85% of the daily average	85% of Daily Avg. =	8	

No permit limitations needed if:	440	≤	1064.15		
					1292.1
Reporting needed if:	440	>	1064.15	but ≤	8
Permit limits may be needed if:	440	>	1292.18		

#### No permit limitations needed for TDS

#### Chloride

	WLA= [CC(Q				
Calculate the WLA	(QS)(CA)]/Q	E		404.86	
Calculate the LTA	LTA = WLA *	* 0.93		376.52	
Calculate the daily average	Daily Avg. =	LTA * 1.4	17	553.49	
				1170.9	
Calculate the daily maximum	Daily Max. =	: LTA * 3.	11	8	
Calculate 70% of the daily average	70% of Daily	/ Avg. =		387.44	
Calculate 85% of the daily average	85% of Daily	470.46			
No permit limitations needed if:	68.88	≤	387.44		
Reporting needed if:	68.88	>	387.44	but ≤	470.46
Permit limits may be needed if:	68.88	>	470.46		

#### No permit limitations needed for chloride

Sulfate					
	WLA= [CC(Q	E+QS) -			
Calculate the WLA	(QS)(CA)]/Q	E		100.96	
Calculate the LTA	LTA = WLA *	0.93		93.89	
Calculate the daily average	Daily Avg. =	LTA * 1.4	47	138.02	
Calculate the daily maximum	Daily Max. =	291.99			
Calculate 70% of the daily average	70% of Daily	Avg. =		96.61	
Calculate 85% of the daily average	85% of Daily	Avg. =		117.31	
No permit limitations needed if:	148.18	96.61			
Reporting needed if:	148.18	but ≤	117.31		
Permit limits may be needed if:	148.18				

Permit limits may be needed for sulfate

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

#### **TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER**

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

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life

Table 2, 2018 Texas Surface Water Quality Standards for Human Health

"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

#### PERMIT INFORMATION

Permittee Name:	City of Port Arthur
TPDES Permit No.:	WQ0010364001
Outfall No.:	002
Prepared by:	Shaun Speck
Date:	February 14, 2025

## DISCHARGE INFORMATION

Receiving Waterbody:	Jefferson County District No. 7 drainage ditch				
Segment No.:	0701				
TSS (mg/L):	11				
pH (Standard Units):	6.6				
Hardness (mg/L as CaCO₃):	58				
Chloride (mg/L):	54				
Effluent Flow for Aquatic Life (MGD):	9.2				
Critical Low Flow [7Q2] (cfs):	0.1				
% Effluent for Chronic Aquatic Life (Mixing					
Zone):	99.30				
% Effluent for Acute Aquatic Life (ZID):	99.82				
Effluent Flow for Human Health (MGD):	9.2				
Harmonic Mean Flow (cfs):	0.2				
% Effluent for Human Health:	98.61				
Human Health Criterion (select: PWS, FISH,					
or INC)	INC				

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

	Intercen	Slone	Partitio n Coeffici	Dissolve d Fraction		Water Effect Ratio	
Stream/River Metal	t (b)	(m)	ent (Kp)	(Cd/Ct)	Source	(WER)	Source
					Assume		Assume
Aluminum	N/A	N/A	N/A	1.00	d	1.00	d
			83134.8				Assume
Arsenic	5.68	-0.73	9	0.522		1.00	d
			264988.				Assume
Cadmium	6.60	-1.13	04	0.255		1.00	d
			356044.				Assume
Chromium (total)	6.52	-0.93	93	0.203		1.00	d
			356044.				Assume
Chromium (trivalent)	6.52	-0.93	93	0.203		1.00	d
					Assume		Assume
Chromium (hexavalent)	N/A	N/A	N/A	1.00	d	1.00	d
			177569.				Assume
Copper	6.02	-0.74	93	0.339		1.00	d
			413890.				Assume
Lead	6.45	-0.80	88	0.180		1.00	d
					Assume		Assume
Mercury	N/A	N/A	N/A	1.00	d	1.00	d

			124855.				Assume
Nickel	5.69	-0.57	07	0.421		1.00	d
					Assume		Assume
Selenium	N/A	N/A	N/A	1.00	d	1.00	d
			202939.				Assume
Silver	6.38	-1.03	01	0.309		1.00	d
			234976.				Assume
Zinc	6.10	-0.70	87	0.279		1.00	d

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

	FW	FW						
	Acute	Chronic	14/1 4	14/1 4 -	174-	174.	Daily	Daily
Parameter	(un/l)	(un/i)	wLAa (ua/l)	WLAC (ua/l)	LIA0 (ua/l)	LIAC (ua/L)	AVG. (ua/L)	(ua/I)
Aldrin	3.0	N/A	3.01	N/A	1.72	N/A	2.53	5.35
Aluminum	991	N/A	993	N/A	569	N/A	836	1769
Arsenic	340	150	652	289	374	223	327	692
Cadmium	5.1	0.168	19.8	0.664	11.4	0.511	0.751	1.59
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.57
	2.0	,	2.00	,	1110	,,,	1.00	0.0096
Chlordane	2.4	0.004	2.40	0.00403	1.38	0.00310	0.00455	4
Chlorpyrifos	0.083	0.041	0.0831	0.0413	0.0476	0.0318	0.0467	0.0988
Chromium (trivalent)	365	47	1796	235	1029	181	265	562
Chromium (hexavalent)	15.7	10.6	15.7	10.7	9.01	8.22	12.0	25.5
Copper	8.5	5.9	25.1	17.7	14.4	13.6	20.0	42.3
Cyanide (free)	45.8	10.7	45.9	10.8	26.3	8.30	12.1	25.8
						0.00077		0.0024
4,4'-DDT	1.1	0.001	1.10	0.00101	0.631	5	0.00113	1
Demeton	N/A	0.1	N/A	0.101	N/A	0.0775	0.113	0.241
Diazinon	0.17	0.17	0.170	0.171	0.0976	0.132	0.143	0.303
Dicofol [Kelthane]	59.3	19.8	59.4	19.9	34.0	15.4	22.5	47.7
Dieldrin	0.24	0.002	0 240	0 00201	0 138	0.00155	0 00227	0.0048
Diuron	210	70	210	70 5	121	54.3	79.7	168
Endosulfan I (alpha)	0.22	0.056	0.220	0.0564	0.126	0.0434	0.0638	0.135
Endosulfan II ( <i>beta</i> )	0.22	0.056	0.220	0.0564	0.126	0.0434	0.0638	0.135
Endosulfan sulfate	0.22	0.056	0.220	0.0564	0.126	0.0434	0.0638	0.135
	0.22	01000	0.220	010001	0.120	010101	0.0000	0.0048
Endrin	0.086	0.002	0.0862	0.00201	0.0494	0.00155	0.00227	2
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0101	N/A	0.00775	0.0113	0.0241
								0.0096
Heptachlor	0.52	0.004	0.521	0.00403	0.298	0.00310	0.00455	4
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.08	1.13	0.0806	0.646	0.0620	0.0911	0.192
Lead	36	1.38	198	7.74	113	5.96	8.76	18.5
Malathion	N/A	0.01	N/A	0.0101	N/A	0.00775	0.0113	0.0241
Mercury	2.4	1.3	2.40	1.31	1.38	1.01	1.48	3.13
Methoxychlor	N/A	0.03	N/A	0.0302	N/A	0.0233	0.0341	0.0723
Mirey	N/A	0.001	N/A	0.00101	N/A	0.00077	0 00113	0.0024
Nickel	295	32.8	702	78 /	///2	60.4	88.7	187
Nonvinhenol	233	52.0	28.0	6.65	16.1	5 12	7 52	15.0
Parathion (ethyl)	0.065	0.0	0.0651	0.05	0.0373	0.0101	0.0148	0.0313
Pentachlorophenol	5 g	0.013 4 5	5 85	<i>4</i> 51	2 25	3 47	1 Q2	10.0313
Phenanthrene	2.0	20	3.05	30.3	17.0	), <del>,</del> ,	75.2	10.4
Polychlorinated Binhenyls [PCBs]	20	0.01/	2 00	0 01/1	1 15	0 0100	0 0150	0 0227
Selenium	2.0	5.014	2.00	5 0/	11 5	2 88	5 60	12 0
Silver	0.8	N/A	12.0	N/A	6.9/	N/A	10.2	21 5
SIIVEI	0.8	N/A	12.1	N/A	6.94	N/A	10.2	21.5

				0.00020		0.00015	0.00022	0.0004
Toxaphene	0.78	0.0002	0.781	1	0.448	5	7	82
Tributyltin [TBT]	0.13	0.024	0.130	0.0242	0.0746	0.0186	0.0273	0.0578
2,4,5 Trichlorophenol	136	64	136	64.4	78.1	49.6	72.9	154
Zinc	74	74	265	269	152	207	223	472

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM FEELLENT LIMITA	
CALCOLATE DAILT AVENAGE AND DAILT MAANMONTET LOENT LINITA	

	Water	Fish	Incident				
	and Fish	Only	al Fish			Daily	Daily
Devenuetor	Criterion	Criterion	Criterio	WLAh (	LTAh	Avg.	Max.
Academica	(µg/L)	(µg/L)	n (μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Acrylonitrile	1.0	115	1150	0.00011	1085	0.00015	3372
Aldrin	05	1.1471-	04	6	8	0.00013	0.00033
Anthracene	1109	1317	13170	13355	12420	18257	38626
Antimony	6	1071	10710	10860	10100	14847	31411
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	5892	5479	8054	17040
Benzidine	0.0015	0.107	1.07	1.09	1.01	1.48	3.13
Benzo( <i>a</i> )anthracene	0.024	0.025	0.25	0.254	0.236	0.346	0.733
Benzo( <i>a</i> )pyrene	0.0025	0.0025	0.025	0.0254	0.0236	0.0346	0.0733
Bis(chloromethyl)ether	0.0024	0.2745	2.745	2.78	2.59	3.80	8.05
Bis(2-chloroethyl)ether	0.60	42.83	428.3	434	404	593	1256
Bis(2-ethylhexyl) phthalate [Di(2-				-			
ethylhexyl) phthalate]	6	7.55	75.5	76.6	71.2	104	221
Bromodichloromethane							
[Dichlorobromomethane]	10.2	275	2750	2789	2593	3812	8065
Bromoform [Tribromomethane]	66.9	1060	10600	10749	9997	14694	31089
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	466	434	637	1349
Chlordane	0.0025	0.0025	0.025	0.0254	0.0236	0.0346	0.0733
Chlorobenzene	100	2737	27370	27755	25812	37943	80274
Chlorodibromomethane							
[Dibromochloromethane]	7.5	183	1830	1856	1726	2536	5367
Chloroform [Trichloromethane]	70	7697	76970	78051	72588	106704	225748
Chromium (hexavalent)	62	502	5020	5091	4734	6959	14723
Chrysene	2.45	2.52	25.2	25.6	23.8	34.9	73.9
Cresols [Methylphenols]	1041	9301	93010	94317	87715	128940	272792
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.0203	0.0189	0.0277	0.0586
4,4'-DDE	0.00013	0.00013	0.0013	0.00132	0.00123	0.00180	0.00381
4,4'-DDT	0.0004	0.0004	0.004	0.00406	0.00377	0.00554	0.0117
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	4796	4461	6557	13872
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	43.0	40.0	58.7	124
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	6034	5611	8248	17450
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	33454	31112	45734	96757
<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	22.7	21.1	31.0	65.6
1,2-Dichloroethane	5	364	3640	3691	3433	5046	10675
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	558884	519762	764049	1616459
Dichloromethane [Methylene Chloride]	5	13333	133330	135203	125739	184836	391048
1,2-Dichloropropane	5	259	2590	2626	2443	3590	7596
1,3-Dichloropropene [1,3-	2						
Dichloropropylene]	2.8	119	1190	1207	1122	1649	3490

Dicofol [Kelthane]	0.30	0.30	3	3.04	2.83	4.15	8.79
				0.00020	0.00018	0.00027	0.00058
Dieldrin	2.0E-05	2.0E-05	2.0E-04	3	9	7	6
2,4-Dimethylphenol	444	8436	84360	85545	79557	116948	247422
Di-n-Butyl Phthalate	88.9	92.4	924	937	871	1280	2710
Dioxins/Eurans [TCDD Equivalents]	7 80F-08	7 97F-08	7.97E- 07	8 08F-07	7 52F-07	0.00000	0.00000
Endrin	0.02	0.02	0.2	0.203	0.189	0.277	0.586
Enichlorohydrin	53.5	2013	20130	20413	18984	27906	59040
Ethylbenzene	700	1867	18670	18932	17607	25882	54757
2017 Notifiere	,	1.68E+0	1.68E+0	1703604	1584352	2328998	4927335
Ethylene Glycol	46744	7	8	73	40	02	96
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Hentachlor	8 0F-05	0 0001	0.001	0.00101	0.00094	0 00138	0 00293
Hentachlor Enovide	0.00029	0.0001	0.001	0.00101	0 00273	0.00138	0.00255
Heyschlorobenzene	0.00023	0.00023	0.0025	0.00234	0.00273	0.00402	0.00030
Hexachlorobutadiene	0.00008	0.00008	2.2	2 23	2.07	3 04	6.45
Hexachlorocyclobexape (alpha)	0.21	0.022	0 084	0.0852	0.0792	0 116	0.45
Hexachlorocyclohexane ( <i>heta</i> )	0.0070	0.0004	2.6	2 64	2 45	3 60	7.62
Hexachlorocyclohexane (gamma) [Lindane]	0.15	0.20	3 41	3 46	3 22	4 72	10.0
Hexachlorocyclonentadiene	10.2	11.6	116	118	109	160	340
Hexachloroethane	1 84	2 33	22.3	23.6	22.0	32.3	68.3
Hexachlorophene	2.05	2.55	23.5	29.0	22.0	40.2	85.0
4 4'-Isopropylidenedinhenol	1092	15982	159820	162066	150721	221559	468742
Lead	1 15	3 83	38.3	216	201	221333	623
Mercury	0.0122	0.0122	0.122	0.124	0.115	0.169	0.357
Methoxychlor	2.92	3.0	30	30.4	28.3	41.5	87.9
metholytimet	2.52	0.0	55	0011	20.0	.1.0	0,15
		9.92E+0	9.92E+0	1005938		1375217	2909474
Methyl Ethyl Ketone	13865	9.92E+0 5	9.92E+0 6	1005938 0	9355224	1375217 8	2909474 5
Methyl Ethyl Ketone Methyl <i>tert</i> -butyl ether [MTBE]	13865 15	9.92E+0 5 10482	9.92E+0 6 104820	1005938 0 106293	9355224 98852	1375217 8 145312	2909474 5 307430
Methyl Ethyl Ketone Methyl <i>tert</i> -butyl ether [MTBE] Nickel	13865 15 332	9.92E+0 5 10482 1140	9.92E+0 6 104820 11400	1005938 0 106293 27437	9355224 98852 25516	1375217 8 145312 37509	2909474 5 307430 79355
Methyl Ethyl Ketone Methyl <i>tert</i> -butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen)	13865 15 332 10000	9.92E+0 5 10482 1140 N/A	9.92E+0 6 104820 11400 N/A	1005938 0 106293 27437 N/A	9355224 98852 25516 N/A	1375217 8 145312 37509 N/A	2909474 5 307430 79355 N/A
Methyl Ethyl Ketone Methyl <i>tert</i> -butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene	13865 15 332 10000 45.7	9.92E+0 5 10482 1140 N/A 1873	9.92E+0 6 104820 11400 N/A 18730	1005938 0 106293 27437 N/A 18993	9355224 98852 25516 N/A 17664	1375217 8 145312 37509 N/A 25965	2909474 5 307430 79355 N/A 54933
Methyl Ethyl Ketone Methyl tert-butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene N-Nitrosodiethylamine	13865 15 332 10000 45.7 0.0037	9.92E+0 5 10482 1140 N/A 1873 2.1	9.92E+0 6 104820 11400 N/A 18730 21	1005938 0 106293 27437 N/A 18993 21.3	9355224 98852 25516 N/A 17664 19.8	1375217 8 145312 37509 N/A 25965 29.1	2909474 5 307430 79355 N/A 54933 61.5
Methyl Ethyl Ketone Methyl tert-butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene N-Nitrosodiethylamine N-Nitroso-di-n-Butylamine	13865 15 332 10000 45.7 0.0037 0.119	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2	9.92E+0 6 104820 11400 N/A 18730 21 42	1005938 0 106293 27437 N/A 18993 21.3 42.6	9355224 98852 25516 N/A 17664 19.8 39.6	1375217 8 145312 37509 N/A 25965 29.1 58.2	2909474 5 307430 79355 N/A 54933 61.5 123
Methyl Ethyl Ketone Methyl tert-butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene N-Nitrosodiethylamine N-Nitroso-di-n-Butylamine Pentachlorobenzene	13865 15 332 10000 45.7 0.0037 0.119 0.348	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60	9355224 98852 25516 N/A 17664 19.8 39.6 3.35	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92	2909474 5 307430 79355 N/A 54933 61.5 123 10.4
Methyl Ethyl Ketone Methyl tert-butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene N-Nitrosodiethylamine N-Nitroso-di-n-Butylamine Pentachlorobenzene Pentachlorophenol	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50
Methyl Ethyl Ketone Methyl tert-butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene N-Nitrosodiethylamine N-Nitroso-di- <i>n</i> -Butylamine Pentachlorobenzene Pentachlorophenol	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 22	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50
Methyl Ethyl Ketone Methyl tert-butyl ether [MTBE] Nickel Nitrate-Nitrogen (as Total Nitrogen) Nitrobenzene N-Nitrosodiethylamine N-Nitroso-di-n-Butylamine Pentachlorobenzene Pentachlorophenol Polychlorinated Biphenyls [PCBs] Duriding	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13232	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Pentachlorophenol         Polychlorinated Biphenyls [PCBs]         Pyridine	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Pentachlorophenol         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1 2 4 5 Totropheropheropen	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.22	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.02
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 265	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 722
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 2.4 263.5	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 2.43 2.67	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3001	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.23	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 267 2839	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 2.18	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenol         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 267 2.839 2.33	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorophenol         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 267 2839 2.33 N/A 0.112	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.222
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         Toxaphene         2,4,5 TD [Silvey]	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000 0.011	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.011 260	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 0.11	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 267 2839 2.33 N/A 0.112	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 F145	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Pentachlorophenol         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         Toxaphene         2,4,5-TP [Silvex]	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 50 0.23 1.64 50 0.12 1000 0.011	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.011 369	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 0.11 3690	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 267 2839 2.33 N/A 0.112 3742	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104 3480	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 5115 1087356	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322 10822 2300461
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         Toxaphene         2,4,5-TP [Silvex]         1,1,1-Trichloroethane	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000 0.011 50	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.011 369 784354	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 0.11 3690 7843540	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 0.00649 9603 N/A 2.43 267 2839 2.33 N/A 0.112 3742	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104 3480 7396983	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 5115 1087356 4	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322 10822 10822 2300461 7
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         Toxaphene         2,4,5-TP [Silvex]         1,1,2-Trichloroethane         1,1,2-Trichloroethane	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000 0.011 50 200 5	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.011 369 784354 166	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 0.11 3690 7843540 1660	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 0.00649 9603 N/A 2.43 267 2839 2.33 N/A 0.112 3742 7953745 1683	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104 3480 7396983 1565	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 5115 1087356 4 2301	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322 10822 2300461 7 4868
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrate-Nitrogen (as Total Nitrogen)         Nitrobenzene         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         Toxaphene         2,4,5-TP [Silvex]         1,1,2-Trichloroethane         1,1,2-Trichloroethane         Trichloroethylene [Trichloroethene]	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000 0.011 50 200 5 5	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.011 369 784354 166 71.9	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 2.4 263.5 2800 2.3 N/A 0.11 3690 7843540 1660 719	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 2.67 2.839 2.33 N/A 0.112 3.742 7953745 1683 729	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104 3480 7396983 1565 678	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 5115 1087356 4 2301 996	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322 10822 2300461 7 4868 2108
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Polychlorinated Biphenyls [PCBs]         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         Toxaphene         2,4,5-TP [Silvex]         1,1,2-Trichloroethane         1,1,2-Trichloroethane         Trichloroethylene [Trichloroethene]         2,4,5-Tretrachloroethane	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000 0.011 50 200 5 5 5 1039	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.24 26.35 280 0.23 N/A 0.011 369 784354 166 71.9 1867	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 2.4 263.5 2800 2.3 N/A 0.11 3690 7843540 1660 719 18670	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 2.67 2839 2.33 N/A 0.112 3742 7953745 1683 729 18932	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104 3480 7396983 1565 678 17607	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 5115 1087356 4 2301 996 25882	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322 10822 2300461 7 4868 2108 54757
Methyl Ethyl Ketone         Methyl tert-butyl ether [MTBE]         Nickel         Nitrobenzene         N-Nitrosodiethylamine         N-Nitroso-di-n-Butylamine         Pentachlorobenzene         Pentachlorobenzene         Pentachlorobenzene         Pyridine         Selenium         1,2,4,5-Tetrachlorobenzene         1,1,2,2-Tetrachloroethane         Tetrachloroethylene [Tetrachloroethylene]         Thallium         Toluene         1,2,4,5-TP [Silvex]         1,1,1-Trichloroethane         1,1,2-Trichloroethane         Trichloroethylene [Trichloroethene]         2,4,5-Trichlorophenol	13865 15 332 10000 45.7 0.0037 0.119 0.348 0.22 6.4E-04 23 50 0.23 1.64 5 0.12 1000 0.011 50 2000 5 5 5 5 1039 80	9.92E+0 5 10482 1140 N/A 1873 2.1 4.2 0.355 0.29 6.4E-04 947 N/A 0.24 26.35 280 0.23 N/A 0.011 369 784354 166 71.9 1867 N/A	9.92E+0 6 104820 11400 N/A 18730 21 42 3.55 2.9 6.40E- 03 9470 N/A 2.4 263.5 2800 2.3 N/A 0.11 3690 7843540 1660 719 18670 N/A	1005938 0 106293 27437 N/A 18993 21.3 42.6 3.60 2.94 0.00649 9603 N/A 2.43 267 2839 2.33 N/A 0.112 3742 7953745 1683 729 18932 N/A	9355224 98852 25516 N/A 17664 19.8 39.6 3.35 2.73 0.00604 8931 N/A 2.26 248 2641 2.17 N/A 0.104 3480 7396983 1565 678 17607 N/A	1375217 8 145312 37509 N/A 25965 29.1 58.2 4.92 4.02 0.00887 13128 N/A 3.32 365 3881 3.18 N/A 0.152 5115 1087356 4 2301 996 25882 N/A	2909474 5 307430 79355 N/A 54933 61.5 123 10.4 8.50 0.0187 27774 N/A 7.03 772 8212 6.74 N/A 0.322 10822 2300461 7 4868 2108 24757 N/A

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

Aquatic Life	70% of Daily Ava.	85% of Daily Ava.
Parameter	(ua/L)	(ua/L)
Aldrin	1.77	2.15
Aluminum	585	710
Arsenic	229	278
Cadmium	0 526	0.638
Carbaryl	1 18	1 43
Chlordane	0.00319	0.00387
Chlorovrifos	0.00313	0.00007
Chromium (trivalent)	196	225
Chromium (hovavalent)	0.45	10.2
	0.45	17.0
	14.0	17.0
Cyanide (free)	0.0070	10.3
4 4'-DDT	0.00079	0.00090
Demeton	0.0797	0.0968
Diazinon	0.100	0.121
Dicofol [Kelthane]	15.7	19.1
Dieldrin	0.00159	0.00193
Diuron	55.8	67.8
Endosulfan I (alnha)	0.0446	0.0542
Endosulfan II ( <i>lapid</i> )	0.0440	0.0542
Endosulfan sulfato	0.0440	0.0542
	0.0446	0.0542
	0.00159	0.00193
Gutnion [Azinphos Methyl]	0.00797	0.00968
	0.00319	0.00387
Hexachlorocyclohexane (gamma) [Lindane]	0.0638	0.0775
Lead	6.13	7.44
Malathion	0.00797	0.00968
Mercury	1.03	1.25
Methoxychlor	0.0239	0.0290
Miroy	0.00079	0.00096
Nickol	62.1	75 /
Newdebenel	DZ.1	75.4
Nonyiphenoi	0.0102	0.39
	0.0103	0.0125
Pentachiorophenol	3.44	4.18
Principal Princi	1/./	21.5
Polychiorinated Bipnenyls [PCBs]	0.0111	0.0135
Selenium	3.98	4.84
Sliver	7.14	8.67
Toxanhene	0.00012	5 0.00013
Tributyltin [TBT]	0 0101	0 0252
2.4.5 Trichlorophenol	51.0	62.02.32
Zinc	156	120
	061	109
	70% of	85% of
	Daily	Daily
Human Health	Avg.	Avg.
Parameter	(µg/L)	(µg/L)
Acrylonitrile	1115	1355

	0.00011	0.00013
Aldrin	1	5
Anthracene	12780	15519
Antimony	10393	12620
Arsenic	N/A	N/A
Banam	N/A	N/A
Benzelle	2038	1 20
Benzidine	1.03	1.26
Benzo(a)anthracene	0.242	0.294
Belizo(d)pyrelle	0.0242	0.0294
Bis(Chioromethyl)ether	2.66	3.23
Bis(2-ethylbeyd) phthalate [Di(2-	415	504
ethylhexyl) phthalate]	73.2	88.9
Bromodichloromethane		
[Dichlorobromomethane]	2668	3240
Bromoform [Tribromomethane]	10286	12490
Cadmium	N/A	N/A
Carbon Tetrachloride	446	542
Chlordane	0.0242	0.0294
Chlorobenzene	26560	32251
Chlorodibromomethane		
[Dibromochloromethane]	1775	2156
Chloroform [Trichloromethane]	74692	90698
Chromium (hexavalent)	4871	5915
Chrysene	24.4	29.6
Cresols [Methylphenols]	90258	109599
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0194	0.0235
4,4'-DDE	0.00126	0.00153
4,4'-DDT	0.00388	0.00471
2,4'-D	N/A	N/A
Danitoi [Fenpropatnrin]	4590	5573
1,2-Dibromoetnane [Ethylene Dibromide]	41.1	49.9
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	22014	20074
O-Dichlorobenzene [1,2-Dichlorobenzene]	32014	38874
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3 -Dichlorobenzidine	21.7	20.3
1,2-Dichloroethane	524024	4289
1,1-Dichloroethylene [1,1-Dichloroethene]	120205	649442
	129385	2051
1,2-Dichloropropane	2513	3051
Dichloropropylene	1154	1402
Dicofol [Kelthane]	2.91	3.53
	0.00019	0.00023
Dieldrin	4	5
2,4-Dimethylphenol	81864	99406
Di-n-Butyl Phthalate	896	1088
Dioxins/Furans [TCDD Equivalents]	7.73E-07	9.39E-07
Endrin	0.194	0.235
Epichlorohydrin	19534	23720
Ethylbenzene	18117	22000
Ethylong Church	1630298	1979648
	61	32
Fluoride	N/A	N/A

	0.00097	
Heptachlor	0	0.00117
Heptachlor Epoxide	0.00281	0.00341
Hexachlorobenzene	0.00659	0.00801
Hexachlorobutadiene	2.13	2.59
Hexachlorocyclohexane (alpha)	0.0815	0.0989
Hexachlorocyclohexane (beta)	2.52	3.06
Hexachlorocyclohexane (gamma) [Lindane]	3.30	4.01
Hexachlorocyclopentadiene	112	136
Hexachloroethane	22.6	27.4
Hexachlorophene	28.1	34.1
4,4'-Isopropylidenediphenol	155091	188325
Lead	206	250
Mercury	0.118	0.143
Methoxychlor	29.1	35.3
		1168935
Methyl Ethyl Ketone	9626525	2
Methyl tert-butyl ether [MTBE]	101718	123515
Nickel	26256	31882
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	18175	22070
N-Nitrosodiethylamine	20.3	24.7
N-Nitroso-di-n-Butylamine	40.7	49.4
Pentachlorobenzene	3.44	4.18
Pentachlorophenol	2.81	3.41
Polychlorinated Biphenyls [PCBs]	0.00621	0.00754
Pyridine	9189	11159
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.32	2.82
1,1,2,2-Tetrachloroethane	255	310
Tetrachloroethylene [Tetrachloroethylene]	2717	3299
Thallium	2.23	2.71
Toluene	N/A	N/A
Toxaphene	0.106	0.129
2,4,5-TP [Silvex]	3580	4348
1,1,1-Trichloroethane	7611495	9242530
1,1,2-Trichloroethane	1610	1956
Trichloroethylene [Trichloroethene]	697	847
2,4,5-Trichlorophenol	18117	22000
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	160	194

#### **TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER**

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

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Saltwater 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: TPDES Permit No: Outfall No: Prepared by: Date:

City of Port Arthur
WQ0010364001
001
Shaun Speck
February 14, 2025

#### DISCHARGE INFORMATION

Receiving Waterbody:	Sabine-Neo	ches Canal Tidal
Segment No:	0703	
TSS (mg/L):	11	
Effluent Flow for Aquatic Life (MGD)	9.2	
% Effluent for Chronic Aquatic Life (Mixing		
Zone):	8	
% Effluent for Acute Aquatic Life (ZID):	30	
Oyster Waters?	No	
Effluent Flow for Human Health (MGD):	9.2	
% Effluent for Human Health:	4	

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

i			Partition	Dissolve d		Water Effect	
Estuarine Metal	Intercept (h)	Slope (m)	Coefficie nt (Kn)	Fraction (Cd/Ct)	Source	Ratio (WFR)	Source
Lituarine metal	(2)	(111)	<i>int (np)</i>	(64) 61)	500,00	1.0	Assum
Aluminum	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Arsenic	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Cadmium	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	0	ed
			12594.9			1.0	Assum
Copper	4.85	-0.72	7	0.878		0	ed
			149560.			1.0	Assum
Lead	6.06	-0.85	26	0.378		0	ed
						1.0	Assum
Mercury	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Nickel	N/A	N/A	N/A	1.00	Assumed	0	ed
						1.0	Assum
Selenium	N/A	N/A	N/A	1.00	Assumed	0	ed
			122848.			1.0	Assum
Silver	5.86	-0.74	37	0.425		0	ed
			65837.8			1.0	Assum
Zinc	5.36	-0.52	7	0.580		0	ed

#### AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

	SW	SW						
	Acute	Chronic					Daily	Daily
	Criterion	Criterion	WLAa	WLAc	LTAa	LTAC	Avg.	Max.
Parameter	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Acrolein	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	1.3	N/A	4.33	N/A	1.39	N/A	2.03	4.31
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	497	975	159	595	233	494
Cadmium	40.0	8.75	133	109	42.7	66.7	62.7	132
Carbaryl	613	N/A	2043	N/A	654	N/A	961	2033
Chlordane	0.09	0.004	0 300	0.0500	0 0960	0.030	0.0448	0.094
Chlordane	0.05	0.004	0.500	0.0500	0.0500	0.045	0.0440	0.036
Chlorpyrifos	0.011	0.006	0.0367	0.0750	0.0117	8	0.0172	4
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	3633	620	1163	378	555	1176
Copper	13.5	3.6	51.2	51.2	16.4	31.3	24.1	50.9
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cvanide (free)	5.6	5.6	18.7	70.0	5.97	42.7	8.78	18.5
			-			0.007		0.023
4,4'-DDT	0.13	0.001	0.433	0.0125	0.139	63	0.0112	7
Demeton	N/A	0.1	N/A	1.25	N/A	0.763	1.12	2.37
Diazinon	0.819	0.819	2.73	10.2	0.874	6.24	1.28	2.71
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
						0.015		0.047
Dieldrin	0.71	0.002	2.37	0.0250	0.757	3	0.0224	4
Diuron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endoculton L (alaba)	0.024	0.000	0 1 1 2	0 1 1 2	0.0262	0.068	0.0522	0 1 1 2
	0.054	0.009	0.115	0.115	0.0505	0 068	0.0555	0.112
Endosulfan II ( <i>beta</i> )	0.034	0.009	0.113	0.113	0.0363	6.000	0.0533	0.112
						0.068		
Endosulfan sulfate	0.034	0.009	0.113	0.113	0.0363	6	0.0533	0.112
						0.015		0.047
Endrin	0.037	0.002	0.123	0.0250	0.0395	3	0.0224	4
Guthion [Azinnhos Methyl]	N/A	0.01	N/A	0 125	N/A	0.076	0 112	0 237
	ΝА	0.01	Ny A	0.125	ΝА	0.030	0.112	0.094
Heptachlor	0.053	0.004	0.177	0.0500	0.0565	5	0.0448	8
Hexachlorocyclohexane (gamma) [Lindane]	0.16	N/A	0.533	N/A	0.171	N/A	0.250	0.530
Lead	133	5.3	1173	175	375	107	157	332
						0.076		
Malathion	N/A	0.01	N/A	0.125	N/A	3	0.112	0.237
Mercury	2.1	1.1	7.00	13.8	2.24	8.39	3.29	6.96
Methoxychlor	N/A	0.03	N/A	0.375	N/A	0.229	0.336	0.711
N disease	NI / A	0.001	NI / A	0.0125	NI / A	0.007	0.0112	0.023
Niles	N/A	0.001	N/A	0.0125	N/A	63	0.0112	/
	118	13.1	393	164	126	99.9	146	310
Nonyiphenoi	/	1./	23.3	21.3	7.47	13.0	10.9	23.2
Paratnion (etnyi)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	50.3	120	16.1	/3.2	23.6	50.0
Phenanthrene	1.1	4.6	25.7	57.5	8.21	35.1	12.0	25.5
Polychlorinated Biphenyls [PCBs]	10	0.03	33.3	0.375	10.7	0.229	0.336	0.711
Selenium	564	136	1880	1700	602	1037	884	1870
Silver	2	N/A	15.7	N/A	5.02	N/A	7.37	15.6
Toxaphene	0.21	0 0002	0 700	0 00250	0 22/	0.001	0.0022 ⊿	0.004 74
Тохарнене	0.21	0.0002	0.700	0.00230	0.224	0.056		/4
Tributyltin [TBT]	0.24	0.0074	0.800	0.0925	0.256	4	0.0829	0.175

2,4,5 Trichlorophenol	259	12	863	150	276	91.5	134	284
Zinc	92.7	84.2	533	1815	170	1107	250	530

#### HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	Fish Only Criterion	WLAh	LTAh	Daily Avg.	Daily Max.
Acadonitrilo	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Acrylonithie	1.147F-	0.00028	0.00026	0.00039	8312
Aldrin	05	7	7	2	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benzidine	0.107	2.68	2.49	3.65	7.73
Benzo(a)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo( <i>a</i> )pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8
Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)					
phthalate]	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane					
[Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
o-Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin		0.00050	0.00046 E	0.00068 2	0.00144
2 4-Dimethylphenol	2.01-03	210000	196137	288321	6000244
	0450	210900	120121	200321	009900

Di-n-Butyl Phthalate	92.4	2310	2148	3158	6681
		0.00000	0.00000	0.00000	0.000005
	7.97E-08	20	19	27	8
	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
Ethylene Glycol	1.68E+07	4200000 00	3906000	5741820 00	12147660 00
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (alpha)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (beta)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (gamma) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	253	236	346	732
Mercury	0.0250	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
		2480000	2306400	3390408	
Methyl Ethyl Ketone	9.92E+05	0	0	0	71729040
Methyl tert-butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di-n-Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2.4.5-TP [Silvex]	369	9225	8579	12611	26681
		1960885	1823623	2680725	
1,1,1-Trichloroethane	784354	0	1	8	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

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

	70% of	85% of
	Daily	Daily
Aquatic Life	Avg.	Avg.
Parameter	(µg/L)	(µg/L)
Acrolein	N/A	N/A
Aldrin	1.42	1.73
Aluminum	N/A	N/A
Arsenic	163	198
Cadmium	43.9	53.3
Carbaryl	672	817
Chlordane	0.0313	0.0381
Chlorpyrifos	0.0120	0.0146
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	389	472
Copper	16.8	20.4
Copper (oyster waters)	N/A	N/A
Cyanide (free)	6.14	7.46
4,4'-DDT	0.00784	0.00952
Demeton	0.784	0.952
Diazinon	0.898	1.09
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0156	0.0190
Diuron	N/A	N/A
Endosulfan I (alpha)	0.0373	0.0453
Endosulfan II ( <i>beta</i> )	0.0373	0.0453
Endosulfan sulfate	0.0373	0.0453
Endrin	0.0156	0.0190
Guthion [Azinnhos Methyl]	0.0784	0.0952
Hentachlor	0.0313	0.0381
Hexachlorocyclohexane ( <i>agmma</i> ) [Lindane]	0 175	0 213
Lead	109	133
Malathion	0 0784	0.0952
Marcuny	2 30	2 79
Methoxychlor	0 235	0.285
Mirey	0.233	0.203
Nickel	102	12/
Nonvinhenol	7.68	0.32
Parathian (athyl)	7.00 N/A	5.52 N/A
Parachion (entri)	16.5	20.1
Plananthrono	2 / 5	10.2
Polychlorinated Pinhonyle [PCPs]	0.45	0.205
	610	0.265
Silver	<u>с 16</u>	6.26
	5.10	0.20
	0.00156	0.00190
	0.0580	0.0705
	94.1	114
ZINC	175	213
	70% -4	0E0/ -f
	Dailv	Dailv
Human Health	Avq.	Avq.
Parameter	(μg/L)	(μg/L)
Acrylonitrile	2751	3340
· ·	0.00027	0.00033
Aldrin	4	3
Anthracene	31508	38260

Antimony	25622	31113
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	13899	16878
Benzidine	2.55	3.10
Benzo( <i>a</i> )anthracene	0.598	0.726
Benzo( <i>a</i> )pyrene	0.0598	0.0726
Bis(chloromethyl)ether	6.56	7.97
Bis(2-chloroethyl)ether	1024	1244
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)		
phthalate]	180	219
Bromodichloromethane	6570	7000
[Dichlorobromomethane]	6579	7988
	25359	30793
	N/A	N/A
Carbon Tetrachloride	1100	1336
Chlordane	0.0598	0.0726
Chlorobenzene	65480	79512
Chlorodibromomethane	4270	F216
[Dibromocnioromethane]	43/8	222604
Chieronic (have a least)	184144	223604
Chromium (nexavalent)	12009	14583
Chrysene	60.2	/3.2
	222519	270202
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0478	0.0581
4,4'-DDE	0.00311	0.00377
4,4'-DDT	0.00956	0.0116
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	11316	13741
1,2-Dibromoethane [Ethylene Dibromide]	101	123
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285
o-Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	53.5	65.0
1,2-Dichloroethane	8708	10574
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109
Dichloromethane [Methylene Chloride]	318982	387335
1,2-Dichloropropane	6196	7524
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457
Dicofol [Kelthane]	7.17	8.71
	0.00047	0.00058
Dieldrin	8	1
2,4-Dimethylphenol	201824	245073
Di-n-Butyl Phthalate	2210	2684
Diaving (Europe [TCDD Equivalente]	0.00000	0.00000
	19	23
Enuliii	0.478	0.581
	48159	58479
Ethylbenzene	44666	54237
Ethylene Glycol	4019274 00	4000047 00
Fluoride	N/A	N/A
Heptachlor	0.00239	0.00290
Hentachlor Enoxide	0.00233	0.00230
Heyachlorobenzene	0.0162	0.00042
HEAGUIIUI UDEIIZEITE	0.0102	0.0197

Hexachlorobutadiene	5.26	6.39
Hexachlorocyclohexane (alpha)	0.200	0.244
Hexachlorocyclohexane (beta)	6.22	7.55
Hexachlorocyclohexane (gamma) [Lindane]	8.15	9.90
Hexachlorocyclopentadiene	277	336
Hexachloroethane	55.7	67.6
Hexachlorophene	69.3	84.2
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291
Lead	242	294
Mercury	0.598	0.726
Methoxychlor	71.7	87.1
	2373285	2881846
Methyl Ethyl Ketone	6	8
Methyl tert-butyl ether [MTBE]	250773	304511
Nickel	27273	33117
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	44810	54412
N-Nitrosodiethylamine	50.2	61.0
N-Nitroso-di-n-Butylamine	100	122
Pentachlorobenzene	8.49	10.3
Pentachlorophenol	6.93	8.42
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185
Pyridine	22656	27511
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	5.74	6.97
1,1,2,2-Tetrachloroethane	630	765
Tetrachloroethylene [Tetrachloroethylene]	6698	8134
Thallium	5.50	6.68
Toluene	N/A	N/A
Toxaphene	0.263	0.319
2,4,5-TP [Silvex]	8828	10719
	1876508	2278617
1,1,1-Trichloroethane	1	0
1,1,2-Trichloroethane	3971	4822
Trichloroethylene [Trichloroethene]	1720	2088
2,4,5-Trichlorophenol	44666	54237
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	394	479

#### **TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER**

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

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Saltwater Aquatic Life Table 2, 2018 Texas Surface Water Quality Standards for Human Health "Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION	
Permittee Name:	City of Port Arthur
TPDES Permit No:	WQ0010364001
Outfall No:	002
Prepared by:	Shaun Speck
Date:	February 14, 2025

#### DISCHARGE INFORMATION

Receiving Waterbody:	Sabine-Necl	nes Canal Tidal
Segment No:	0703	
TSS (mg/L):	11	
Oyster Waters?	No	
Effluent Flow for Human Health (MGD):	9.2	
% Effluent for Human Health:	8	

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

Estuarine Metal	Intercept (b)	Slope (m)	Partition Coefficie nt (Kp)	Dissolved Fraction (Cd/Ct)	Source	Wate r Effect Ratio (WER )	Source
						1.0	Assume
Aluminum	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Arsenic	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Cadmium	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Copper	4.85	-0.72	12594.97	0.878		0	d
			149560.2			1.0	Assume
Lead	6.06	-0.85	6	0.378		0	d
						1.0	Assume
Mercury	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Nickel	N/A	N/A	N/A	1.00	Assumed	0	d
						1.0	Assume
Selenium	N/A	N/A	N/A	1.00	Assumed	0	d
			122848.3			1.0	Assume
Silver	5.86	-0.74	7	0.425		0	d
						1.0	Assume
Zinc	5.36	-0.52	65837.87	0.580		0	d

#### HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Acrylonitrile         115         1438         1337         1965         415           Aldrin         1.147E-05         0.000143         0.000133         0.000196         0.00044           Anthracene         1317         16663         15310         22505         4761           Antimony         1071         13388         12450         18302         3872           Arsenic         N/A         N/A         N/A         N/A         N/A         N/A           Berizidine         0.107         1.34         1.24         1.82         3.8           Benzo(a)arbracene         0.025         0.313         0.291         0.427         0.090           Benzo(a)arbracene         0.025         0.0313         0.0291         0.0427         0.090           Bis(2-chloroethyl)ether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-chloroethyl)ether         1232         12323         18114         832           Cadmium         N/A         N/A         N/A         N/A           Dichlorobromethane         275         3438         3197
Aldrin         1.147E-05         0.000143         0.000133         0.000196         0.00041           Antimony         1071         13388         12450         18302         3872           Arsenic         N/A         S3
Anthracene         1317         16463         15310         22505         4761           Antimony         1071         13388         12450         18302         3872           Arsenic         N/A         N/A         N/A         N/A         N/A         N/A           Barium         N/A         N/A         N/A         N/A         N/A         N/A           Benzelojanthracene         0.025         0.313         0.0291         0.427         0.90           Benzo(ojanthracene         0.025         0.313         0.0291         0.427         0.90           Benzo(ojanthracene         0.025         0.313         0.0291         0.427         0.90           Bis(2-chloromethyllether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloromethyllether         42.83         535         498         731         154           Bis(2-chloromethyllether         175         94.4         87.8         129         27           Bromodichloromethane         [Dichlorobromomethane]         75         3438         3197         4699         944           Bromoform [Tribromomethane]         1060         13250         12333         18114         3832
Antimony         1071         13388         12450         18302         3872           Arsenic         N/A         Sigaditional and anticipant anticipa
Arsenic         N/A           Barizim         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A           Benzeline         0.107         1.34         1.24         1.82         3.8           Benzo(a)anthracene         0.025         0.313         0.291         0.427         0.90           Bis(2-chloroethyl)ether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Dichloromethane         7.55         94.4         87.8         129         27           Bromoform [Tribromomethane]         755         94.4         87.8         129         994           Bromoform Trichoromethane]         1060         13250         12323         18114         3832           Carbon Tetrachloride         46         575         557         786         166           Chlorodibromomethane         100291 <t< td=""></t<>
Barium         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A           Benzene         S81         7263         6754         9928         2100           Benzo(a)phtracene         0.025         0.313         0.0291         0.427         0.90           Benzo(a)pyrene         0.025         0.0313         0.0291         0.427         0.90           Bis(2-chloroethyl)ether         4.23         535         498         731         154           Bis(2-chloroethyl)ether         4.23         535         498         731         154           Bis(2-chloroomethale(Di/(2-ethylhexyl))         phthalate         7.55         94.4         87.8         129         27           Bromodichloromethane         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Cardmon         N/A         N/A         N/A         N/A         N/A         N/A           Chlorobenzene         2737         34213         31818         46771         9895           Chlorobormethane         1         13522         27827         157
Benzene         581         7263         6754         9928         2100           Benzolajene         0.107         1.34         1.24         1.82         3.8           Benzolajenthracene         0.025         0.313         0.0291         0.427         0.90           Benzolajpyrene         0.0025         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-cthloroethyl)ether         42.83         535         498         731         154           Bis(2-cthloroethyl)ether         42.83         535         498         731         154           Bis(2-cthloroethyl)ether         7.55         94.4         87.8         129         27           Bromodichloromethane         [Dichorobromomethane]         1060         13250         12323         18114         3832           Carbon Tetrachloride         46         575         535         786         166           Chlorobenzene         0.737         34213         31818         46771         9895           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827
Benzidine         0.107         1.34         1.24         1.82         3.8           Benzo(a)anthracene         0.025         0.313         0.291         0.427         0.90           Benzo(a)pyrene         0.025         0.0313         0.0291         0.0427         0.90           Bis(chloromethyl)ether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-chloromethyl)ether         42.83         535         498         731         154           Bis(2-chloroethyl)ether         7.55         94.4         87.8         129         27           Bromodichloromethane         [Dichlorobromomethane]         705         3438         3197         4699         994           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmiun         N/A         N/A         N/A         N/A         N/A         N/A           Chlorobenzene         2737         34213         0.1818         46771         9895           Chlorobenzene         252         31.5         29.3         43.0         91 <t< td=""></t<>
Benzo(a)anthracene         0.025         0.313         0.291         0.427         0.90           Benzo(a)pyrene         0.0025         0.0313         0.0291         0.0427         0.090           Bis(chloromethyl)ether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bromodichloromethane         7.55         94.4         87.8         129         27           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorodbiromomethane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorodbiromomethane         1050         16233         31818         46771         9895           Chlorodbiromomethane         1050         6275         5836         8578         1814
Benzo(a)pyrene         0.0025         0.0313         0.0291         0.0427         0.090           Bis(chloromethyl)ether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]         7.55         94.4         87.8         129         77           Bromodichloromethane         7.55         94.4         87.8         129         77           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorobenzene         2737         34213         31818         46771         9895           Chloroform [Trichloromethane]         183         2288         2127         5326         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91         116263         108124         15892         3062           Cyanide (free)         N/A
Bis(chloromethyl)ether         0.2745         3.43         3.19         4.69         9.9           Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]         7.55         94.4         87.8         129         27           Bromodichloromethane         [Dichlorobromomethane]         275         3438         3197         4699         994           Bromodichloromethane         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorodane         0.0025         0.0313         0.0291         0.0427         0.900           Chlorodibromethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0
Bis(2-chloroethyl)ether         42.83         535         498         731         154           Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]         7.55         94.4         87.8         129         27           Bromodichloromethane [Dichlorobromomethane]         275         3438         3197         4699         994           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorobenzene         2737         34213         31818         46771         9895           Chlorobiromethane         1183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chronium (hexavalent)         502         6275         5836         8578         1814           Chrosofir [Trichloromethane]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)         7.55         94.4         87.8         129         27           Bromodichloromethane [Dichlorobromomethane]         275         3438         3197         4699         994           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         1666           Chlordane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorobenzene         2737         34213         31818         46771         9895           Chloroform [Trichloromethane]         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942 <t< td=""></t<>
phthalate]         7.55         94.4         87.8         129         27           Bromodichloromethane         275         3438         3197         4699         994           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorobenzene         2737         34213         31818         46771         9895           Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chronium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A         N/A         A/A
Bromodichloromethane         275         3438         3197         4699         994           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlordane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorobenzene         2737         34213         31818         46771         9895           Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chronium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4
[Dichlorobromomethane]         275         3438         3197         4699         994           Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorobenzene         2737         34213         31818         46771         9895           Chlorobenzene         2737         34213         31818         46771         9895           Chloroform Omethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A         N/A
Bromoform [Tribromomethane]         1060         13250         12323         18114         3832           Cadmium         N/A         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlorodane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorodibromomethane         2737         34213         31818         46771         9895           Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Crysnie (free)         N/A         N/A         131532         27827           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DD         0.00013         0.00163         0.00151         0.0022         0.0046           ,4-D-
Cadmium         N/A         N/A         N/A         N/A         N/A           Carbon Tetrachloride         46         575         535         786         166           Chlordane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorodibromomethane         2737         34213         31818         46771         9855           Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DD         0.0001         0.00153         0.0022         0.00465         0.00683         0.0144           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A         N/A
Carbon Tetrachloride         46         575         535         786         166           Chlordane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorobenzene         2737         34213         31818         46771         9895           Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.0013         0.00151         0.0022         0.0233         0.0341         0.072           4,4'-DDT         0.0004         0.00050         0.00465         0.00683         0.014           2,4'-D         N/A         N/A         N/A         N/A         N/A           1,2-Dibro
Chlordane         0.0025         0.0313         0.0291         0.0427         0.090           Chlorobenzene         2737         34213         31818         46771         9895           Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.0013         0.00151         0.0022         0.0046         0.0024         0.0022         0.0046         0.0063         0.014           2,4'-D         N/A
Chlorobenzene         2737         34213         31818         46771         9895           Chlorodibromomethane         [Dibromochloromethane]         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDT         0.0004         0.00500         0.00465         0.00683         0.014           2,4'-D         N/A         N/A         N/A         N/A         N/A           Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         15
Chlorodibromomethane         183         2288         2127         3127         661           Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A         10072           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDT         0.0004         0.00500         0.00455         0.0063         0.014           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         15 <i>n</i> -Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151 <i>o</i> -Dichlorobenzene [1,4-Dichlorobenzene]         3299
Chloroform [Trichloromethane]         7697         96213         89478         131532         27827           Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDT         0.0004         0.000500         0.00465         0.00683         0.0144           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         155 <i>p</i> -Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]         3299         41238         38351         56375         11927 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]         2.24
Chromium (hexavalent)         502         6275         5836         8578         1814           Chrysene         2.52         31.5         29.3         43.0         91.           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDE         0.00013         0.00163         0.00151         0.0022         0.0046           4,4'-DDT         0.0004         0.00500         0.00465         0.00683         0.0144           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         155           o-Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151           o-Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A
Chrysene         2.52         31.5         29.3         43.0         91.0           Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDE         0.00013         0.00163         0.00151         0.00222         0.0046           4,4'-DDT         0.0004         0.00500         0.00465         0.00683         0.0144           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         15           o-Dichlorobenzene [1,3-Dichlorobenzene]         3299         41238         38351         56375         11927           p-Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A
Cresols [Methylphenols]         9301         116263         108124         158942         33626           Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDE         0.00013         0.00163         0.00151         0.00222         0.0046           4,4'-DDT         0.0004         0.00500         0.00465         0.00683         0.0144           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A         N/A           Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         155 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]         3299         41238         38351         56375         11927 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A         N/A           3,3'-Dichlorobenzenie [1,4-Dichlorobenzene]
Cyanide (free)         N/A         N/A         N/A         N/A         N/A         N/A           4,4'-DDD         0.002         0.0250         0.0233         0.0341         0.072           4,4'-DDE         0.00013         0.00163         0.00151         0.00222         0.0046           4,4'-DDT         0.0004         0.00500         0.00465         0.00683         0.014           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         15           m-Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151           o-Dichlorobenzene [1,4-Dichlorobenzene]         3299         41238         38351         56375         11927           p-Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A         N/A           3.3'-Dichlorobenzidine         2.24         28.0         26.0
4,4'-DDD       0.002       0.0250       0.0233       0.0341       0.072         4,4'-DDE       0.00013       0.00163       0.00151       0.00222       0.0046         4,4'-DDT       0.0004       0.00500       0.00465       0.00683       0.014         2,4'-D       N/A       N/A       N/A       N/A       N/A       N/A         2,4'-D       N/A       N/A       N/A       N/A       N/A       N/A       N/A         Danitol [Fenpropathrin]       473       5913       5499       8082       1710         1,2-Dibromoethane [Ethylene Dibromide]       4.24       53.0       49.3       72.4       15 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]       595       7438       6917       10167       2151 <i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]       3299       41238       38351       56375       11927 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]       N/A       N/A       N/A       N/A       N/A         3,3'-Dichlorobenzene [1,4-Dichlorobenzene]       2.24       28.0       26.0       38.2       80.0         1,2-Dichloroethane       364       4550       4232       6220       1315         1,1-Dichloroethylene [1,1-Dichloroethen
4,4'-DDE       0.00013       0.00163       0.00151       0.00222       0.0046         4,4'-DDT       0.0004       0.00500       0.00465       0.00683       0.014         2,4'-D       N/A       N/A       N/A       N/A       N/A       N/A         Danitol [Fenpropathrin]       473       5913       5499       8082       1710         1,2-Dibromoethane [Ethylene Dibromide]       4.24       53.0       49.3       72.4       15 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]       595       7438       6917       10167       2151 <i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]       3299       41238       38351       56375       11927 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]       2.24       28.0       26.0       38.2       80.0         1,2-Dichlorobenzene [1,4-Dichlorobenzene]       55114       688925       640700       941829       199257         Dichloroethane       364       4550       4232       6220       1315       1,1-Dichloroethane       13333       166663       154996       227844       48203
4,4'-DDT       0.0004       0.00500       0.00465       0.00683       0.014         2,4'-D       N/A       N/A       N/A       N/A       N/A       N/A       N/A         Danitol [Fenpropathrin]       473       5913       5499       8082       1710         1,2-Dibromoethane [Ethylene Dibromide]       4.24       53.0       49.3       72.4       15         m-Dichlorobenzene [1,3-Dichlorobenzene]       595       7438       6917       10167       2151         o-Dichlorobenzene [1,2-Dichlorobenzene]       3299       41238       38351       56375       11927         p-Dichlorobenzene [1,4-Dichlorobenzene]       N/A       N/A       N/A       N/A       N/A         3,3'-Dichlorobenzidine       2.24       28.0       26.0       38.2       80.0         1,2-Dichloroethane       364       4550       4232       6220       1315         1,1-Dichloroethylene [1,1-Dichloroethene]       55114       688925       640700       941829       199257         Dichloromethane [Methylene Chloride]       1333       166663       154996       227844       48203
2,4'-D         N/A         N/A         N/A         N/A         N/A         N/A           Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         15 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151 <i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]         3299         41238         38351         56375         11927 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A         N/A           3,3'-Dichlorobenzidine         2.24         28.0         26.0         38.2         80.           1,2-Dichloroethane         364         4550         4232         6220         1315           1,1-Dichloroethylene [1,1-Dichloroethene]         55114         688925         640700         941829         199257           Dichloromethane [Methylene Chloride]         13333         166663         154996         227844         48203
Danitol [Fenpropathrin]         473         5913         5499         8082         1710           1,2-Dibromoethane [Ethylene Dibromide]         4.24         53.0         49.3         72.4         15           m-Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151           o-Dichlorobenzene [1,2-Dichlorobenzene]         3299         41238         38351         56375         11927           p-Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A         N/A           3.3'-Dichlorobenzidine         2.24         28.0         26.0         38.2         80.           1,2-Dichloroethane         364         4550         4232         6220         1315           1,1-Dichloroethylene [1,1-Dichloroethene]         55114         688925         640700         941829         199257           Dichloromethane [Methylene Chloride]         1333         166663         154996         227844         48203
1,2-Dibromoethane [Ethylene Dibromide]       4.24       53.0       49.3       72.4       15         m-Dichlorobenzene [1,3-Dichlorobenzene]       595       7438       6917       10167       2151         o-Dichlorobenzene [1,2-Dichlorobenzene]       3299       41238       38351       56375       11927         p-Dichlorobenzene [1,4-Dichlorobenzene]       N/A       N/A       N/A       N/A       N/A         3,3'-Dichlorobenzidine       2.24       28.0       26.0       38.2       80.         1,2-Dichloroethane       364       4550       4232       6220       1315         1,1-Dichloroethylene [1,1-Dichloroethene]       55114       688925       640700       941829       199257         Dichloromethane [Methylene Chloride]       13333       166663       154996       227844       48203
m-Dichlorobenzene [1,3-Dichlorobenzene]         595         7438         6917         10167         2151           o-Dichlorobenzene [1,2-Dichlorobenzene]         3299         41238         38351         56375         11927           p-Dichlorobenzene [1,4-Dichlorobenzene]         N/A         N/A         N/A         N/A         N/A           3,3'-Dichlorobenzidine         2.24         28.0         26.0         38.2         80.           1,2-Dichloroethane         364         4550         4232         6220         1315           1,1-Dichloroethylene [1,1-Dichloroethene]         55114         688925         640700         941829         199257           Dichloromethane [Methylene Chloride]         1333         166663         154996         227844         48203
o-Dichlorobenzene [1,2-Dichlorobenzene]         3299         41238         38351         56375         11927           p-Dichlorobenzene [1,4-Dichlorobenzene]         N/A
p-Dichlorobenzene [1,4-Dichlorobenzene]         N/A
3,3'-Dichlorobenzidine       2.24       28.0       26.0       38.2       80.         1,2-Dichloroethane       364       4550       4232       6220       1315         1,1-Dichloroethylene [1,1-Dichloroethene]       55114       688925       640700       941829       199257         Dichloromethane [Methylene Chloride]       13333       166663       154996       227844       48203
1,2-Dichloroethane         364         4550         4232         6220         1315           1,1-Dichloroethylene [1,1-Dichloroethene]         55114         688925         640700         941829         199257           Dichloromethane [Methylene Chloride]         13333         166663         154996         227844         48203
1,1-Dichloroethylene [1,1-Dichloroethene]         55114         688925         640700         941829         199257           Dichloromethane [Methylene Chloride]         13333         166663         154996         227844         48203
Dichloromethane [Methylene Chloride] 13333 166663 154996 227844 48203
1.2-Dichloropropane 259 3238 3011 4425 936
1.3-Dichloropropene [1.3-Dichloropropylene] 119 1488 1383 2033 430
Dicofol [Kelthane] 0.30 3.75 3.49 5.12 10
Dieldrin 2 0E-05 0 000250 0 000233 0 000341 0 00072
2.02-05 0.000256 0.000255 0.000341 0.00072
Di-n-Rutyl Dhthalate 03.4 1155 1074 1570 224
0 000001 0 000001 0 00000
Dioxins/Furans [TCDD Equivalents] 7.97E-08 9.96E-07 9.27E-07 4
Dioxins/Furans [TCDD Equivalents]         7.97E-08         9.96E-07         9.27E-07         4           Endrin         0.02         0.250         0.233         0.341         0.72
Dioxins/Furans [TCDD Equivalents]         7.97E-08         9.96E-07         9.27E-07         4           Endrin         0.02         0.250         0.233         0.341         0.72           Epichlorohydrin         2013         25163         23401         34399         7277

		21000000	19530000	28709100	60738300
Ethylene Glycol	1.68E+07	0	0	0	0
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00125	0.00116	0.00170	0.00361
Heptachlor Epoxide	0.00029	0.00363	0.00337	0.00495	0.0104
Hexachlorobenzene	0.00068	0.00850	0.00791	0.0116	0.0245
Hexachlorobutadiene	0.22	2.75	2.56	3.75	7.95
Hexachlorocyclohexane (alpha)	0.0084	0.105	0.0977	0.143	0.303
Hexachlorocyclohexane (beta)	0.26	3.25	3.02	4.44	9.39
Hexachlorocyclohexane (gamma) [Lindane]	0.341	4.26	3.96	5.82	12.3
Hexachlorocyclopentadiene	11.6	145	135	198	419
Hexachloroethane	2.33	29.1	27.1	39.8	84.2
Hexachlorophene	2.90	36.3	33.7	49.5	104
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	199775	185791	273112	577809
Lead	3.83	127	118	173	366
Mercury	0.0250	0.313	0.291	0.427	0.903
Methoxychlor	3.0	37.5	34.9	51.2	108
Methyl Ethyl Ketone	9.92E+05	12400000	11532000	16952040	35864520
Methyl tert-butyl ether [MTBE]	10482	131025	121853	179124	378963
Nickel	1140	14250	13253	19481	41215
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	23413	21774	32007	67715
N-Nitrosodiethylamine	2.1	26.3	24.4	35.8	75.9
N-Nitroso-di-n-Butylamine	4.2	52.5	48.8	71.7	151
Pentachlorobenzene	0.355	4.44	4.13	6.06	12.8
Pentachlorophenol	0.29	3.63	3.37	4.95	10.4
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.00800	0.00744	0.0109	0.0231
Pyridine	947	11838	11009	16183	34237
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	3.00	2.79	4.10	8.67
1,1,2,2-Tetrachloroethane	26.35	329	306	450	952
Tetrachloroethylene [Tetrachloroethylene]	280	3500	3255	4784	10123
Thallium	0.23	2.88	2.67	3.93	8.31
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.138	0.128	0.187	0.397
2,4,5-TP [Silvex]	369	4613	4290	6305	13340
1,1,1-Trichloroethane	784354	9804425	9118115	13403629	28357338
1,1,2-Trichloroethane	166	2075	1930	2836	6001
Trichloroethylene [Trichloroethene]	71.9	899	836	1228	2599
2,4,5-Trichlorophenol	1867	23338	21704	31904	67499
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	206	192	281	596

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

Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(μg/L)	(μg/L)
Acrylonitrile	1375	1670
Aldrin	0.000137	0.000166
Anthracene	15754	19130
Antimony	12811	15556
Arsenic	N/A	N/A
Barium	N/A	N/A

Benzene	6949	8439
Benzidine	1.27	1.55
Benzo(a)anthracene	0.299	0.363
Benzo( <i>a</i> )pyrene	0.0299	0.0363
Bis(chloromethyl)ether	3.28	3.98
Bis(2-chloroethyl)ether	512	622
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl)		
phthalate]	90.3	109
Bromodichloromethane		
	3289	3994
Bromoform [Tribromomethane]	12679	15396
Cadmium	N/A	N/A
Carbon Tetrachloride	550	668
Chlordane	0.0299	0.0363
Chlorobenzene	32740	39756
Chlorodibromomethane	2190	2650
[Dibiomocnoronethane]	02072	111000
Choronolorin [Inchoroniethane]	92072	7201
Chromium (nexavalent)	6004	7291
Chrysene	30.1	36.6
	111259	135101
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0239	0.0290
4,4'-DDE	0.00155	0.00188
4,4'-DDT	0.00478	0.00581
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	5658	6870
1,2-Dibromoethane [Ethylene Dibromide]	50.7	61.5
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	7117	8642
o-Dichlorobenzene [1,2-Dichlorobenzene]	39463	47919
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	26.7	32.5
1,2-Dichloroethane	4354	5287
1,1-Dichloroethylene [1,1-Dichloroethene]	659280	800554
Dichloromethane [Methylene Chloride]	159491	193667
1,2-Dichloropropane	3098	3762
1,3-Dichloropropene [1,3-Dichloropropylene]	1423	1728
Dicofol [Kelthane]	3.58	4.35
Dieldrin	0.000239	0.000290
2,4-Dimethylphenol	100912	122536
Di-n-Butyl Phthalate	1105	1342
		0.000001
Dioxins/Furans [TCDD Equivalents]	9.53E-07	2
Endrin	0.239	0.290
Epichlorohydrin	24079	29239
Ethylbenzene	22333	27118
Ethylene Glycol	20096370 0	24402735 0
Fluoride	N/A	N/A
Heptachlor	0.00119	0.00145
Heptachlor Epoxide	0.00346	0.00421
Hexachlorobenzene	0.00813	0.00987
Hexachlorobutadiene	2.63	3.19
Hexachlorocyclohexane ( <i>alpha</i> )	0.100	0.122
Hexachlorocyclohexane ( <i>beta</i> )	3.11	3.77
Hexachlorocyclohexane ( <i>gamma</i> ) [Lindane]	4.07	4.95

	120	100
Hexachiorocyclopentadiene	138	168
Hexachloroethane	27.8	33.8
Hexachlorophene	34.6	42.1
4,4'-Isopropylidenediphenol [Bisphenol A]	191178	232145
Lead	121	147
Mercury	0.299	0.363
Methoxychlor	35.8	43.5
Methyl Ethyl Ketone	11866428	14409234
Methyl tert-butyl ether [MTBE]	125386	152255
Nickel	13636	16558
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	22405	27206
N-Nitrosodiethylamine	25.1	30.5
N-Nitroso-di-n-Butylamine	50.2	61.0
Pentachlorobenzene	4.24	5.15
Pentachlorophenol	3.46	4.21
Polychlorinated Biphenyls [PCBs]	0.00765	0.00929
Pyridine	11328	13755
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.87	3.48
1,1,2,2-Tetrachloroethane	315	382
Tetrachloroethylene [Tetrachloroethylene]	3349	4067
Thallium	2.75	3.34
Toluene	N/A	N/A
Toxaphene	0.131	0.159
2,4,5-TP [Silvex]	4414	5359
1,1,1-Trichloroethane	9382540	11393085
1,1,2-Trichloroethane	1985	2411
Trichloroethylene [Trichloroethene]	860	1044
2,4,5-Trichlorophenol	22333	27118
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	197	239

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: City of Port Arthur

PERMIT NUMBER: WQ0010364001

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

	Y	Ν	
Administrative Report 1.0	$\boxtimes$		
Administrative Report 1.1	$\boxtimes$		
SPIF	$\boxtimes$		
Core Data Form	$\boxtimes$		
Public Involvement Plan Form	$\boxtimes$		
Technical Report 1.0	$\boxtimes$		
Technical Report 1.1	$\boxtimes$		
Worksheet 2.0	$\boxtimes$		
Worksheet 2.1		$\boxtimes$	
Worksheet 3.0		$\boxtimes$	
Worksheet 3.1		$\boxtimes$	
Worksheet 3.2		$\boxtimes$	
Worksheet 3.3		$\boxtimes$	
Worksheet 4.0	$\boxtimes$		
Worksheet 5.0	$\boxtimes$		
Worksheet 6.0	$\boxtimes$		
Worksheet 7.0		$\boxtimes$	

Original USGS Map	$\boxtimes$	
Affected Landowners Map	$\boxtimes$	
Landowner Disk or Labels	$\boxtimes$	
Buffer Zone Map	$\boxtimes$	
Flow Diagram	$\boxtimes$	
Site Drawing	$\boxtimes$	
Original Photographs	$\boxtimes$	
Design Calculations	$\boxtimes$	
Solids Management Plan	$\boxtimes$	
Water Balance		$\boxtimes$

Y

N



For TCEQ Use Only			
Segment Number	0703	County_	Sefferson
Expiration Date Permit Number	0/10/2025	Region _	10-Boumant





## 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 <0.05 MGD ≥0.05 but <0.1 ≥0.10 but <0.2 ≥0.25 but <0.5 ≥0.50 but <1.0 ≥1.0 MGD	0 MGD 5 MGD 0 MGD MGD	New/Major An \$350.00 □ \$550.00 □ \$850.00 □ \$1,250.00 □ \$1,650.00 □ \$2,050.00 ⊠	nend	Iment       Renewal         \$315.00 □         \$515.00 □         \$815.00 □         \$1,215.00 □         \$1,615.00 □         \$2,015.00 □	
Minor Amendm	ent (for any flow	) \$150.00 🗆			
Payment Inform	nation:				
Mailed	Check/Mone	ey Order Number	: <u>41(</u>	0208	
	Check/Mone	ey Order Amount	: <u>\$2</u> ,	<u>,050.00</u>	
	Name Printe	d on Check: <u>City</u>	of P	<u>Port Arthur</u>	
EPAY	Voucher Nur	nber: <u>N/A</u>			
Copy of F	ayment Voucher	enclosed?		Yes 🗆	
Section 2. Ty	pe of Applic	cation (Instru	ictio	ons Page 29)	
□ New TPDES				New TLAP	
🖾 Major Amer	ndment <u>with</u> Ren	ewal		Minor Amendment <u>with</u> Renewal	
□ Major Amer	dment <u>without</u> R	tenewal		Minor Amendment <u>without</u> Renewal	
🗆 Renewal wit	hout changes			Minor Modification of permit	
<ul> <li>Renewal without changes</li> <li>Minor Modification of permit</li> <li>For amendments or modifications, describe the proposed changes: This major amendment requests the addition of a second outfall (Outfall 002) to the Main WWTP's discharge permit. The WWTP will remain at its current flow rate of 9.2 MGD.</li> <li>For existing permits:</li> <li>Permit Number: WQ0010364001</li> <li>EPA I.D. (TPDES only): TX0047589</li> <li>Expiration Date: October 12, 2023</li> </ul>					

## Section 3. Facility Owner (Applicant) and Co-Applicant Information

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

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

City of Port Arthur

(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 <u>http://www15.tceq.texas.gov/crpub/</u>

CN: 600132021

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): <u>Mr.</u>

First and Last Name: Calvin Matthews

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

Title: Director of Utility Operations

**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?

<u>N/A</u>

(*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: <u>http://www15.tceq.texas.gov/crpub/</u>

#### CN: <u>N/A</u>

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

Title: N/A

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



#### C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0.

Attachment: Attachment AR-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): <u>Mr.</u>		
	First and Last Name: <u>Calvin Matthews</u>		
	Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u>		
	Title: Director of Utility Operations		
	Organization Name: <u>City of Port Arthur</u>		
	Mailing Address: <u>PO Box 1089</u>		
	City, State, Zip Code: Port Arthur, TX 77641		
	Phone No.: <u>(409) 983-8180</u> Ext.: <u>N/A</u> Fax No.: <u>(409) 983-8558</u>		
	E-mail Address: <u>calvin.matthews@portarthurtx.gov</u>		
	Check one or both:	$\boxtimes$	Technical Contact
B.	Prefix (Mr., Ms., Miss): <u>Ms.</u>		
	First and Last Name: <u>Katie Leatherwood</u>		
	Credential (P.E, P.G., Ph.D., etc.): <u>P.G.</u>		
	Title: <u>Environmental Scientist</u>		
	Organization Name: Freese and Nichols, Inc.		
	Mailing Address: <u>801 Cherry Street, Suite 2800</u>		
	City, State, Zip Code: Fort Worth, TX 76102		
	Phone No.: <u>(817) 735-7503</u> Ext.: <u>N/A</u> Fax No.: <u>(817) 735-7492</u>		
	E-mail Address: <u>katie.leatherwood@freese.com</u>		
	Check one or both: 🛛 Administrative Contact	$\boxtimes$	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): <u>Mr.</u>
First and Last Name: <u>Calvin Matthews</u>
Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u>
Title: <u>Director of Utility Operations</u>
Organization Name: <u>City of Port Arthur</u>
Mailing Address: <u>PO Box 1089</u>
City, State, Zip Code: <u>Port Arthur, TX 77641</u>
Phone No.: <u>(409) 983-8180</u> Ext.: <u>N/A</u> Fax No.: <u>(409) 983-8558</u>
E-mail Address: <u>calvin.matthews@portarthurtx.gov</u>

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



First and Last Name: <u>Danny Thibodeaux</u> Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u> Title: <u>Wastewater Treatment Superintendent</u> Organization Name: <u>City of Port Arthur</u> Mailing Address: <u>PO Box 1089</u> City, State, Zip Code: <u>Port Arthur, TX 77641</u> Phone No.: <u>(409) 962-7871</u> Ext.: <u>N/A Fax No.: (409) 983-8558</u> E-mail Address: <u>danny.thibodeaux@portarthurtx.gov</u>

# 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): <u>Mr.</u>

First and Last Name: Calvin Matthews

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

Title: Director of Utilities Operations

Organization Name: City of Port Arthur

Mailing Address: <u>PO Box 1089</u>

City, State, Zip Code: Port Arthur, TX 77641

Phone No.: (409) 983-8180 Ext.: N/A Fax No.: (409) 983-8558

E-mail Address: <u>calvin.matthews@portarthurtx.gov</u>

# 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): <u>Mr.</u>

First and Last Name: <u>Danny Thibodeaux</u>

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

Title: Wastewater Treatment Superintendent

Organization Name: City of Port Arthur

Mailing Address: <u>PO Box 1089</u>

City, State, Zip Code: Port Arthur, TX 77641

Phone No.: (409) 962-7871 Ext.: N/A Fax No.: (409) 983-8558

E-mail Address: <u>danny.thibodeaux@portarthurtx.gov</u>

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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): <u>Mr.</u> First and Last Name: <u>Floyd Riley</u> Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u> Title: <u>Utility Compliance Manager</u> Organization Name: <u>City of Port Arthur</u> Mailing Address: <u>PO Box 1089</u> City, State, Zip Code: <u>Port Arthur, TX 77641</u> Phone No.: <u>(409) 983-8290 Ext.: N/A Fax No.: (409) 983-8558</u> E-mail Address: <u>floyd.riley@portarthurtx.gov</u>

# 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): <u>Mr.</u> First and Last Name: <u>Calvin Matthews</u> Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u> Title: <u>Director of Utility Operations</u> Organization Name: <u>City of Port Arthur</u> Phone No.: <u>(409) 983-8180</u> Ext.: <u>N/A</u> E-mail: <u>calvin.matthews@portarthurtx.gov</u>

#### 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: Port Arthur City Hall

Location within the building: First Floor Lobby, Security Desk

Physical Address of Building: <u>444 4th St.</u>

City: Port Arthur

County: <u>Jefferson</u>

Contact Name: Calvin Matthews

Phone No.: (409) 983-8180 Ext.: N/A



E. Bilingual Notice Requirements:

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

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

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

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

🛛 Yes 🗆 No

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

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

🖾 Yes 🗆 No

3. Do the students at these schools attend a bilingual education program at another 4 2023 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? <u>Spanish</u>

#### F. Public Involvement Plan Form

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

Attachment: <u>Attachment AR-2</u>

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

**A.** If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**<u>101701241</u>

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

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

	Ó .		$\bigcirc$			
	Port Arthur Main Wastewater Treatment Facility	-	$\sum$			
C.	C. Owner of treatment facility: <u>City of Port Arthur</u>					
	Ownership of Facility: 🗵 Public 🔲 Pri	vate 🗆	Both	□ Federal		
D.	<b>D.</b> Owner of land where treatment facility is or will	l be:				
	Prefix (Mr., Ms., Miss): <u>N/A</u>					
	First and Last Name: <u>City of Port Arthur</u>					
	Mailing Address: <u>PO Box 1089</u>					
	City, State, Zip Code: <u>77641</u>					
	Phone No.: <u>(409)983-8180</u> E-mail Add	ress: <u>calvin.r</u>	natthews@p	oortarthurtx.gov		
	If the landowner is not the same person as the f agreement or deed recorded easement. See instr	acility owner uctions.	or co-appli	icant, attach a lease		
	Attachment: <u>N/A</u>					
E.	E. Owner of effluent disposal site:					
	Prefix (Mr., Ms., Miss): <u>N/A</u>					
	First and Last Name: <u>N/A</u>					
	Mailing Address: <u>N/A</u>					
	City, State, Zip Code: <u>N/A</u>					
	Phone No.: <u>N/A</u> E-mail Add	ress: <u>N/A</u>				
	If the landowner is not the same person as the fa agreement or deed recorded easement. See instr	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: <u>N/A</u>					
F.	F. Owner of sewage sludge disposal site (if authoriz property owned or controlled by the applicant):	zation is requ	uested for s	ludge disposal on		
	Prefix (Mr., Ms., Miss): <u>N/A</u>		1	DECEIVED		
	First and Last Name: <u>N/A</u>			MCC 4 4 2023		
	Mailing Address: <u>N/A</u>			APR 19 COLO		
	City, State, Zip Code: <u>N/A</u>			Water Quality Applications realing		
ļ	Phone No.: <u>N/A</u> E-mail Addr	ess: <u>N/A</u>		Harman		

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: <u>N/A</u>

# 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:

<u>N/A</u>

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:

The current permitted outfall (Outfall 001) discharge route is correct. This application requests an additional outfall (Outfall 002) which will be located at 29.924806, -93.885778 along the Jefferson County Drainage District No. 7 drainage ditch (Procter Street Lateral and North Port Acres Ditch B). From the outfall location, the drainage ditch flows north for approximately half a mile before entering Sabine-Neches Canal Tidal (Segment ID 0703), a classified waterbody. Sabine-Neches Canal flows to reach the Sabine Pass (Segment ID 2411), a classified waterbody.

City nearest the outfall(s): Port Arthur

County in which the outfalls(s) is/are located: <u>Jefferson</u>

Outfall Latitude: 29.924806

Longitude: <u>-93.885778</u>

**C.** Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

🖾 Yes 🗆 No

If **yes**, indicate by a check mark if:

🛛 Authorization granted 🛛 🗆 Authorization pending

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

Attachment: Attachment AR-3

**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.

Cameron Parish (Louisiana) and Chambers County (Texas)

## Section 11. TLAP Disposal Information (Instructions Page 36)

A. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

🗆 Yes 🗆 No

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

 N/A
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 Water Quality Applications Team

- B. City nearest the disposal site: N/A
- C. County in which the disposal site is located: <u>N/A</u>
- **D.** Disposal Site Latitude: <u>N/A</u> Longitude: <u>N/A</u>
- E. For TLAPs, describe the routing of effluent from the treatment facility to the disposal site:

<u>N/A</u>

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

<u>N/A</u>

# 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.

<u>N/A</u>

- **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:

<u>N/A</u>

**D.** Do you owe any fees to the TCEQ?

🗆 Yes 🖾 No

If **yes**, provide the following information:

Account number: <u>N/A</u>

Amount past due: <u>N/A</u>

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E. Do you owe any penalties to the TCEQ?

 $\bowtie$ Yes No

If **yes**, please provide the following information:

Enforcement order number: N/A

Amount past due: N/A

## 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: X
  - Applicant's property boundary
  - Treatment facility boundary .

Attachment AR-4

- 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.

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Attachment 1 for Individuals as co-applicants

Other Attachments. Please specify: Attachments AR-1 (Core Data Form), AR-2 (PIP), and AR-3 (Drainage Authorization)

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The second second	APR 1 4 2023	
THE OWNER WATER OF THE OWNER OF T	Water Quality Applications Tean	1
## Section 14. Signature Page (Instructions Page 39)

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

Permit Number: WQ0010364001

Applicant: <u>City of Port Arthur</u>

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): Calvin Matthews

Signatory title: Director of Utility Operations

Date: 21 March 23 Signature:

(Use blue ink)

Subscribed and Sworn to before	e me by the	said Calvin	Matthews
on this	day_of	March	, 20 23
My commission expires on the_	21m	_day of <u>Februa</u>	<u>ry</u> , 20 <u>204</u> .

y Public

Crystal Anai Williams SADAY PUBLIC, STATE OF TEXAS COM. EXPIRES 02/28/2024 NOTARY ID # 12464135-2

County, Texas



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

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

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

#### DOMESTIC WASTEWATER

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

The City of Port Arthur (CN 600132021) operates the Main Wastewater Treatment Facility (RN101701241), a trickling filter facility. The facility is located at 6300 Procter St. Extension, in Port Arthur, Jefferson County, Texas, 77642.

This major permit amendment requests the addition of a second outfall (Outfall 002) to the Main WWTP's discharge permit. Outfall 002 is located in the Jefferson County Drainage District No. 7 (DD7) drainage ditch to the west of the Main WWTP. This application does not request an amendment to increase flow.

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. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by primary clarifiers, trickling filters, aeration basins, final clarifiers, chlorine contact basins, gravity thickeners, aerobic digesters, and sludge centrifuges.



#### 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.

La Ciudad de Port Arthur (CN 600132021) opera la Main Instalación de Tratamiento de Aguas Residuales (RN101701241), una instalación de filtrado percolador. La instalación está ubicada en 6300 Procter St. Extension, en Port Arthur, condado de Jefferson, Texas, 77642.

Esta modificación del permiso solicita la adición de un segundo emisario (Descarga 002) al permiso de descarga de la instalación. El emisario 002 está ubicado en la zanja de drenaje del distrito de drenaje número 7 (DD7) del condado de Jefferson al oeste de la planta de tratamiento de aguas residuales. Esta aplicación no solicita una enmienda para aumentar el flujo.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbónico (CBOD5) de cinco días, sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH3-N) y bacterias coliformes (Escherichia coli). Los contaminantes potenciales adicionales se incluyen en el Informe Técnico Doméstico 1.0, Sección 7. Análisis de Contaminantes de Efluentes Tratados y la Hoja de Trabajo Doméstica 4.0 en el paquete de solicitud de permiso. Las aguas residuales domésticas se tratan mediante clarificadores primarios, filtros percoladores, balsas de aireación, clarificadores finales, balsas de contacto con cloro, espesadores por gravedad, digestores aeróbicos y centrífugas de lodos.



# 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:
  - Mathematical 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.**  $\square$  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:

 $\Box$  USB Drive  $\boxtimes$  Four sets of labels

- **D.** Provide the source of the landowners' names and mailing addresses: <u>Jefferson Central</u> <u>Appraisal District</u>
- 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):

<u>N/A</u>

# Section 2. Original Photographs (Instructions Page 44)

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

- At least one original photograph of the new or expanded treatment unit location
- At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- At least one photograph of the existing/proposed effluent disposal site
- A plot plan or map showing the location and direction of each photograph

# Section 3. Buffer Zone Map (Instructions Page 44)

- A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.
  - The applicant's property boundary;
  - The required buffer zone; and
  - Each treatment unit; and
  - The distance from each treatment unit to the property boundaries.
- **B.** Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.
  - ⊠ Ownership
  - □ Restrictive easement
  - □ Nuisance odor control
  - □ Variance
- **C.** Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?
  - 🖾 Yes 🗆 No



# **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

# SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

#### FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:	
Application type:Renewal $X$ _Major Ar	nendmentMinor AmendmentNew
County:	_ Segment Number:0703
Admin Complete Date: 07/12/2023	3
Agency Receiving SPIF:	
$\underline{\qquad}$ Texas Historical Commission	U.S. Fish and Wildlife
$\underline{}$ 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: City of Port Arthur

Permit No. WQ00 10364001

EPA ID No. TX 0047589

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

6300 Procter St Extension, Port Arthur, Jefferson County, TX 77642

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APR 1 4 2023

Water Quality Applications Team

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): <u>Mr.</u>

First and Last Name: <u>Calvin Harris</u>

Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u>

Title: Director of Utility Operations

Mailing Address: PO Box 1089

City, State, Zip Code: Port Arthur, TX 77641

Phone No.: (409)983-8180 Ext.: N/A Fax No.: (409) 983-8558

E-mail Address: <a href="mailto:calvin.matthews@portarthurtx.gov">calvin.matthews@portarthurtx.gov</a>

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

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

The current permitted outfall (Outfall 001) discharge route is correct. This application requests an additional outfall (Outfall 002) which will be located at 29.924806, -93.885778 along the Jefferson County Drainage District No. 7 drainage ditch (Procter Street Lateral and North Port Acres Ditch B). From the outfall location, the drainage ditch flows north for approximately half a mile before entering Sabine-Neches Canal Tidal (Segment ID 0703), a classified waterbody. Sabine-Neches Canal flows to reach the Sabine Pass (Segment ID 2411), a classified waterbody.

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 designRECEIVED
- Additional phases of development that are planned for the future APR 1 4 2023

Water Quality Applications Team

- □ Sealing caves, fractures, sinkholes, other karst features
- □ Disturbance of vegetation or wetlands

None

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

7	Deccribe	ovicting	dicturhances	vogotation	and land year	
1.	Describe	existing	uistui Dances,	vegetation.	and fand use.	

The wastewater treatment plant property consists of maintained grass and wastewater treatment units.

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

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

The Main WWTP was originally constructed in the 1960s as a trickling filter plant. Since the original construction, the plant has undergone a few additions and rehabilitation to add peak flow. The units added or rehabilitated in 1991 included grit removal, stormwater clarifier, chlorine contact basin, belt presses with centrifuges, trickling filter distributors, converted anaerobic digester to aerobic digester, primary clarifier, trickling filter media replacement, solids contact aeration basin, and final clarifier. A general rehabilitation of units took place in 2011, including mechanical screen replacement, primary clarifier, trickling filter media, aeration basin gates, chlorine contact basin aeration, stormwater clarifier, and general electrical rehabilitation.

9. Provide a brief history of the property, and name of the architect/builder, if known. <u>The Main WWTP was originally constructed on undeveloped land in the 1960s as a trickling filter plant. The facility received its original permit on June 26, 1974. Since the original construction, the plant has undergone a few additions and rehabilitation such as the addition of the stormwater clarifier and solids contact aeration basin in 1991. However, no major rehabilitation or improvements have been done at the Main WWTP since 1991.</u>



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## CHECKLIST OF COMMON DEFICIENCIES

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

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

#### Things to Know:

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

Landowners Cross Reference List (See instructions for landowner requirements)	RECEIVED	N/A	$\boxtimes$	Yes
Landowners Labels or USB Drive attached (See instructions for landowner requirements)	APR 1 4 2023	N/A	$\boxtimes$	Yes
Original signature per 30 TAC § 305.44 - Blue Ink I	Preferred		$\boxtimes$	Yes

(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)



# 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): <u>9.2</u>
2-Hr Peak Flow (MGD): <u>44.8</u>
Estimated construction start date: <u>1986</u>
Estimated waste disposal start date: <u>1991</u>
B. Interim II Phase
Design Flow (MGD): <u>N/A</u>
2-Hr Peak Flow (MGD): <u>N/A</u>
Estimated construction start date: <u>N/A</u>
Estimated waste disposal start date: <u>N/A</u>
Estimated waste disposal start date: <u>N/A</u>
Estimated waste disposal start date: <u>N/A</u>

2-Hr Peak Flow (MGD): <u>44.8</u>

Estimated construction start date: 2022

Estimated waste disposal start date: 2026

**D.** Current operating phase: <u>Existing</u> Provide the startup date of the facility: <u>1991</u>

# 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

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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:

Attachment TR-1

Port or pipe diameter at the discharge point, in inches: <u>Outfall 001 (Sabine-Neches</u> <u>Canal) – 60"; New Outfall 002 (DD7) – 48"</u>

#### **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**.

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Attachment TR-2		

Table 1.0(1) – Treatment Units

#### C. Process flow diagrams

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

Attachment: Attachment TR-3

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# 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: Attachment TR-4

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

The Main WWTP serves the north, central, and south portions of Port Arthur.

# Section 4. Unbuilt Phases (Instructions Page 52)

No 🖂

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

Yes 🗆

**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.

<u>N/A</u>

# 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.

<u>N/A</u>

# 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: <u>1986</u>

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.

<u>N/A</u>

#### **B.** Buffer zones

Have the buffer zone requirements been met?

Yes 🛛 No 🗆

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Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.

City of Port Arthur owns all property in the buffer zone.

#### 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*.

Chronic toxic criteria apply to this WWTP. The permittee must also monitor Total Copper and not exceed the MAL of 0.002 mg/l. If the MAL is exceeded, the permittee must verbally notify TCEO Region 10 within 24 hours. The permittee must also send a written report to TCEO Region 10 and the Enforcement Division (MC 224) within five (5) business days. Additionally, the permittee must provide quarterly progress reports to TCEO Region 10 and the Water Ouality Compliance Monitoring Team of the Enforcement Division (MC 224) of TCEO. The progress reports shall include a discussion or all activities by the permittee to upgrade the facility and any operational actions taken to meet permitted effluent limits.

#### 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

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treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

<u>N/A</u>

# 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.

<u>N/A</u>

# 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.

<u>N/A</u>

#### E. Stormwater management

# 1. Applicability

Does the facility have a design flow of 1.0 MGD or greater in any phase?

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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 or TXRNE CC21

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:

<u>N/A</u>

# 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.

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N/A

# 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.

N/A

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

# 6. Request for coverage in individual permit

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

Yes 🗆 🛛 No 🗆

**If yes**, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

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N/A

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

#### 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.

<u>N/A</u>

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Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

# 2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

Yes 🗆 🛛 No 🖾

If yes, does the facility have a Type V processing unit?

Yes 🗆 No 🗆

If yes, does the unit have a Municipal Solid Waste permit?

Yes 🗆 No 🗆

**If yes to any of the above**, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the

 $BOD_5$  concentration of the septic waste, and the design  $BOD_5$  concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

<u>N/A</u>

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.

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<u>N/A</u>

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

Is the facility in operation?

Yes 🛛 No 🗆

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

If yes, provide effluent analysis data for the listed pollutants. *Wastewater treatment facilities* complete Table 1.0(2). W*ater treatment facilities* discharging filter backwash water, complete Table 1.0(3).

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD <sub>5</sub> , mg/l	6.24	6.24	1	Comp	12/7-12/8/22 11:30am-11:30am
Total Suspended Solids, mg/l	35.93	35.93	1	Comp	12/7-12/8/22 11:30am-11:30am
Ammonia Nitrogen, mg/l	15.27	15.27	1	Comp	12/7-12/8/22 11:30am-11:30am
Nitrate Nitrogen, mg/l	6.51	6.51	1	Grab	9/22/22 10:30 AM
Total Kjeldahl Nitrogen, mg/l	20.09	20.09	1	Comp	12/7-12/8/22 11:30am-11:30am
Sulfate, mg/l	68.88	68.88	1	Comp	12/7-12/8/22 11:30am-11:30am
Chloride, mg/l	148.18	148.18	1	Comp	12/7-12/8/22 11:30am-11:30am
Total Phosphorus, mg/l	1.9	1.9	1	Comp	12/20/22 7:30am
pH, standard units	6.98	6.98	1	Grab	12/8/22 1:00pm
Dissolved Oxygen*, mg/l	5.4	5.4	1	Grab	12/8/22 1:00pm
Chlorine Residual, mg/l	2.8	2.8	1	Grab	12/8/22 1:00pm
<i>E.coli</i> (CFU/100ml) freshwater	<1	<1	1	Grab	1/20/23 7:36am

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

TCEQ-10054 (06/01/2017)

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Entercocci (CFU/100ml) saltwater	52	59	3	Grab	1/23/23 9:50am
Total Dissolved Solids, mg/l	440	440	1	Comp	12/20/22 7:30am
Electrical Conductivity, µmohs/cm, †	NA	NA	NA	NA	NA
Oil & Grease, mg/l	2.86	2.86	1	Grab	12/8/22 1:00pm
Alkalinity (CaCO <sub>3</sub> )*, mg/l	139	139	1	Grab	12/20/22 7:30am

\*TPDES permits only

٤.,

**†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 (CaCO3), mg/l					

# Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Jerome N Hudson

Facility Operator's License Classification and Level: Wastewater Collection Operator III

Facility Operator's License Number: WW0025938

# Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

## A. Sludge disposal method

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

Permitted landfill

#### TCEQ-10054 (06/01/2017)

- 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: City of Port Arthur Landfill

TCEQ permit or registration number: 1815A

County where disposal site is located: Jefferson

#### C. Sludge transportation method

Method of transportation (truck, train, pipe, other): <u>Truck</u>

Name of the hauler: <u>City of Port Arthur</u>

Hauler registration number: 21769

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 ⊠

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**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:

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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
- $\Box$  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:

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100	

#### **B.** Temporary storage information

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

Nitrate Nitrogen, mg/kg:
Total Kjeldahl Nitrogen, mg/kg:
Total Nitrogen (=nitrate nitrogen + TKN), mg/kg:
Phosphorus, mg/kg:
Potassium, mg/kg:
pH, standard units:
Ammonia Nitrogen mg/kg:
Arsenic:

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Cadmium:
Chromium:
Copper:
Lead:
Mercury:
Molybdenum:
Nickel:
Selenium:
Zinc:
Total PCBs:

Provide the following information:

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

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

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

#### C. Liner information

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

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Attach the following documents to the application.

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

Attachment:

• Copy of the closure plan

Attachment:

• Copy of deed recordation for the site

Attachment:

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

Attachment:

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

Attachment:

• Procedures to prevent the occurrence of nuisance conditions

Attachment:

#### E. Groundwater monitoring

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

#### Yes 🗆 🛛 No 🗆

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

Attachment:

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

#### A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

Yes 🗆 🛛 No 🖾

If yes, provide the TCEQ authorization number and description of the authorization:

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<u>/A</u>			

#### 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:

Around January 30, 2023, the TCEO Beaumont office referred the facility for formal Enforcement, but a TCEO order has not been issued. The facility has been under a Texas AG consent decree since 2009.

# 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:

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### 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
  - o 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: Calvin Matthews

Title: Director of Utility Operations Signature: Date:

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# **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.

Attachment TR-5

#### 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

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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: Attachment TR-6

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

Attachment: Attachment TR-6

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: <u>N/A</u>

# 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

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#### A. Current organic loading

Facility Design Flow (flow being requested in application): <u>9.2 MGD AADF; 44.8 MGD 2-</u> <u>Hr Peak Flow</u>

Average Influent Organic Strength or BOD<sub>5</sub> Concentration in mg/l: <u>108 mg/l</u>

Average Influent Loading (lbs/day = total average flow X average BOD<sub>5</sub> conc. X 8.34): 8,287 lbs/day

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

Influent concentrations from Main WWWTP Discharge Monitoring Reports

#### **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.

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality	9.2	108
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		

#### Table 1.1(1) - Design Organic Loading

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Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources	9.2	
AVERAGE BOD₅ from all sources		108

# 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: 20 Total Suspended Solids, mg/l: 20 Ammonia Nitrogen, mg/l: N/A Total Phosphorus, mg/l: N/A Dissolved Oxygen, mg/l: 3.0 Other: Total Copper, mg/l: 0.024; Enterococci, CFU or MPN/100 ml: 35

## B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: N/A Total Suspended Solids, mg/l: N/A Ammonia Nitrogen, mg/l: N/A Total Phosphorus, mg/l: N/A Dissolved Oxygen, mg/l: N/A Other: N/A

#### C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: <u>Outfall 001: 20; Outfall 002: 10</u> Total Suspended Solids, mg/l: <u>Outfall 001: 20; Outfall 002: 15</u> Ammonia Nitrogen, mg/l: <u>Outfall 001: N/A; Outfall 002: 3</u> Total Phosphorus, mg/l: <u>Outfall 001: N/A; Outfall 002: N/A</u> Dissolved Oxygen, mg/l: <u>Outfall 001: 3.0; Outfall 002: 3.0</u> Other: <u>Outfall 001 – Total Copper, mg/l: 0.024; Enterococci, CFU or MPN/100 ml: 35</u>

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#### D. Disinfection Method

Identify the proposed method of disinfection.

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

Dechlorination process: Sodium bisulfite injected at dechlorination chamber in the chlorine contact basins

- Ultraviolet Light: N/A seconds contact time at peak flow
- □ Other:

# Section 4. Design Calculations (Instructions Page 68)

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

Attachment: Attachment TR-7

# Section 5. Facility Site (Instructions Page 68)

#### A. 100-year floodplain

Will the proposed facilities be located <u>above</u> the 100-year frequency flood level?

Yes 🛛 🛛 No 🗆

**If no**, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures.

<u>N/A</u>

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

FEMA Map 4854990035E

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?

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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: TR-8

## 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: Attachment TR-9

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

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- 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.

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# **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: <u>850" (Outfall 001)</u>, <u>Outfall 002 is not</u> tidally affected

### 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).

From the outfall, water flows northeast through the Jefferson County Drainage District No. 7 (DD7) drainage ditch (Procter Street Lateral and North Port Acres Ditch B) for 0.5 miles. The drainage ditch flows to a DD7 pump station. Flows from the pump station flow into segment 24120W.

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#### C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

Yes 🗆 🛛 No 🖾

If yes, provide the distance and direction from the outfall(s).

N/A

# Section 3. Classified Segments (Instructions Page 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: <u>Jefferson County Drainage District No. 7</u> <u>drainage ditch (Procter St. Lat)</u>

### 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

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□ 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.



#### 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.

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<u>The Jefferson County Drainage District No. 7 drainage ditch (Procter Street Lateral</u> and North Port Acres Ditch B) flows northeast approximately half a mile into Sabine-<u>Neches Canal Tidal.</u>

#### E. Normal dry weather characteristics

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

The water body of the current outfall location is the Sabine-Neches Canal. Water is clear at this location. A barge is stationed directly in front of the outfall. The location of the proposed additional outfall is a maintained drainage ditch. The banks of the drainage ditch are lined with tall grasses.

Date and time of observation: 03/28/2023 15:36

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

### B. Waterbody uses

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

- $\Box$  Livestock watering  $\Box$  Co
- Irrigation withdrawal
- □ Fishing
- Domestic water supply
- Park activities

- Contact recreation
- Non-contact recreation
- Navigation (Current outfall)

Other(s), specify

- Industrial water supply
- $\boxtimes$  Other(s), specify <u>Stormwater</u>

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#### C. Waterbody aesthetics

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

- Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

# **DOMESTIC WORKSHEET 4.0**

# POLLUTANT ANALYSES REQUIREMENTS\*

The following is required for facilities with a permitted or proposed flow of 1.0 MGD or greater, facilities with an approved pretreatment program, or facilities classified as a major facility. See instructions for further details.

This worksheet is not required for minor amendments without renewal

# Section 1. Toxic Pollutants (Instructions Page 87)

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

Grab  $\Box$  Composite  $\boxtimes$ 

Date and time sample(s) collected: <u>9/22/22, 12/8/22</u>

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<0.003	< 0.003	1	50
Aldrin	< 0.03	<0.03	1	0.01
Aluminum	118.1	118.1	1	2.5
Anthracene	< 0.35	< 0.35	1	10
Antimony	<5	<5	1	5
Arsenic	2.3	2.3	1	0.5
Barium	51.26	51.26	1	3
Benzene	<1	<1	1	10
Benzidine	<0.66	<0.66	1	50
Benzo(a)anthracene	<0.38	<0.38	1	5
Benzo(a)pyrene	<0.85	< 0.85	1	5
Bis(2-chloroethyl)ether	<0.72	<0.72	1	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	1	10
Bromodichloromethane	<1	<1	1	10
Bromoform	<1	<1	1	10
Cadmium	<0.5	< 0.5	1	1

#### Table 4.0(1) – Toxics Analysis

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Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Carbon Tetrachloride	<1	<1	1	2
Carbaryl	<0.76	<0.76	1	5
Chlordane*	<0.1	<0.1	1	0.2
Chlorobenzene	<1	<1	1	10
Chlorodibromomethane	<1	<1	1	10
Chloroform	<1	<1	1	10
Chlorpyrifos	< 0.04	< 0.04	1	0.05
Chromium (Total)	<3	<3	1	3
Chromium (Tri) <b>(*1)</b>	<2	<2	1	N/A
Chromium (Hex)	<3	<3	1	3
Copper	9.43	9.43	1	2
Chrysene	< 0.57	< 0.57	1	5
p-Chloro-m-Cresol	< 0.004	< 0.004	1	10
4,6-Dinitro-o-Cresol	<0.66	<0.66	1	50
p-Cresol	< 0.004	< 0.004	1	10
Cyanide (*2)	<7	<7	1	10
4,4'- DDD	< 0.006	< 0.006	1	0.1
4,4'- DDE	< 0.002	< 0.002	1	0.1
4,4'- DDT	< 0.004	< 0.004	1	0.02
2,4-D	<0.19	<0.19	1	0.7
Demeton (O and S)	< 0.04	< 0.04	1	0.20
Diazinon	< 0.04	< 0.04	1	0.5/0.1
1,2-Dibromoethane	<1	<1	1	10
m-Dichlorobenzene	< 0.53	< 0.53	1	10
o-Dichlorobenzene	<0.41	<0.41	1	10
p-Dichlorobenzene	<0.25	<0.25	1	10
3,3'-Dichlorobenzidine	<0.88	<0.88	1	5
1,2-Dichloroethane	<1	<1	1	10
1,1-Dichloroethylene	<1	<1	1	10
Dichloromethane	<1	<1	1	20

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
1,2-Dichloropropane	<1	<1	1	10
1,3-Dichloropropene	<1	<1	1	10
Dicofol	< 0.05	<0.05	1	1
Dieldrin	< 0.003	< 0.003	1	0.02
2,4-Dimethylphenol	<0.53	<0.53	1	10
Di-n-Butyl Phthalate	<1.22	<1.22	1	10
Diuron	<0.86	<0.86	1	0.09
Endosulfan I (alpha)	< 0.003	< 0.003	1	0.01
Endosulfan II (beta)	< 0.004	< 0.004	1	0.02
Endosulfan Sulfate	< 0.003	< 0.003	1	0.1
Endrin	< 0.004	< 0.004	1	0.02
Ethylbenzene	<1	<1	1	10
Fluoride	660.15	660.15	1	500
Guthion	< 0.04	< 0.04	1	0.1
Heptachlor	< 0.005	<0.005	1	0.01
Heptachlor Epoxide	<0.002	< 0.002	1	0.01
Hexachlorobenzene	< 0.69	<0.69	1	5
Hexachlorobutadiene	<0.41	< 0.41	1	10
Hexachlorocyclohexane (alpha)	<0.008	<0.008	1	0.05
Hexachlorocyclohexane (beta)	<0.01	< 0.01	1	0.05
gamma-Hexachlorocyclohexane (Lindane)	<0.005	<0.005	1	0.05
Hexachlorocyclopentadiene	< 0.35	< 0.35	1	10
Hexachloroethane	<0.47	<0.47	1	20
Hexachlorophene	28.7	28.7	1	10
Lead	1.05	1.05	1	0.5
Malathion	< 0.05	< 0.05	1	0.1
Mercury	2.4	1.21	1	0.005
Methoxychlor	< 0.005	< 0.005	1	2
Methyl Ethyl Ketone	<1	<1	1	50

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Mirex	< 0.01	<0.01	1	0.02
Nickel	<2	<2	1	2
Nitrate-Nitrogen	6510	6510	1	100
Nitrobenzene	<0.91	<0.91	1	10
N-Nitrosodiethylamine	<5	<5	1	20
N-Nitroso-di-n-Butylamine	<5	<5	1	20
Nonylphenol	<5	<5	1	333
Parathion (ethyl)	<0.06	<0.06	1	0.1
Pentachlorobenzene	<3	<3	1	20
Pentachlorophenol	<0.5	<0.5	1	5
Phenanthrene	<0.44	<0.44	1	10
Polychlorinated Biphenyls (PCB's) (*3)	<0.0129	<0.0129	1	0.2
Pyridine	< 0.35	< 0.35	1	20
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
1,2,4,5-Tetrachlorobenzene	<5	<5	1	20
1,1,2,2-Tetrachloroethane	<1	<1	1	10
Tetrachloroethylene	<1	<1	1	10
Thallium	<0.6	<0.6	1	0.5
Toluene	<1	<1	1	10
Toxaphene	<0.1	<0.1	1	0.3
2,4,5-TP (Silvex)	<0.19	<0.19	1	0.3
Tributyltin (see instructions for explanation)	N/A	N/A	N/A	0.01
1,1,1-Trichloroethane	<1	<1	1	10
1,1,2-Trichloroethane	<1	<1	1	10
Trichloroethylene	<1	<1	1	10
2,4,5-Trichlorophenol	<0.85	<0.85	1	50
TTHM (Total Trihalomethanes)	<2	<2	1	10

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Vinyl Chloride	<1	<1	1	10
Zinc	37.81	37.81	1	5

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

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

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

# Section 2. Priority Pollutants

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

Grab 🛛 Composite 🗆

Date and time sample(s) collected: 9/22/22

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony	0.84	0.84	1	5
Arsenic	2.3	2.3	1	0.5
Beryllium	<0.1	<0.1	1	0.5
Cadmium	<0.5	<0.5	1	1
Chromium (Total)	<3	<3	1	3
Chromium (Hex)	<3	<3	1	3
Chromium (Tri) (*1)	<2	<2	1	N/A
Copper	9.43	9.43	1	2
Lead	1.05	1.05	1	0.5
Mercury	0.0165	0.0165	1	0.005
Nickel	<2	<2	1	2
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
Thallium	<0.6	<0.6	1	0.5
Zinc	37.81	37.81	1	5
Cyanide (*2)	<7	<7	1	10
Phenols, Total	56.6	56.6	1	10

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

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

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Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein	<6	<6	1	50
Acrylonitrile	<3	<3	1	50
Benzene	<1	<1	1	10
Bromoform	<1	<1	1	10
Carbon Tetrachloride	<1	<1	1	2
Chlorobenzene	<1	<1	1	10
Chlorodibromomethane	<1	<1	1	10
Chloroethane	<1	<1	1	50
2-Chloroethylvinyl Ether	<6	<6	1	10
Chloroform	<1	<1	1	10
Dichlorobromomethane [Bromodichloromethane]	<1	<1	1	10
1,1-Dichloroethane	<1	<1	1	10
1,2-Dichloroethane	<1	<1	1	10
1,1-Dichloroethylene	<1	<1	1	10
1,2-Dichloropropane	<1	<1	1	10
1,3-Dichloropropylene				
[1,3-Dichloropropene]	<1	<1	1	10
1,2-Trans-Dichloroethylene	<1	<1	1	10
Ethylbenzene	<1	<1	1	10
Methyl Bromide	<2	<2	1	50
Methyl Chloride	<1	<1	1	50
Methylene Chloride	<1	<1	1	20
1,1,2,2-Tetrachloroethane	<1	<1	1	10

# Table 4.0(2)B - Volatile Compounds

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

# Table 4.0(2)C - Acid Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol	<0.5	<0.5	1	10
2,4-Dichlorophenol	<0.69	<0.69	1	10
2,4-Dimethylphenol	<0.53	< 0.53	1	10
4,6-Dinitro-o-Cresol	<0.66	<0.66	1	50
2,4-Dinitrophenol	<1.41	<1.41	1	50
2-Nitrophenol	<0.88	<0.88	1	20
4-Nitrophenol	<1.13	<1.13	1	50
P-Chloro-m-Cresol	<4	<4	1	10
Pentalchlorophenol	< 0.5	<0.5	1	5
Phenol	< 0.44	<0.44	1	10
2,4,6-Trichlorophenol	<0.79	<0.79	1	10

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Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene	<0.28	<0.28	1	10
Acenaphthylene	<0.47	<0.47	1	10
Anthracene	< 0.35	< 0.35	1	10
Benzidine	<0.66	<0.66	1	50
Benzo(a)Anthracene	<0.38	<0.38	1	5
Benzo(a)Pyrene	<0.85	<0.85	1	5
3,4-Benzofluoranthene	<0.57	<0.57	1	10
Benzo(ghi)Perylene	<0.63	< 0.63	1	20
Benzo(k)Fluoranthene	<0.57	<0.57	1	5
Bis(2-Chloroethoxy)Methane	< 0.35	< 0.35	1	10
Bis(2-Chloroethyl)Ether	<0.72	<0.72	1	10
Bis(2-Chloroisopropyl)Ether	<0.85	<0.85	1	10
Bis(2-Ethylhexyl)Phthalate	<2.2	<2.2	1	10
4-Bromophenyl Phenyl Ether	<0.41	<0.41	1	10
Butyl benzyl Phthalate	<0.69	<0.69	1	10
2-Chloronaphthalene	<0.28	<0.28	1	10
4-Chlorophenyl phenyl ether	<0.66	<0.66	1	10
Chrysene	<0.57	<0.57	1	5
Dibenzo(a,h)Anthracene	<0.69	<0.69	1	5
1,2-(o)Dichlorobenzene	<0.41	<0.41	1	10
1,3-(m)Dichlorobenzene	< 0.53	< 0.53	1	10
1,4-(p)Dichlorobenzene	<0.25	<0.25	1	10
3,3-Dichlorobenzidine	<0.88	<0.88	1	5
Diethyl Phthalate	<0.63	<0.63	1	10

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

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Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Dimethyl Phthalate	<0.72	<0.72	1	10
Di-n-Butyl Phthalate	<1.2	<1.2	1	10
2,4-Dinitrotoluene	<0.97	<0.97	1	10
2,6-Dinitrotoluene	<1.2	<1.2	1	10
Di-n-Octyl Phthalate	<2.76	<2.76	1	10
1,2-Diphenylhydrazine (as Azo- benzene)	<0.22	<0.22	1	20
Fluoranthene	<0.57	<0.57	1	10
Fluorene	<0.47	<0.47	1	10
Hexachlorobenzene	<0.69	<0.69	1	5
Hexachlorobutadiene	<0.41	<0.41	1	10
Hexachlorocyclo-pentadiene	<0.35	<0.35	1	10
Hexachloroethane	<0.47	<0.47	1	20
Indeno(1,2,3-cd)pyrene	<0.22	<0.22	1	5
Isophorone	<0.28	<0.28	1	10
Naphthalene	<0.31	<0.31	1	10
Nitrobenzene	<0.91	<0.91	1	10
N-Nitrosodimethylamine	<0.79	<0.79	1	50
N-Nitrosodi-n-Propylamine	<0.72	<0.72	1	20
N-Nitrosodiphenylamine	<0.47	<0.47	1	20
Phenanthrene	<0.44	<0.44	1	10
Pyrene	<0.57	<0.57	1	10
1,2,4-Trichlorobenzene	<0.53	<0.53	1	10

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Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Aldrin	< 0.003	< 0.003	1	0.01
alpha-BHC (Hexachlorocyclohexane)	<0.008	<0.008	1	0.05
beta-BHC (Hexachlorocyclohexane)	< 0.004	< 0.004	1	0.05
gamma-BHC (Hexachlorocyclohexane)	<0.005	<0.005	1	0.05
delta-BHC (Hexachlorocyclohexane)	< 0.004	< 0.004	1	0.05
Chlordane	<0.1	<0.1	1	0.2
4,4-DDT	< 0.004	< 0.004	1	0.02
4,4-DDE	< 0.002	<0.002	1	0.1
4,4,-DDD	< 0.006	<0.006	1	0.1
Dieldrin	< 0.003	< 0.003	1	0.02
Endosulfan I (alpha)	< 0.003	< 0.003	1	0.01
Endosulfan II (beta)	< 0.004	< 0.004	1	0.02
Endosulfan Sulfate	< 0.003	< 0.003	1	0.1
Endrin	< 0.004	< 0.004	1	0.02
Endrin Aldehyde	<0.008	<0.008	1	0.1
Heptachlor	< 0.005	<0.005	1	0.01
Heptachlor Epoxide	< 0.002	<0.002	1	0.01
PCB-1242	<0.0129	<0.0129	1	0.2
PCB-1254	<0.0129	<0.0129	1	0.2
PCB-1221	<0.0129	<0.0129	1	0.2
PCB-1232	< 0.0129	<0.0129	1	0.2
PCB-1248	<0.0129	<0.0129	1	0.2

Table 4.0(2)E - Pesticides

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Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1260	< 0.01005	< 0.01005	1	0.2
PCB-1016	< 0.0146	< 0.0146	1	0.2
Toxaphene	<0.1	<0.1	1	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.

<u>N/A</u>

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**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.

<u>N/A</u>			

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 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5

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

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# DOMESTIC WORKSHEET 5.0

# TOXICITY TESTING REQUIREMENTS

The following is required for facilities with a currently-operating design flow greater than or equal to 1.0 MGD, with an EPA-approved pretreatment program (or those that are required to have one under 40 CFR Part 403), or

are required by the TCEQ to perform Whole Effluent Toxicity testing.

This worksheet is not required for minor amendments without renewal.

# Section 1. Required Tests (Instructions Page 97)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: <u>19</u>

48-hour Acute: <u>10</u>

# Section 2. Toxicity Reduction Evaluations (TREs)

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

Yes 🗆 🛛 No 🖾

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

<u>N/A</u>

# Section 3. Summary of WET Tests

If the required biomonitoring test information has not been previously submitted via both the Discharge Monitoring Reports (DMRs) and the Table 1 (as found in the permit), provide a summary of the testing results for all valid and invalid tests performed over the past four and one-half years. Make additional copies of this table as needed.

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal
	DMRs submitted		

# Table 5.0(1) - Summary of WET Tests

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# 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: <u>1</u>

Average Daily Flows, in MGD: 0.026

Significant IUs - non-categorical:

Number of IUs: <u>0</u>

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: <u>10</u>

Average Daily Flows, in MGD: 0.004

#### **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.

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# 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.

<u>N/A</u>

### 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.

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# 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.

<u>N/A</u>

# 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.

<u>N/A</u>

# 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

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Pollutant	Concentration	MAL	Units	Date
Antimony	0.84	5	ug/L	9/22/22
Arsenic	2.3	0.5	ug/L	9/22/22
Copper	9.43	2	ug/L	9/22/22
Lead	1.05	0.5	ug/L	9/22/22
Mercury	0.0165	0.005	ug/L	9/22/22
Zinc	37.81	5	ug/L	9/22/22
Phenols, Total	56.6	10	ug/L	9/22/22
Barium	51.26	3	ug/L	9/22/22
Aluminum	118.1	2.5	ug/L	9/22/22

# 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.

<u>N/A</u>

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

# A. General information

Company Name: <u>N/A</u>

SIC Code: <u>N/A</u>

Telephone number: <u>N/A</u> Fax number: <u>N/A</u>

Contact name: <u>N/A</u>

Address: <u>N/A</u>

City, State, and Zip Code: <u>N/A</u>

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#### **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).

<u>N/A</u>

# C. Product and service information

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

N/A D. Flow rate information

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

Process Wastewater:

Discharge,	in	gal	lons/	/day:	<u>N/A</u>	
------------	----	-----	-------	-------	------------	--

Discharge Type: 🗆	Continuous	Batch		Intermittent
Non-Process Wastewater:				
Discharge, in gallon	s/day: <u>N/A</u>			

Discharge Type: Continuous E Batch E Internit	Discharge Type: 🗆	Continuous		Batch		Intermittent
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# 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.

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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.

....

N/A



Texas Commission on Environmental Quality

# Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

#### Section 1. Preliminary Screening

New Permit or Registration Application

🗙 New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

#### Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, and

 $\times$  Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

Public Involvement Plan not applicable to this application. Provide **brief** explanation.

This permit has not had significant public interest in the last permit cycles.

APR 1 4 2023 Water Quality Applications Team

$\circ$
Section 3. Application Information
Type of Application (check all that apply):         Air       Initial       Federal       Amendment       Standard Permit       Title V         Waste       Municipal Solid Waste       Industrial and Hazardous Waste       Scrap Tire         Radioactive Material Licensing       Underground Injection Control         Water Quality       Texas Pollutant Discharge Elimination System (TPDES)         Texas Land Application Permit (TLAP)       State Only Concentrated Animal Feeding Operation (CAFO)         Water Treatment Plant Residuals Disposal Permit       Class B Biosolids Land Application Permit         Domestic Septage Land Application Registration       Permit
Water Rights New Permit          New Appropriation of Water         New or existing reservoir
Amendment to an Existing Water Right Add a New Appropriation of Water Add a New or Existing Reservoir Major Amendment that could affect other water rights or the environment
Section 4. Plain Language Summary Provide a brief description of planned activities.

	$\bigcirc$	
	Section 5. Community and Demographic Information	
	Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.	
	Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.	
	(City)	
	(County)	
	(Census Tract) Please indicate which of these three is the level used for gathering the following information. City County Census Tract (a) Percent of people over 25 years of age who at least graduated from high school	
	(b) Per capita income for population near the specified location	
	(c) Percent of minority population and percent of population by race within the specified location	
	(d) Percent of Linguistically Isolated Households by language within the specified location	
	(e) Languages commonly spoken in area by percentage	
	f) Community and/or Stakeholder Groups	
(	g) Historic public interest or involvement	

Section 6. Planned Public Outreach Activities	
(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?	
Yes No	
(b) If yes, do you intend at this time to provide public outreach other than what is required by re	ule?
Yes No	
If Yes, please describe.	
If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required. (c) Will you provide notice of this application in alternative languages?	
Yes No	
Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.	
If yes, how will you provide notice in alternative languages?	
Publish in alternative language newspaper	
Posted on Commissioner's Integrated Database Website	
Mailed by TCEQ's Office of the Chief Clerk	
Other (specify)	
(d) Is there an opportunity for some type of public meeting, including after notice?	
Yes No	
(e) If a public meeting is held, will a translator be provided if requested?	
Yes No	
(I) Hard copies of the application will be available at the following (check all that apply):	
Public Place (specify)	
Section 7. Voluntary Submittal	
For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.	
Will you provide notice of this application, including notice in alternative languages?	
What types of notice will be provided?	
Publish in alternative language newspaper	
Posted on Commissioner's Integrated Database Website	
Mailed by TCEQ's Office of the Chief Clerk	
Other (specify)	

Gefferson County Drainage District No. 7

PHIL KELLEY MANAGER

#### COMMISSIONERS

RICHARD BEAUMONT CHAIRMAN

LESTER CHAMPAGNE ALBERT MOSES, JR. JAMES GAMBLE, SR. MATTHEW E. VINCENT

February 14, 2023

Calvin Mathews Utilities Director City of Port Arthur 444 4<sup>th</sup> Street Port Arthur, Texas 77642-186

# RE: DD7 Letter of "No Objection" for City of Port Arthur Main (WQ 10364-001) and Port Acres (WQ 10364-002) Wastewater Treatment Facilities (WWTF) Discharge of Treated Wastewater into Jefferson County Drainage District No. 7 facilities

Mr. Mathews,

This letter is in response to the City's request to discharge a peak flow of approximately 31,250 gpm from the City of Port Arthur Main WWTF and a peak flow of approximately 11,028 gpm from the Port Arces WWTF into drainage facilities owned, operated, and maintained by Jefferson County Drainage District No. 7, Procter Street Lateral and North Port Acres Ditch B. The discharge locations currently act as alternates to the City's regular discharge stream, the Sabine-Neches Canal and Rhodair Gully.

After review, the District has no objection for the City of Port Arthur to continue to utilize District facilities as alternative discharge means at the existing locations described above in the City's request from its Main and Port Acres WWTF. Any future changes to existing peak flow rates that may impact District facilities must be reviewed and approved by the District. If you have questions, or require further information, please do not hesitate to call.

Very truly yours,

Garrett Boudoin Permit Administrator Jefferson County Drainage District No. 7

Enclosure

"Storm Water Management • Serving South Jefferson County" OFFICE LOCATION: 4749 Twin City Highway, Suite 300, Port Arthur Texas 77642 MAILING ADDRESS: P.O. Box 3244, Port Arthur Texas 77643-3244 PHONE (409) 985-4369 FAX (409) 983-7564 WEB SITE • http://www.dd7.org THRUMAN B. BARTIE, MAYOR CHARLOTTE MOSES, MAYOR PRO TEM

COUNCIL MEMBERS: CAL J. JONES, JR THOMAS KINLAW III INGRID HOLMES KENNETH MARKS DONALD R FRANK



RON BURTON CITY MANAGER

SHERRI BELLARD, TRMC CITY SECRETARY

VAL TIZENO CITY ATTORNEY

January 27, 2023

#### Certified Mail # 7017 3040 0001 1780 7507

Mr. Phil Kelly General Manager Jefferson County Drainage District No. 7 4401 - 9th Avenue Port Arthur, Texas 77642-1862

# Re: City of Port Arthur Main (WQ 10364-001) and Port Acres (WQ 10364-002) Wastewater Treatment Facilities (WWTF) Discharge of Treated Wastewater Effluent to Jefferson County Drainage District No. 7 (DD7)

Mr. Kelly:

The City of Port Arthur has two alternate discharge points whereby treated wastewater effluent from its Port Acres and Main WWTF is discharged to drainage ditches owned and operated by DD7.

The City is in the process of preliminary design and renewal of its Texas Commission on Environmental Quality (TCEQ) permits. As part of the permit application process, the TCEQ requires the applicant to provide an authorization letter from the flood control and drainage district to discharge treated effluent to a ditch owned by the district.

#### Main WWTF

The City of Port Arthur Main WWTF located near 6900 Proctor Street Extension is presently permitted by TCEQ to discharge treated effluent at a 2-hour peak flow rate of 31,250 gallons per minute (gpm).

The treated effluent is primarily discharged to the ship channel. However, during high tide, Treated effluent from the WWTF enters DD7's ditch located on the Proctor Street Extension (29.92477 N, 93.88566 W). The effluent flows northeast for approximately half a mile before entering Sabine-Neches Canal (Segment ID 0703). A map of the discharge point is attached for reference (*Attachment A*).

### Port Acres Wastewater Treatment Facility (WWTF)

Port Acres WWTF is located at 2901 FM 365 and is presently permitted by TCEQ to discharge treated effluent at a 2-hour peak flow rate of 11,028 gallons per minute (gpm).

The treated effluent is primarily discharged to Rhodair Gully and hence to Taylor Bayou. However, during high water levels, treated effluent from the WWTF enters a ditch owned and operated by Jefferson County Drainage District No. 7 (FM 365, (29.91444 N, 94.03879 W). A location of the discharge point is attached for reference (Attachment A).

Please consider this letter a formal request to discharge treated effluent from the Port Acres and Main WWTF's at peak flows of approximately 11,028 gpm or 24.5 cu. ft/sec. and 31,250 gpm or 69.62 cu. ft/sec of treated effluent to Jefferson County Drainage District No. 7. As previously mentioned, the discharges should occur only during high tide or high water levels of Rohdair Gully and ship channel. *An Example approval letter is enclosed for your reference (Attachment B)*.

Sincerely,

Floyd Niley Utilities Compliance Manager City of Port Arthur (409) 983-8226

Attachments

# ATTACHMENT A

# **Discharge** Points



# Google Maps Port Arthur's Main WWTP Discharge to DD7



Imagery ©2023 Maxar Technologies, Map data ©2023 20 ft

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https://www.google.com/maps/@29.9246862,-93.88547,125m/data=!3m1!1e3


# Google Maps 2941 FM 365

Port Arthur's Port Acres WWTP Discharge to DD7



https://www.google.com/maps/place/2901+FM+365,+Port+Arthur,+TX+77640/@29.9142334,-94.0386707,3a,75y,9.32h,79.18t/data=!3m6!1e1!3m4!1s4VkjiNIlpszC\_bUlbDf2rgi2e0!7116384!8i8192!4m6!... 1/2 Water Quality Applications Team

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NAD 1983 StatePlane Texas South Central FIPS 4204 Fe

### Affected Landowner Map Cross Referenced List

	JEFFERSON CO DRAINAGE DIST 7		CITY OF PORT ARTHUR
1	PO BOX 3244	5	PO BOX 1089
2	PORT ARTHUR TX 77643		PORT ARTHUR TX 77641
	ATLANTIC SHIPPERS OF TEXAS		VESSEL TRANSPORT LLC
2	6400 PROCTER ST EXT	6	1400 COTTAGE LN
	PORT ARTHUR TX 77642		BRIDGE CITY TX 77611
	ECOWATER INDUSTRIES LLC		MBLH PROPERTIES LTD
3	PO BOX 831986	7	PO BOX 691144
	RICHARDSON TX 75083		HOUSTON TX 77269
	KANSAS CITY SOUTHERN RAILROAD		
4	PO BOX 219335		
	KANSAS CITY MO 64121		





Photo 1. Current Outfall 001 discharge point, looking downstream.





Photo 2. Current Outfall 001 discharge point, looking upstream.





Photo 3. Current Outfall 001 discharge point.





Photo 4. Proposed location for Outfall 002 facing downstream.





Photo 5. Proposed location for Outfall 002 facing upstream.

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### Port Arthur Main WWTP – Structures 50 years or older on the property

### 1. Headworks



2. Primary Clarifiers



### 3. Trickling Filters





4. Final Clarifiers



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### 5. Sludge Thickener





### 6. Digesters





### **Treatment Process Description**

### **Existing Treatment Process:**

Main Outfall Lift Station: The influent raw wastewater is pumped from the offsite Main Outfall Lift Station to an influent splitter structure upstream of the headworks at the Main WWTP.

**Influent Splitter Box:** At the splitter box, flows up to 15 MGD are sent to the headworks structure and flows in excess of 15 MGD are sent to a stormwater treatment facility. During dry weather conditions, when the flows are less than 15 MGD, the influent wastewater first goes to the headworks structure. Flows in excess of 15 MGD overflows to a stormwater treatment facility.

**Headworks:** The existing headworks consists of two mechanical screens, a flow measurement unit and two detritor units for grit removal.

**Stormwater Treatment Facility:** Flows in excess of 15 MGD are treated at the stormwater treatment facility consisting of a mechanical screening unit, a grit removal unit and a 120-ft stormwater clarifier. The effluent from the stormwater clarifier is sent to the chlorination basin for disinfection where it blends with the secondary clarifier effluent from the final clarifiers.

**Primary Clarifiers:** A splitter box at the end of the headworks structure equally splits the headworks effluent to three primary clarifiers for removal of suspended solids. The effluent from the primary clarifiers flows to a trickling filter lift station.

**Trickling Filters:** The trickling filter lift station is divided into two wet wells, each wet well contains three vertical turbine pumps. Primary clarifier effluent enters the first wet well which feeds the first stage trickling filters. The first stage trickling filters (TF-A & TF-B) consist of two 103-ft diameter by 7-ft deep rock media filters. The effluent from the first stage trickling filters flows to the second wet well in the trickling filter lift station from where it is pumped to the second stage trickling filters. The second stage trickling filters (TF-AA & TF-BB) consist of two 103-ft diameter by 7-ft deep synthetic media high rate filters. Effluent from the second stage trickling filters can be diverted back to the trickling filter lift station for recirculation or sent to the solids contact aeration basins for further treatment.

**Aeration Basins:** Effluent from the trickling filters flows to the inlet channel of a screw pump structure that feeds the solids contact aeration basins. There are three screw pumps that lift the flows into an inlet channel that feeds the aeration basin. The solids contact aeration basin is a reinforced concrete



structure with three channels. The basin is designed for "plug-flow" using all three channels in series or "complete mix" using all three channels in parallel. The plant normally operates the basins in "complete mix" mode. In the aeration basin, flows from the screw pumps mix with Return Activated Sludge (RAS) from the secondary clarifiers to form a mixed liquor. The mixed liquor flows through the aeration basin which uses fine bubble diffused aeration for treatment. The effluent channel of the solids contact aeration basins splits the mixed liquor equally to three final clarifiers.

**Final Clarifiers:** After the aeration basin, the flows are split to the three final clarifiers. The final clarifiers separate the mixed liquor from the aeration basin into an effluent flow and a secondary sludge. The effluent flow from the clarifiers flows into the secondary effluent lift station which pumps the effluent to the chlorine contact basins where the effluent from the stormwater clarifier is combined.

**Chlorine Contact Basins:** The chlorine contact basin consists of a dual channel concrete basin with a single inlet channel and a combined effluent channel. The effluent flows from the main treatment units and the stormwater unit enter the single inlet channel through a 48-inch pipe at the center of the structure. A 48-inch heavy duty slide gate controls the flow into each of the parallel basins located at each end of the inlet channels. Following the chlorine contact chambers, the flow combines into a small basin for dechlorination before it flows over a weir for flow measurement. The final effluent is discharged to the outfall at the Sabine-Neches Canal.

**Gravity Thickener:** Sludge from the primary clarifiers and the waste activated sludge from the secondary clarifiers are pumped to the gravity thickener. The sludge is thickened and pumped into the aerobic digesters. The supernatant from the gravity thickener is sent to the headworks.

**Aerobic Digesters:** Thickened sludge from the thickener is aerated in the digesters to complete the aerobic digestion process. After digestion the sludge is pumped to the sludge dewatering facilities.

**Sludge Dewatering Building:** Sludge from the digesters is pumped to two centrifuge units. The dewatered sludge from the centrifuges are conveyed to dump trucks and hauled off to a land fill.

<u>Final Phase Treatment Process</u>: The final phase treatment process will be similar to existing phase treatment process with the following changes/rehabilitation of existing units as noted below.

**Main Outfall Lift Station (Rehabilitated):** Complete rehabilitation of the lift station with new pumps, piping, valves, and electrical and control system. The rehabilitated lift station will pump the raw wastewater to a new headworks structure at the Main WWTP.

**New Headworks:** The new headworks will consist of two mechanical screens and associated screenings washer-compactors. The screened influent wastewater will then flow to gravity-vortex i.e., stacked trya grit removal units. The settled grit slurry will then be pumped to grit washing/dewatering units. The washed and dewatered grit will be discharged to the dumpster and hauled off to a landfill.

**New Primary Clarifiers:** The effluent from the headworks will then flow to two new 126-ft diameter primary clarifiers. The settled primary sludge will be pumped by a new sludge pump station to the existing digesters. The primary effluent will then flow to a new trickling filter splitter box.

**Trickling Filters (Rehabilitated):** The new trickling filter splitter box will split the primary effluent evenly to the four trickling filters. The rotary distributor mechanism of all four trickling filters will be replaced. The rock media in the existing first stage trickling filters (TF-A and TF-B) will be replaced with high rate plastic media. The four trickling filters will be operate in parallel. The effluent from the trickling filters will be conveyed to a new Multipurpose Lift Station.

**New Multipurpose Lift Station:** The trickling filter effluent will be conveyed to the multipurpose lift station via a new 54" line. This lift station can pump the trickling filter effluent to three location: (1) Trickling filter splitter box for recirculation; (2) Aeration basins for further treatment during flows below 15 MGD; (3) New Filters for further treatment when flows exceed 15 MGD.

**Aeration Basins:** When the flows are less than 15 MGD, the trickling filter effluent from the multipurpose lift station will be pumped to the aeration basins where the return sludge the final clarifiers will be mixed. The mixed liquor flows are then split equally to three existing final clarifiers.

**Final Clarifiers (Rehabilitated):** The clarifier mechanism in the three final clarifiers will be replaced. New RAS pumps will be added. The effluent flow from the clarifiers flows into the secondary effluent lift station which will be rehabilitated with new pumps. The final clarifier effluent will then be pumped to the new filters or directly to the chlorine contact basins.

New Filters: A new cloth media filtration system will replace the existing stormwater clarifier. The final clarifier effluent from the final clarifier effluent pump station will be pumped to the new Filters. During wet weather when flows exceed 15 MGD, the multipurpose lift station will pump flows up to 15 MGD to the aeration basins and flows in excess of 15 MGD will be pumped directly to the new filters. The filtered effluent will then flow to the chlorine contact basins for disinfection.

**Chlorine Contact Basins (Rehabilitated):** The filtered effluent will be disinfected in the chlorine contact basins. The effluent weir in the chlorine contact basins will be raised to increase detention time. The disinfected effluent will then be dechlorinated prior to discharge. Under normal dry weather conditions, the final effluent is discharged to the outfall at the Sabine-Neches Canal (Outfall #1). During storm surge when the outfall in the Sabine-Neches Canal is submerged, a flap valve on the discharge pipe closes and the final effluent from the chlorine contact basin overflows through a secondary weir in to the adjacent storm water ditch (Outfall #2).

**Gravity Thickener:** Sludge from the primary clarifiers and the waste activated sludge from the secondary clarifiers will be pumped to the gravity thickener. The sludge is thickened and pumped into the aerobic digesters. The supernatant from the gravity thickener is sent to the plant drain lift station from where it will be pumped to the new headworks.

**Aerobic Digesters (Rehabilitated):** Thickened sludge from the thickener will pumped to the existing aerobic digesters which will be rehabilitated with new diffusers, pumps, and blowers. After digestion the digested sludge will be pumped to the sludge dewatering facilities.

**Sludge Dewatering Building (Rehabilitated):** Sludge from the digesters will be pumped to two new volute screw press units. The dewatered sludge from the volute screw press will be conveyed to dump trucks and hauled off to a land fill.

Phase	Treatment Unit Type	Number of Units	Overall Structure Dimensions (L x W x D) in Feet
	Headworks – Screen	2	16' x 4' x 5.6'
	Headworks – Grit	2	18' x 18' x 3.5'
	Stormwater Clarifier	1	130' (Dia) x 10' (SWD)
	Primary Clarifier	3	80' (Dia) x 9' (SWD)
	Trickling Filters	4	103' (Dia) x 11' (Depth)
	Aeration Basins	3	80' x 18' x 15.5'
Existing	Final Clarifiers A & B	2	80' (Dia) x 11' (SWD)
	Final Clarifier C	1	86' (Dia) x 11' (SWD)
	Chlorine Contact Basins	3	110' x 20'-8" x 8'-6"
	Gravity Thickener	1	45' (Dia) x 10' (SWD)
	Aerobic Digester – Primary	1	80' (Dia) x 21' (Depth)
	Aerobic Digester – Secondary	1	60' (Dia) x 21' (Depth)
	Dewatering - Centrifuge	ttering - Centrifuge         3         24' x 5' x 5'           works - Screen         2         22' x 4' x 10'           works - Grit         2         16' x 18' x 30'	
	Headworks – Screen	2	22' x 4' x 10'
	Headworks – Grit	2	16' x 18' x 30'
	Primary Clarifier	2	126' (Dia) x 14' (SWD)
	Trickling Filters	4	103' (Dia) x 11' (Depth)
	Multipurpose Lift Station	1	50'-4" x 29'-6" x 22'-6"
	Aeration Basins	3	80' x 18' x 15.5'
Final	Final Clarifiers A & B	2	80' (Dia) x 12' (SWD)
Final	Final Clarifier C	1	86'(Dia) x 12' (SWD)
	Filters	2	26' x 15' x 20'
	Chlorine Contact Basins	3	110' x 20'-8" x 10'
	Gravity Thickener	1	45' (Dia) x 10' (SWD)
	Aerobic Digester – Primary	1	80' (Dia) x 21' (Depth)
	Aerobic Digester – Secondary	1	60' (Dia) x 21' (Depth)
	Dewatering - Volute Screw Press	2	16-6" x 8' x 9'



This permit major amendment requests the addition of a second outfall (Outfall 002) to the Main WWTP's discharge permit.

The current permitted outfall (Outfall 001) is located in the Sabine-Neches Canal Tidal in Segment No. 0703 of the Neches-Trinity Coastal Basin. During normal dry weather conditions, the final effluent is easily discharged to Outfall 001 by gravity, but during wet weather and storm surge conditions the water level in the Sabine-Neches canal is too high for gravity discharge.

Hence, this permit amendment requests the addition of Outfall 002 located in the Jefferson County Drainage District No. 7 (DD7) drainage ditch to the west of the Main WWTP. The new outfall will be located at 29.924806, -93.885778. The authorization letter from DD7 for discharge of final effluent from the Main WWTP in to the DD7 ditch is included in Attachment AR-3.

This permit major amendment requests the addition of a second outfall (Outfall 002) to the Main WWTP's discharge permit. This application is <u>NOT</u> requesting an expansion of the volume of wastewater from the facility. Hence, the requirement to send certified letters to nearby facilities to inquire if they have capacity to accept or are willing to expand to accept volume of wastewater proposed in this application is NOT APPLICABLE.

	$\bigcirc$		$\bigcirc$
Freese and N	WASTEWATER TREATMENT PROCESS CALCULATIO	PLANT NS	City of Charles
Facility: Notes:	WWTP, City of Port Arthur, TX Calculate the capacity of treatment units based on	Project: Date:	PTR15234 3/26/2023
Scenario:	Reconstruction of WWTP to 9.2 MGD	By: QC:	MUE/LER
1. WASTEWATE	R AND PLANT CHARACTERIZATION		
<u>Flow rates</u> Annual a Peak 2-h	werage 9.2 MG nour Factor = 4.87 44.8 MG	D = 6,389 gp D = 31,114 gp	n n
Raw Wastewater BOD (to TSS TKN NH3-N TP	Concentrations         Avg.           al)         mg/L         108           mg/L         103         (Avg. + 1)           mg/L         29         (Avg. + 1)           mg/L         22         mg/L           mg/L         8         22	std. dev.) std. dev.)	
Effluent Requirer BOD TSS NH3-N TP Nitrate-N	ments mg/L 20 mg/L 20 mg/L 10 mg/L N/A mg/L N/A		
Select Treatment Prelimina Primary <sup>-</sup> Biologica Solids Tr 2. HEADWORKS	Processes from the list         Iny Treatment       Coarse Screening         Treatment       Conventional         I Treatment       Conv. Act. Sldg w/ Nitrifi         eatment       Thickening + Aerobic Dig	cation, @ Min. Temp > 15 C gestion + Dewatering	
<u>Descriptir</u> Continuo Manually Hydraulic	on: usly-cleaning fine screen Number of units Capacity per unit cleaned coarse screen (bypass) Number of units Capacity per unit ally-induced vortex grit removal system (HeadCell) Number of units Capacity per unit	2 22.4 MGD 1 44.8 MGD 2 22.4 MGD	
TCEQ De 1. Bypass flow aro 2. Velocity 3. Grit ren 4. Each g	sign Criteria (Chapter 217, Subchapter E) channel - sized to handle the two-hour peak flow of the facilit und any coarse screening device. y through the coarse screen bar rack shall be between one any noval system must include at least two units capable of operat it removal unit must include: (1) an emergency overflow to accept flow when grit removal un (2) a means of diverting flow to the emergency overflow	y, shall be provided to bypass d three feet per second ing at the peak flow nit is off-line; and	
A. <u>Bypass S</u> Flow throu Velocity re Area of sc Percent of Area of sc	<u>creen</u> igh screen: iquired by TCEQ: reen opening required: screen clogged due to blinding: reen required with blinding:	44.80 MGD 3.00 ft/s 23.10 ft <sup>2</sup> 50% *Assume 46.21 ft <sup>2</sup>	ed
Clear spac Individual Bar + clea	sing between bars: bar thickness: r spacing:	1.00 in 0.25 in 1.25 in	
Assume w Slope from	idth: i vertical:	8.00 ft 30.00 deg	
Width of cl Length of r	ear opening: nanual screen:	76.8 6.4 8 ft	
Required o	lepth of channel:	4 ft	

### 3. PRIMARY CLARIFICATION UNITS Enter data in grey cells

Description: Conventional

	TCEQ Design Criteria (Chapter 217, Subchapter E)			
	Max. surface overflow rate @ peak flow =	1800 gal/ft <sup>2</sup> -d		
	Max. surface overflow rate @ design flow =	1000 gal/ft <sup>2</sup> -d		
	Min. detention time @ peak flow =	0.9 hr.		
	Min. detention time @ design flow =	1.8 hr.		
	Min. side water depth =	10 ft.		
A	New Primary Clarifier A & B			
	Diameter =	126 ft.		
	Depth =	14 ft.		
	Surface area =	12,463 ft <sup>2</sup>		
	Volume =	174.477 ft <sup>3</sup>		
	Capacity of clarifier based on surface overflow rate =	22.43 MGD	(peak)	
		12.46 MGD	(design	)
	Capacity of clarifier based on detention time =	34.80 MGD	(peak)	
		17.40 MGD	(design	)
	No. of clarifiers =	2		
	Capacity of Clarifier A & B =	44 87 MGD	(neak)	
	and the second se	24.93 MGD	(design)	)
	Total Primary Clarification Capacity =	44.87 MGD	(peak)	
	Checks:			
	Surface overflow rate @ design flow =	369.1 gal/ft <sup>2</sup> -d	ок	
	Surface overflow rate @ peak flow =	1,797.5 gal/ft <sup>2</sup> -d	ок	
	Peak Flow per Clarifier =	22.40 MGD		124788 ft3/hr
	Detention Time @ peak flow =	1.4 hr	OK	
	Design Flow per Clarifier =	4.60 MGD		25624 ft <sup>3</sup> /hr
	Detention time @ design flow =	6.8 hr	OK	
		the second se		

Raw	/ Wastewater Design Parameters:				Raw	Wastev
٠	Average flow rate =	9.2	MGD			
٠	Average BOD concentration =	75	mg/L			
٠	Average TSS concentration =	58	mg/L		•	BOD
•	Average TKN concentration =	22	mg/L		•	TSS
•	Peak month BOD/TSS factor =	44	%		•	TKN
•	Peak month TKN factor =	32	%			
	nary clarifier Performance Assump	ptions:			Prim	ary Clar
٠	BOD removal efficiency =	35	%		•	BOD
•	TSS removal efficiency =	65	%		•	TKN
•	TKN removal efficiency =	10	%			
Tric	kling Filter Design/Performance A	ssumptio	ns:		Trick	ding Filt
•	Single-stage, parallel operation				•	Require
٠	No nitrification in TF's				•	Media
•	Peak month BOD removal =	70	%		•	Media
•	Organic loading rate =	40	lb/kft3-day		•	BOD re
٠	TSS yield / BOD oxidized =	0.5	g/g << h	umus, includes TSS from PE	•	Humus
Acti	vated Sludge Design/Performance	e Assump	tions:		Activ	rated Sli
٠	BOD oxidation & partial nitrificati	ion			•	BOD to
٠	Negligible stabilization of humus				•	BOD ox
٠	Negligible denitrification				•	Hetero
•	Design BOD SRT =	4.5	days		٠	TKN to
•	Maximum MLSS =	3500	mg/L		•	TKN ox
•	Effluent BOD =	10	mg/L		٠	Nitrifie
•	Effluent NH3-N =	e	mg/L		•	Waste
•	TKN to biomass/effluent =	m	mg/L		٠	Mixed
•	TSS yield / BOD removed =	0.4	g/g		٠	Minimu
•	ISS yield / N oxidized =	0.2	B/B		•	Total A
•	Aeration SWD =	18	ft		•	Surf are
•	AB length-width ratio =	4			•	AD which

### vater Loadings

Port Arthur WWTP TF/AS Mass Balance & Conceptual Design

		Avera	ge Flow	Desig	n Flow
		mg/L	lbs/day	mg/L	lbs/day
	BOD	75	5,755	108	8,287
-	TSS	58	4,450	103	6,408
2	TKN	22	1,688	29	2,225

## rifier Effluent - Peak Month

lbs/day	lbs/day	
5,386	2,003	
BOD	TKN	

### er Design

135	6 337
Required media volume =	Media footorint of 103' & TF =
•	

1000 cu ft

sq ft

¥

JUDIE OF TO 2 10 10 10 10 10 10 10 10 10 10 10 10 10	ight w/ four TF's = 4.0
rootprint	height w/
leala	fedia

- emoval =
  - production =

heterotrophs & PE fixed solids

lb/day lb/day

3,770 1,885

### udge Design

- effluent =
- idized in A/S =

use avg flow PE - TF - effluent

767 849

use avg flow

lb/day lb/day lb/day lb/day lb/day lb/day lb/day lb/day

339 230

- troph production =
- biomass/effluent =
  - idized in A/S =
    - r production =

      - sludge =
- iquor solids inventory =
  - um aeration volume =
    - B surface area =

sq ft sq ft

3,004 1,001

# #

16 63

ВМ

0.40

11,806

1,995 399 2,624

- ea w/ basins: 3
  - AB width =
    - AB length =

### 0.41 MG Volume of Exisitn Aeration Basins =

humus + WAS (BOD & nitr'n)

### 5. ACTIVATED SLUDGE BASIN

Enter data in grey cells

Description:

Conv. Act. Sldg w/ Nitrification, @ Min. Temp > 15 C

- A. <u>TCEQ Design Criteria (Chapter 217, Subchapter F)</u> See "TF-AS" tab for process calculations on the volume of aeration basin required
- B. Aeration Basins

Existing Aeration Basins

CONTRACTOR AND AND AND AND AND AND	00 11
3	
12.67 ft.	18 fi
18,245 ft <sup>3</sup>	and the second
54,734 ft <sup>3</sup>	
409,413 gallons	
404,466 gallons	(From "TF-AS" tab)
	3 12.67 18,245 ft <sup>3</sup> 54,734 ft <sup>3</sup> 409,413 gallons 404,466 gallons

### C. Aeration Equipment Sizing

Notes: The aeration system should be designed so that the maximum design air requirements can be met with the largest single blower out of service.

O2R for the new aeration basins =

1,390 lb O2/d (From TF-AS Tab)

80 ft

Per Chapter 217.155 "Aeration Equipment Sizing" Equation F.3

 $FTE = (T_{*}) \times (\frac{WOTE}{CWOTE}) \times 1.024^{T\cdot 20} \times (\frac{C_{f}}{C_{t}})$ 

 $\begin{array}{l} \underline{Where:} \\ T_e = Test Efficiency \\ FTE = Field Transfer Efficiency (decimal) \\ WOTE = Wastewater Oxygen Transfer Efficiency (decimal) \\ CWOTE = Clean Water Oxygen Transfer Efficiency (decimal) \\ T = Temperature (degrees C) \\ C_f = Oxygen Saturation in Field (Includes temperature, dissolved solids, pressure, etc.) \\ C_t = Oxygen Saturation in Test Conditions \\ \end{array}$ 

Assume water temperature of 20 deg C.; simplify Equation F.3 above:

WOTE = FTE \* CWOTE

Clean water oxygen transfer efficiency =	
Correction factor for fine bubble diffusers =	
Therefore, WOTE =	

	0.26
Reality	0.45
	0.117

Per Chapter 217.155 "Aeration Equipment Sizing" Equation F.4

 $RAF = \frac{(PPD BOD_3) \times (O_2/lb BOD_3)}{WOTE \times 0.23 \times 0.075 \times 1440}$ 

Where:		
RAF =	Required Airflowrate (standard cubic feet per minute (SC	FM))
PPD BOD <sub>1</sub> =	Influent Organic Load in Pounds per Day	
0.23 =	lb 0 <sub>2</sub> /lb air @ 20° C	
1440 =	minutes/day	
0.075 =	Ib air/cubic foot (cf)	
WOTE =	Wastewater Oxygen Transfer Efficiency (decimal)	
	If the design inlet temperature is above 24° C, the specific adjusted to the specific weight at the intake temperature.	: weight of air must be
Required air	flow rate (RAF) =	478 SCFM
RAF Correc	tion Factor for submergence =	1.00

Corrected Required Airflow Rate =	478	SCFM
Conected Required Annow Rate -	110	001 10

<u>Blower HP Calculation</u> Static pressure = Friction = Blower discharge pressure =	5.5 psi 1.5 psi 7.0 psi	(assumed)
Efficiency =	70%	(assumed)
Total Blower HP =	21 HP	
<u>Blowers at the Plant:</u> No. of Blowers = Capacity of each Blower =	2 +1 (standby) 239 SCFM	
Aeration Requirement =		20 SCFM/1000 ft <sup>3</sup>
Required air flow rate (RAF) =	1	,095 SCFM
RAF Correction Factor for submergence =		1.00
Corrected Required Airflow Rate =		1,095 SCFM
<u>Blower HP Calculation</u> Static pressure = Friction = Blower discharge pressure =	5.5 psi 1.5 psi 7.0 psi	(assumed)
Efficiency =	70%	(assumed)
Total Blower HP =	48 HP	
<u>Blowers at the Plant:</u> No. of Blowers = Capacity of each Blower =	2+1 (standby) 547 SCFM	

### 6. SECONDARY CLARIFICATION UNITS

Enter data in grey cells

### Description:

Conv. Act. Sldg w/ Nitrification, @ Min. Temp > 15 C

### A. TCEQ Design Criteria (Chapter 217, Subchapter F)

Max. surface overflow rate @ peak flow = Min. detention time @ peak flow = Min. side water depth =

B. <u>Rehabilitate Existing Clarifiers</u> <u>Final Clarifier A & B (existing)</u> Diameter = Depth = Surface area = Volume = Peak capacity of clarifier (based on surface overflow rate) = Peak capacity of clarifier (based on detention time) =

Number of clarifiers = Clarifier Capacity =

Total Combined capacity =

Pierretes =	85 ()
Diameter =	00 11.
Depth =	<b>11</b> ft.
Surface area =	5,672 ft <sup>2</sup>
Volume =	62,388 ft <sup>3</sup>
Peak capacity of clarifier (based on surface overflow rate) =	6.81 MGD
Peak capacity of clarifier (based on detention time) =	6.22 MGD
Number of clarifiers =	1
Clarifier Capacity =	6.2 MGD

17.2	MGD
	1

1200 gal/ft<sup>2</sup>-d 1.8 hr. 10 ft.

80 ft.

11 ft. 5,024 ft<sup>2</sup>

> 6.03 MGD 5.51 MGD 2

11.0 MGD

55,264 ft<sup>3</sup>

### 7. SLUDGE PUMPING UNITS

Enter data in grey cells

Description: Conv. Act. Sldg w/ Nitrification, @ Min. Temp > 15 C

Minimum secondary clarifier underflow rate per clarifier=

### A. WAS Pump Sizing

	Design	
Select Mixed Liquor VS/TS Ratio =	0.8	
Select solids concentration in WAS =	8,000	mg/L
	Peak Month	
Secondary solids produced =	4,219	lb. TS/d
	176	lb. TS/hr
Wet secondary sludge produced =	63,238	gal/d
	44	GPM
B. PAS Pump Sizing		
B. KAS Fullip Sizing		

Final Clarifier A & B: 80' Diameter 1,004,800 gal/d Secondary clarifier underflow per clarifier= Flow rate per RAS pump = 700 GPM 30 min/hr Min. pump operation time = 1,400 GPM Required pump capacity = No. of RAS Pumps = 3 (2 duty + 1 standby) Final Clarifier C: 85' Diameter Secondary clarifier underflow per clarifier= 1,134,325 gal/d Flow rate per RAS pump = 800 GPM 30 min/hr Min. pump operation time = Required pump capacity = 1,600 GPM No. of RAS pumps = 2 (1 duty + 1 standby) 3,000 GPM Max. RAS pumping (FC A or B + FC C) = Total Required RAS pumping capacity = 2,200 GPM

Notes: A conservative design would be a single dedicated RAS pump for each clarifier with one standby pump for every pair of clarifiers.

### C. Primary Clarifier Sludge

Select % TSS removed in Primary Clarifier = Select % solids in primary sludge =

Total Dry Primary solids produced =

Total Wet primary sludge produced =

VS/TS Ratio = Volatile solids in primary sludge =

Total Sludge Flow to the Thickener =

65% (Typical 60%-65%) 2.0% (Typical 1.5% - 2%) 20,000 mg/L

	Peak Month
TSS Ib/d	5,137
lb/hr	214
gal/d	30,797
GPM	21
	0.80
VS lb/d	4 110

94,035 gal/day if mixing primary and secondar 63,238 gal/day

if only WAS to thickener

200 gal/d.ft2

### 8. SOLIDS HANDLING

Enter data in grey cells Description: Thickening + Aerobic Digestion + Dewatering TCEQ Regulations 217.248. Sludge Thickening (1) Capacity: The maximum monthly sludge production rate must be used as the basis for sludge thickening system sizing and design (2) Flexibility (A) A sludge thickening system must have a bypass to the digester. (B) A wastewater treatment facility with a design flow greater than 1.0 million gallons per day must have: (i) at least two sludge thickening units; (ii) an alternate means of sludge thickening; or (iii) an alternate sludge disposal method. (2) Design Basis (C) The mechanical gravity thickener surface loading rate must be at least 400 gallons per day per square foot, but not more than 800 gallons per day per square foot. (D) The minimum side water depth for a mechanical gravity thickener is 10 feet. (E) A circular mechanical gravity thickener must have a minimum bottom slope of 1.5 inches per foot. (F) The peripheral velocity of a scraper must be at least 15 feet per minute but no more than 20 feet per minute. A. Gravity Thickener WAS only Mixed (co-thickened) 1 units Number of Units = 1 units Peak Month sludge flow to the thickener = 94,035 gal/d 63,238 gal/d 45 ft. Diameter of the gravity thickener = 45 ft. 40 gal/d/ft<sup>2</sup> Calculated Surface Loading Rate = 59 gal/d/ft<sup>2</sup> Side Water Depth = 10.00 ft. 10.00 ft. 4,219 lb TS/d Peak Month Total Solids to the Thickener = 9.356 lb TS/d VS/TS Ratio = 0.8 0.8 Peak Month Volatile Solids to the Thickener = 7,485 lb VS/d 3.375 lb VS/d Peak Month Sludge to Thickener = 94,035 gal/d 63,238 gal/d 65 gal/min 44 gal/min 3.00 % Assume Solids Concentration after Thickening = 3.00 % Peak Month Peak Month 37,395 gal/d 16,863 gal/d Thickened secondary sludge produced = (assumes 100% capture) 26 gal/min 12 gal/min B. Aerobic Digester - TCEQ Design Criteria (Chapter 217 Subchapter J) 20 deg C Minimum Temperature = Required Minimum Detention Time = 40 days 100 lb./1000 ft<sup>3</sup>/day Min. Volatile Solids Loading Rate = 200 lb./1000 ft3/day Max. Volatile Solids Loading Rate = Aeration Requirement = 20 SCFM/1000 ft<sup>3</sup> If Mechanical Aeration is used = 0.5 HP/1000 ft<sup>3</sup> (Page 25-163 on MOP 8) Volume Required for Aerobic Digestion  $Q_i \times (X_i + YS_i)$ Reaction Rate Value Kd for an Aerobic Digester

 $W = \frac{Q_i \times (X_i + IS_i)}{X \times \left( (K_d \times P_\nu) + \left(\frac{1}{SRT}\right) \right)}$ 

Where:

V = Volume of the aerobic digester [L(cu ft.)]

- Q1=Digester influent (WAS) flowrate [L/d(cu ft./d)]
- $X_t = \text{Digester influent (WAS) suspended solids (mg/L)}$
- Y = Portion of the influent BOD consisting of raw primary solids (%)
- St = Influent digester BOD5 (mg/L)
- X = Digester suspended solids (mg/L)
- $K_d$  = Reaction rate constant (d&1)
- $P_v$  = Volatile fraction of digester suspended solids (%)
- SRT = Solids retention time (days)



FIGURE 25.62 Experimentally determined reaction rate (K<sub>4</sub>) versus aerobic digester liquid temperature. The value of K<sub>4</sub> depends on solids characteristics and digester operating conditions (e.g., pH, TSS, and oxygen level) (U.S. EPA, 1978).

Calculate the volume required for aerobic digesters for different flows



### 9. DISINFECTION

Enter data in grey cells

Description: Chlorine Contact Basin

### A. TCEQ Design Criteria (Chapter 217.281, Subchapter N)

- (b) Chlorine Contact Basin
- (1) A chlorine contact basin must provide a minimum chlorine contact time of 20 minutes at peak flow.
- (c) Dechlorination Contact Time
- (2) A Dechlorination system must prevent short circuiting and provide a minimum contact time of 20 seconds at the peak flow.

### Chlorine Contact Basin

### Chlorine Contact Basin

Number of Basins =

and a		2	
	_		- 2

11 ft

64 ft

11 ft

7,297 ft<sup>3</sup>

110 ft

3

10 ft

11 ft

315,741 gallons

631,483 gallons

3<u>1,574 gal/min</u>

614 lb/d

15 days

9,210 lb

45 MGD

34,914 ft<sup>3</sup>

1

Minimum chlorine contact time =

Influent Channel:

Length = Number of channels = Width of channels = Depth =

Volume =

Chlorine contact basins: Length = Number of channels = Width of channels = Depth =

Volume =

Volume per basin =

Total Volume =

Total Capacity based on detention time =

### **Chlorine Feed System**

Assume dosage @ Avg. Flow =	8 mg/L
Average demand =	614 lb/day
Max demand @ 2-hr peak flow =	2,989 lb/day

### CHLORINE GAS STORAGE

### Storage to be sized for Daily Average Flow

Gas Chlorine volume required (Average) =

Min. no. of days of storage needed =

Min. Storage volume required =

Gas Chlorine Storage Unit	Unit Weight (Ib)	No. of ton cylinders for 15 day storage	Actual Storage Time Available (days)
Cylinder Ton	2000	5	16

Initial Design Flow = 9.2 MGD Influent BOD Concentration = 108 mg/L Aerobic Digester Volume = 1,057,460 gallons Aeration Basin MLSS: 2,500 to 4,000 mg/L

Solids Generated	Unit	100% flow	75% flow	50% flow	25% flow
Influent BOD5	lb/day	8,287	6,215	4,143	2,072
Solids Loading to digester	lb/day	9,356	7,017	4,678	2,339
Volatile Solids Reduction in	%	40%	38%	38%	38%
VS/TS Ratio		0.8	0.8	0.8	0.8
Solids After Digestion	lb/day	6,362	4,884	3,256	1,628
Dewatered Solids %	%	20%	20%	20%	20%
Wet Sludge for Disposal	gallons/day	3,814	2,928	1,952	976
Wet Sludge for Disposal	cubic yard/day	19	14	10	5
Dumpster Size	Cubic yard	40	30	30	30
Days Between Removal of Sludge	days	2	2	3	6

### **Sludge Production and Removal**

Sludge will be wasted from the RAS flow stream to the gravity thickeners to thicken to 2% solids and the thickened sludge is then sent to the aerobic digesters. The thickened sludge is stabilized in the digester. The digested sludge will then be pumped to the volute screw presses for dewatering. The digested and dewatered sludge will be transported by City of Port Arthur to a Landfill (Permit #1815A).
# Laboratory Analysis Report

Total Number of Pages: 42

Job ID : 22092226



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

## Client Project Name : Main Plant - 6200 Proctor Street Extension

Report To :	Client Name:	Port Arthur, City of	P.O.#.: 22207905
	Attn:	Floyd Riley	Sample Collected By: Dharmendra
	Client Address:	444 4th Street, Annex Building, 1st Floor	Date Collected: 09/22/22
	City, State, Zip:	Port Arthur, Texas, 77640	

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

Client Sample ID	Matrix	A&B Sample ID
Influent	Water	22092226.01
Effluent	Water	22092226.02

Ashley Arnett Released By: Title: Project Manager Date: 10/25/2022

RECEIVED APR 1/4 2023 Water Quality Applications Team



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

## LABORA, JRY TERM AND QUALIFIER DEFINITION REPORT

Job ID: 22092226

Date: 10/25/2022

#### General Term Definition

LA

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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	т	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above N	/IDL	
Qualifier Defir	nition		
D1	Sample required dilution due to matrix effects.		
L2	Associated LCS and/or LCSD recovery is below	w acceptance limits for	flagged analyte. Bias may be low.
M1	Matrix Spike and/or Matrix Spike Duplicate rec randomly selected as QC for this batch was no samples."	overy is above laborator t part of your project. T	y control limits due to matrix interference. "The sample herefore, this sample matrix is not applicable to your project
M2	Matrix Spike and/or Matrix Spike Duplicate rec randomly selected as QC for this batch was no samples."	overy is below laborator t part of your project. T	y control limits due to matrix interference."The sample herefore, this sample matrix is not applicable to your project
M6	Not calculated. Sample concentration high, mo	ore than 4X spike conce	ntration. Control limits do not apply.
M9	Matrix Spike and/or Matrix Spike Duplicate reco	overy is below laborator	y control limits.
S6	Surrogate recovery is outside control limits due	to matrix effects.	

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Job ID: 22092226

Date 10/25/2022

Olivert N-	De l'All Oli 1	and the local data	the second s		A COLUMN AND THE OWNER		The second second			
Client Name:	Port Arthur, City of							A	ttn: Floyd Riley	
Project Name:	Main Plant - 6200 Pro	ctor Street I	Extension							
Client Sample I Date Collected Time Collected Other Informat	D: Influent 09/22/22 11:15 ion:					Job Samp Sample M % Moistu	ole ID: 1atrix Ire	220922 Water	26.01	
Fest Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 300.0	Anions									
	Fluoride	0.87909	mg/L	1.00	0.018	0.1			09/23/22 08:52	SKM
	Nitrate-N	<0.007	mg/L	1.00	0.007	0.1			09/23/22 08:52	SKM
M 4500CN-CG	Cyanide, Amenable Ultra Low	,								
	Cyanide, Amenable	<0.001	mg/L	1	0.001	0.002			09/28/22 15:00	SKC
	Cyanide, Available	< 0.001	mg/L	1	0.001	0.002			09/28/22 15:00	SKC
M 4500CNC/E	Cvanide, Total Ultra Low									
	Cyanide	0.0036	mg/L	1	0.001	0.002			09/28/22 15:00	SKC
M 3500Cr B										
	Chromium, Hexavalent	< 0.0005	mg/L	1	0.0005	0.00100			09/22/22 16:50	RP
M 3500Cr B			100							
	Chromium, Trivalent <sup>2</sup>	< 0.001	ma/L	1		0.00100			09/27/22 11:15	RP
DA 420 4	Phenolics (Total Phenols)		5,-							STERE T
	Phenols	0.0566	ma/L	1	0.00449	0.01			09/27/22 15:28	SKC
PA 1631F	CVAES									
TA IOJIL	Mercury	16.5	na/l	1	0.0419	0.25			09/28/22 15:37	BRR
DV 200 8	Metals by ICP/MS								05/20/22 15:57	Dirit
A 200.0	Aluminum	0 11810	ma/l	1	0.001	0.00100			09/26/22 17:38	RDD
	Antimony	0.00084	mg/L	1	0.001	0.00100			09/26/22 17:38	RDD
	Arsenic	0.00230	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Barium	0.05126	ma/L	1	0.0004	0.00050			09/26/22 17:38	BRR
	Beryllium	< 0.0001	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Cadmium	< 0.0001	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Chromium	0.00075	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Copper	0.00943	mg/L	1	0.0004	0.00050			09/26/22 17:38	BRR
	Lead	0.00105	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Nickel	0.00191	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Selenium	<0.0007	mg/L	1	0.0007	0.00100			09/28/22 21:59	BRR
	Silver	< 0.0005	mg/L	1	0.0005	0.00050			09/26/22 17:38	BRR
	Thallium	<0.0001	mg/L	1	0.0001	0.00025			09/26/22 17:38	BRR
	Zinc	0.03781	mg/L	1	0.0011	0.002			09/26/22 17:38	BRR
A 608.3	Polychlorinated Biphenyls									
	Aroclor 1016	<0.0146	ug/L	1.00	0.0146	0.05			09/29/22 02:26	PS
	Aroclor 1221	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:26	PS
	Aroclor 1232	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:26	PS

Job ID: 22092226

Date 10/25/2022

Client Name: Project Name:	Port Arthur, City of Main Plant - 6200 Pro	octor Street E	xtension					P	Attn: Floyd Riley	
Client Sample Date Collected Time Collected Other Informa	ID: Influent l: 09/22/22 l: 11:15 tion:					Job Sa Sample % Moi	mple ID: e Matrix sture	220922 Water	226.01	
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analys
EPA 608.3	Polychlorinated Biphenyls					1942				
	Aroclor 1242	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:26	PS
	Aroclor 1248	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:26	PS
	Aroclor 1254	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:26	PS
	Aroclor 1260	< 0.01005	ug/L	1.00	0.01005	0.05			09/29/22 02:26	PS
	Total PCBs	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:26	PS
	Decachlorobiphenyl(surr)	18	%	1.00		35-129		S6	09/29/22 02:26	PS
	Tetrachloro-m-xylene(surr)	57	%	1.00		27-127			09/29/22 02:26	PS
PA 608.3	Organochlorine Pesticides									
	Dicofol <sup>2</sup>	<0.5	ug/L	10.00		0.5		D1	09/29/22 14:54	KMN
	4,4-DDD	< 0.0600	ug/L	10.00	0.0600	0.1		D1	09/29/22 14:54	KMN
	4,4-DDE	< 0.020	ug/L	10.00	0.020	0.1		D1	09/29/22 14:54	KMN
	4,4-DDT	< 0.040	ug/L	10.00	0.040	0.1		D1	09/29/22 14:54	KMN
	a-BHC	< 0.0800	ug/L	10.00	0.0800	0.1		D1	09/29/22 14:54	KMN
	Aldrin	< 0.030	ug/L	10.00	0.030	0.1		D1	09/29/22 14:54	KMN
	b-BHC	< 0.100	ug/L	10.00	0.100	0.1		D1	09/29/22 14:54	KMN
	Chlordane	<1	ug/L	10.00		1		D1	09/29/22 14:54	KMN
	d-BHC	< 0.040	ug/L	10.00	0.040	0.1		D1	09/29/22 14:54	KMN
	Dieldrin	< 0.030	ug/L	10.00	0.030	0.1		D1	09/29/22 14:54	KMN
	Endosulfan I	< 0.030	ug/L	10.00	0.030	0.1		D1	09/29/22 14:54	KMN
	Endosulfan II	< 0.040	ug/L	10.00	0.040	0.1		D1	09/29/22 14:54	KMN
	Endosulfan sulfate	< 0.030	ug/L	10.00	0.030	0.1		D1	09/29/22 14:54	KMN
	Endrin	< 0.040	ug/L	10.00	0.040	0.1		D1	09/29/22 14:54	KMN
	Endrin aldehyde	< 0.0800	ug/L	10.00	0.0800	0.1		D1	09/29/22 14:54	KMN
	g-BHC	< 0.0500	ug/L	10.00	0.0500	0.1		D1	09/29/22 14:54	KMN
	Heptachlor	< 0.0500	ug/L	10.00	0.0500	0.1		D1	09/29/22 14:54	KMN
	Heptachlor epoxide	< 0.020	ug/L	10.00	0.020	0.1		D1	09/29/22 14:54	KMN
	Methoxychlor	< 0.0500	ug/L	10.00	0.0500	0.1		D1	09/29/22 14:54	KMN
	Mirex <sup>2</sup>	<0.1	ug/L	10.00		0.1		D1	09/29/22 14:54	KMN
	Toxaphene	<1	ug/L	10.00	1.000	1		D1	09/29/22 14:54	KMN
	Tetrachloro-m-xylene(surr)	116	%	1.00		24-127			09/29/22 14:54	KMN
	Decachlorobiphenyl(surr)	6.50	%	1.00		34-120		S6	09/29/22 14:54	KMN
A 614	Organophosphorus Pesticides									
	Chlorpyrifos <sup>2</sup>	< 0.04	ua/L	1.00	0.04	0.1			09/28/22 20.31	PS
	Demeton <sup>2</sup>	< 0.04	ua/l	1.00	0.04	0.1			09/28/22 20:31	PS
	Diazinon <sup>2</sup>	<0.04	ug/l	1.00	0.04	0.1			09/28/22 20.31	PS

Job ID : 22092226

Date 10/25/2022

Client Name: Project Name:	Port Arthur, City of Main Plant - 6200 Pro	ctor Street	Extension					Attn: Floyd Riley	
Client Sample Date Collectec Time Collectec Other Informa	ID: Influent 1: 09/22/22 1: 11:15 tion:					Job Sample ID:22092226.01Sample MatrixWater% Moisture			
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit Q	Date Time	Analyst
EPA 614	Organophosphorus Pesticide	s					4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1		122.8314
	Guthion <sup>2</sup>	<0.04	ug/L	1.00	0.04	0.1		09/28/22 20:31	PS
	Malathion <sup>2</sup>	< 0.05	ug/L	1.00	0.05	0.1		09/28/22 20:31	PS
	Parathion <sup>2</sup>	<0.06	ug/L	1.00	0.06	0.1		09/28/22 20:31	PS
	4-Chloro-3-Nitro-Benzene (surr)	17	%	1.00		15-109		09/28/22 20:31	PS
EPA 615	Chlorinated Herbicides								
	2,4,5-TP	<0.19	ug/L	1.00	0.19	0.19		09/26/22 21:40	PS
	2,4-D	<0.19	ug/L	1.00	0.19	0.188		09/26/22 21:40	PS
	DCPAA(surr)	110	%	1.00		38-120		09/26/22 21:40	PS
EPA 624.1	Volatile Organic Compounds								
	1,1,1-Trichloroethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,1,2,2-Tetrachloroethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,1,2-Trichloroethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,1-Dichloroethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,1-Dichloroethylene	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,2-Dibromoethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,2-Dichloroethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	1,2-Dichloropropane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	2-chloroethylvinyl Ether	<0.006	mg/L	1.00	0.006	0.01		09/23/22 13:43	RT
	Acrolein	<0.006	mg/L	1.00	0.006	0.01		09/23/22 13:43	RT
	Acrylonitrile	<0.003	mg/L	1.00	0.003	0.005		09/23/22 13:43	RT
	Benzene	<0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Bromochloromethane <sup>2</sup>	<0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Bromodichloromethane	<0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Bromoform	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Bromomethane	< 0.002	mg/L	1.00	0.002	0.005		09/23/22 13:43	RT
	Carbon tetrachloride	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Chlorobenzene	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Chloroethane	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Chloroform	< 0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	Chloromethane	<0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	cis-1,3-Dichloropropene	<0.001	mg/L	1	0.001	0.005		09/23/22 13:43	RT
	Dibromochloromethane	<0.001	mg/L	1	0.001	0.005		09/23/22 13:43	RT
	Ethylbenzene	<0.001	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT
	MEK	0.00661	mg/L	1.00	0.001	0.005		09/23/22 13:43	RT



Job ID: 22092226

Date 10/25/2022

Client Name: Project Name:	Port Arthur, City of Main Plant - 6200 Pro	ctor Street E	xtension					At	n: Floyd Riley	
Client Sample Date Collectec Time Collectec Other Informa	ID: Influent l: 09/22/22 l: 11:15 tion:					Job Sa Sample % Moi	mple ID: e Matrix sture	2209222 Water	6.01	
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 624.1	Volatile Organic Compounds									a starter
	Methylene chloride	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:43	RT
	Tetrachloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:43	RT
	Toluene	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:43	RT
	trans-1,2-Dichloroethylene	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:43	RT
	trans-1,3-Dichloropropene	<0.001	mg/L	1	0.001	0.005			09/23/22 13:43	RT
	Trichloroethylene	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:43	RT
	TTHMs	<0.002	mg/L	1.00	0.002	0.02			09/23/22 13:43	RT
	Vinyl Chloride	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:43	RT
	Dibromofluoromethane(surr)	100	%	1.00		70-130			09/23/22 13:43	RT
	1,2-Dichloroethane-d4(surr)	110	%	1.00		70-130			09/23/22 13:43	RT
	Toluene-d8(surr)	99.6	%	1.00		70-130			09/23/22 13:43	RT
	p-Bromofluorobenzene(surr)	102	%	1.00		70-130			09/23/22 13:43	RT
EPA 625.1										
	1,2,4,5-Tetrachlorobenzene	<0.005	mg/L	1.00		0.005			09/25/22 22:54	MS
	1,2,4-Trichlorobenzene	<0.00053	mg/L	1.00	0.00053	0.005			09/25/22 22:54	MS
	1,2-Dichlorobenzene	<0.00041	mg/L	1.00	0.00041	0.005			09/25/22 22:54	MS
	1,2-Diphenylhydrazine as Azobenzene	<0.00022	mg/L	1.00	0.00022	0.005			09/25/22 22:54	MS
	1,3-Dichlorobenzene	<0.00053	mg/L	1.00	0.00053	0.005			09/25/22 22:54	MS
	1,4-Dichlorobenzene	<0.00025	mg/L	1.00	0.00025	0.005			09/25/22 22:54	MS
	2,4,5-Trichlorophenol	<0.00085	mg/L	1.00	0.00085	0.005			09/25/22 22:54	MS
	2,4,6-Trichlorophenol	<0.00079	mg/L	1.00	0.00079	0.005			09/25/22 22:54	MS
	2,4-Dichlorophenol	<0.00069	mg/L	1.00	0.00069	0.005			09/25/22 22:54	MS
	2,4-Dimethylphenol	< 0.00053	mg/L	1.00	0.00053	0.005			09/25/22 22:54	MS
	2,4-Dinitrophenol	< 0.00141	mg/L	1.00	0.00141	0.005			09/25/22 22:54	MS
	2,4-Dinitrotoluene	<0.00097	mg/L	1.00	0.00097	0.005			09/25/22 22:54	MS
	2,6-Dinitrotoluene	< 0.00122	mg/L	1.00	0.00122	0.005			09/25/22 22:54	MS
	2-Chloronaphthalene	<0.00028	mg/L	1.00	0.00028	0.005			09/25/22 22:54	MS
	2-Chlorophenol	< 0.0005	mg/L	1.00	0.00050	0.005			09/25/22 22:54	MS
	2-Nitrophenol	<0.00088	mg/L	1.00	0.00088	0.005			09/25/22 22:54	MS
	3,3-Dichlorobenzidine	<0.00088	mg/L	1.00	0.00088	0.005			09/25/22 22:54	MS
	4,6-Dinitro-2-methylphenol	<0.00066	mg/L	1.00	0.00066	0.005			09/25/22 22:54	MS
	4-Bromophenyl phenyl ether	< 0.00041	mg/L	1.00	0.00041	0.005			09/25/22 22:54	MS
	4-Chloro-3-methylphenol	< 0.00053	mg/L	1.00	0.00053	0.005			09/25/22 22:54	MS
	4-Chlorophenyl phenyl ether	< 0.00066	mg/L	1.00	0.00066	0.005			09/25/22 22:54	MS

Job ID: 22092226

Date 10/25/2022

Client Name:	Port Arthur, City of						A	ttn: Floyd Riley	5.340.00
Project Name:	Main Plant - 6200 Pro	octor Street E	Extension						
Client Sample Date Collected Time Collected Other Informal	ID: Influent : 09/22/22 l: 11:15 tion:					Job Sa Sampl % Mo	ample ID: 220922 le Matrix Water isture	226.01	
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit Q	Date Time	Analyst
EPA 625.1									
	4-Nitrophenol	<0.00113	8 mg/L	1.00	0.00113	0.005		09/25/22 22:54	MS
	Acenaphthene	<0.00028	8 mg/L	1.00	0.00028	0.005		09/25/22 22:54	MS
	Acenaphthylene	<0.00047	mg/L	1.00	0.00047	0.005		09/25/22 22:54	MS
	Anthracene	<0.00035	mg/L	1.00	0.00035	0.005		09/25/22 22:54	MS
	Benzidine	<0.00066	mg/L	1.00	0.00066	0.005		09/25/22 22:54	MS
	Benzo(a)anthracene	<0.00038	mg/L	1.00	0.00038	0.005		09/25/22 22:54	MS
	Benzo(a)pyrene	<0.00085	mg/L	1.00	0.00085	0.005		09/25/22 22:54	MS
	Benzo(b)fluoranthene	<0.00057	mg/L	1	0.00057	0.005		09/25/22 22:54	MS
	Benzo(g,h,i)perylene	< 0.00063	mg/L	1.00	0.00063	0.005		09/25/22 22:54	MS
	Benzo(k)fluoranthene	<0.00057	mg/L	1.00	0.00057	0.005		09/25/22 22:54	MS
	Bis(2-chloroethoxy) methane	< 0.00035	mg/L	1.00	0.00035	0.005		09/25/22 22:54	MS
	Bis(2-chloroethyl) ether	< 0.00072	mg/L	1.00	0.00072	0.005		09/25/22 22:54	MS
	Bis(2-chloroisopropyl) ether	<0.00085	mg/L	1.00	0.00085	0.005		09/25/22 22:54	MS
	Bis(2-ethylhexyl )phthalate	<0.0022	mg/L	1.00	0.00220	0.005		09/25/22 22:54	MS
	Butyl benzyl phthalate	< 0.00069	mg/L	1.00	0.00069	0.005		09/25/22 22:54	MS
	Chrysene	< 0.00057	mg/L	1.00	0.00057	0.005		09/25/22 22:54	MS
	Dibenzo(a,h)anthracene	<0.00069	mg/L	1.00	0.00069	0.005		09/25/22 22:54	MS
	Diethyl phthalate	< 0.00063	mg/L	1.00	0.00063	0.005		09/25/22 22:54	MS
	Dimethyl phthalate	< 0.00072	mg/L	1.00	0.00072	0.005		09/25/22 22:54	MS
	Di-n-butyl phthalate	< 0.00122	ma/L	1.00	0.00122	0.005		09/25/22 22:54	MS
	Di-n-octvl Phthalate	< 0.00276	ma/L	1.00	0.00276	0.005		09/25/22 22:54	MS
	Fluoranthene	< 0.00044	ma/l	1.00	0.00044	0.005		09/25/22 22:54	MS
	Fluorene	< 0.00047	ma/l	1.00	0.00047	0.005		09/25/22 22:54	MS
	Hexachlorobenzene	<0.00069	ma/l	1 00	0.00069	0.005		09/25/22 22:54	MS
	Hexachlorobutadiene	<0.00041	ma/l	1.00	0.00041	0.005		09/25/22 22:54	MS
	Hexachlorocyclopentadiene	<0.00035	ma/l	1.00	0.00035	0.005	12 12	09/25/22 22.54	MS
	Hexachloroethane	< 0.00047	ma/l	1.00	0.00047	0.005	L2, L2	09/25/22 22:54	MS
	Hexachlorophene <sup>2</sup>	<0.0287	ma/l	1.00	0.0287	0.2		09/25/22 22.54	MS
	Indeno(1,2,3-cd)pyrene	<0.000207	ma/l	1.00	0 00022	0.005		09/25/22 22.34	MS
	Isonhorone	<0.00022	mg/L	1.00	0.00022	0.005		09/25/22 22.54	MS
	m- & p-Cresol <sup>2</sup>	0.04491	ma/l	1.00	0.004	0.01		09/25/22 22.54	MS
	Nanhthalene	<0.01191	mg/L	1.00	0.0004	0.005		09/25/22 22.54	MS
	Nitrohenzene		mg/L	1 00	0.000001	0.005		09/25/22 22.34	MS
	Nitroso-N-diethylamine		mg/L	1.00	0.00091	0.005		09/25/22 22:54	MS
	N. Nitrocodibut de mine	<0.005	mg/L	1.00		0.005		09/25/22 22:54	MC NC

Job ID : 22092226

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Date 10/25/2022

Client Name:	Wite No.	Port Arthur, City of		Attn: Flovd Riley							
Project Name	:	Main Plant - 6200 Pro	ctor Street E	ktension					7.0	un rioyu kicy	
Client Sample Date Collected Time Collected Other Informa	Client Sample ID: Influent Date Collected: 09/22/22 Time Collected: 11:15 Other Information:						Job Sample ID:22092226.01Sample MatrixWater% Moisture				
Test Method	Paran	neter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1											
	N-Nitr	rosodimethylamine	<0.00079	mg/L	1.00	0.00079	0.005			09/25/22 22:54	MS
	N-nitr	oso-di-n-propylamine	<0.00072	mg/L	1.00	0.00072	0.005			09/25/22 22:54	MS
	N-Nitr	rosodiphenylamine	<0.00047	mg/L	1.00	0.00047	0.005			09/25/22 22:54	MS
	o-Cre	sol	<0.002	mg/L	1.00	0.002	0.005			09/25/22 22:54	MS
	Penta	chlorobenzene	<0.003	mg/L	1.00	0.003	0.005			09/25/22 22:54	MS
	Penta	chlorophenol	<0.0005	mg/L	1.00	0.00050	0.005			09/25/22 22:54	MS
	Phena	anthrene	<0.00044	mg/L	1.00	0.00044	0.005			09/25/22 22:54	MS
	Phenc	bl	0.01567	mg/L	1.00	0.00044	0.005			09/25/22 22:54	MS
	Pyren	e	<0.00057	mg/L	1.00	0.00057	0.005			09/25/22 22:54	MS
	Pyridir	ne	<0.00035	mg/L	1.00	0.00035	0.005			09/25/22 22:54	MS
	2-Fluc	prophenol(surr)	45.7	%	1.00		15-115			09/25/22 22:54	MS
	Pheno	l-d6(surr)	36.7	%	1.00		10-130			09/25/22 22:54	MS
	Nitrob	enzene-d5(surr)	77.5	%	1.00		23-120			09/25/22 22:54	MS
	2-Fluo	robiphenyl(surr)	73.5	%	1.00		30-115			09/25/22 22:54	MS
	2,4,6-	Tribromophenol(surr)	78.1	%	1.00		19-122			09/25/22 22:54	MS
	p-Terp	ohenyl-d14(surr)	51.3	%	1.00		18-137			09/25/22 22:54	MS
PA 632	Carba	mate and Urea Pesticide	es								
	Carbar	γI	49.27	ug/L	10	7.60	5		L2, L2	09/29/22 13:21	SKM
	Diuron	2	<0.86	ug/L	1	0.86	0.5			09/29/22 11:47	SKM
STM D7065- 1											
	Nonyl	Phenol <sup>2</sup>	5.97	ug/L	1.00		5			09/25/22 22:54	MS
	Terphe	enyl-d14(surr)	51.3	%	1.00		40-140			09/25/22 22:54	MS

Job ID : 22092226

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Date 10/25/2022

Client Name: Project Name:	Port Arthur, City of Main Plant - 6200 Pro	ctor Street E	xtension					Attn: Floyd Riley	
Client Sample I Date Collected Time Collected Other Informat	ID: Effluent 09/22/22 10:30					Job Sample ID:22092226.02Sample MatrixWater% Moisture			
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit Q	Date Time	Analyst
EPA 300.0	Anions								
	Fluoride	0.66015	mg/L	1.00	0.018	0.1		09/23/22 09:15	SKM
	Nitrate-N	6.51	mg/L	1.00	0.007	0.1		09/23/22 09:15	SKM
5M 4500CN-CG	Cyanide, Amenable Ultra Low	I							
	Cyanide, Amenable	<0.001	mg/L	1	0.001	0.002		09/28/22 15:00	SKC
	Cyanide, Available	< 0.001	mg/L	1	0.001	0.002		09/28/22 15:00	SKC
M 4500CNC/E	Cvanide. Total Ultra Low								
	Cyanide	0.005	mg/L	1	0.001	0.002		09/28/22 15:00	SKC
M 3500Cr B									
11 3300Cl D	Chromium Hexavalent	<0.0005	ma/l	1	0.0005	0.00100		09/22/22 16:50	DD
M 2500C+ D		~0.0005	ing/c		0.0005	0.00100		05/22/22 10.50	INF
M 3500CF B	Chromium Trivalant?	<0.001	ma (l	121125		0.00100		00/27/22 11:15	00
	chromium, mvalent <sup>2</sup>	<0.001	mg/L	1		0.00100		09/2//22 11:15	RP
PA 420.4	Phenolics (Total Phenols)								
	Phenois	<0.00449	mg/L	1	0.00449	0.01		09/27/22 15:28	SKC
PA 1631E	CVAFS								
	Mercury	18.5	ng/L	1	0.0419	0.25		09/27/22 14:39	BRR
PA 200.8	Metals by ICP/MS								
	Aluminum	0.04021	mg/L	1	0.001	0.00100		09/26/22 17:43	BRR
	Antimony	0.00057	mg/L	1	0.0002	0.00025		09/26/22 17:43	BRR
	Arsenic	0.00222	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Barium	0.02789	mg/L	1	0.0004	0.00050		09/26/22 17:43	BRR
	Beryllium	< 0.0001	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Cadmium	< 0.0001	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Chromium	0.00042	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Copper	0.00694	mg/L	1	0.0004	0.00050		09/26/22 17:43	BRR
	Lead	0.00066	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Nickel	0.00233	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Selenium	<0.0007	mg/L	1	0.0007	0.00100		09/28/22 22:03	BRR
	Silver	<0.0005	mg/L	1	0.0005	0.00050		09/26/22 17:43	BRR
	Thallium	<0.0001	mg/L	1	0.0001	0.00025		09/26/22 17:43	BRR
	Zinc	0.02458	mg/L	1	0.0011	0.002		09/26/22 17:43	BRR
A 608.3	Polychlorinated Biphenyls								
	Aroclor 1016	<0.0146	ug/L	1.00	0.0146	0.05		09/29/22 02:40	PS
1	Aroclor 1221	<0.0129	ug/L	1.00	0.0129	0.05		09/29/22 02:40	PS
,	Aroclor 1232	< 0.0129	ug/L	1.00	0.0129	0.05		09/29/22 02:40	PS

Job ID : 22092226

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Date 10/25/2022

Client Name: Project Name	Port Arthur, City of Main Plant - 6200 Pr	roctor Street E	xtension					At	tn: Floyd Riley	
Client Sample Date Collecte Time Collecte Other Inform	e ID: Effluent d: 09/22/22 d: 10:30 ation:					Job Sample ID:22092226.02Sample MatrixWater% Moisture				
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analys
EPA 608.3	Polychlorinated Biphenyls									
	Aroclor 1242	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:40	PS
	Aroclor 1248	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:40	PS
	Aroclor 1254	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:40	PS
	Aroclor 1260	< 0.01005	ug/L	1.00	0.01005	0.05			09/29/22 02:40	PS
	Total PCBs	<0.0129	ug/L	1.00	0.0129	0.05			09/29/22 02:40	PS
	Decachlorobiphenyl(surr)	40	%	1.00		35-129			09/29/22 02:40	PS
	Tetrachloro-m-xylene(surr)	87.5	%	1.00		27-127			09/29/22 02:40	PS
PA 608.3	Organochlorine Pesticides									
	Dicofol <sup>2</sup>	< 0.05	ug/L	1.00		0.05			09/28/22 16:56	KMN
	4,4-DDD	< 0.006	ug/L	1.00	0.006	0.01			09/28/22 16:56	KMN
	4,4-DDE	< 0.002	ug/L	1.00	0.002	0.01			09/28/22 16:56	KMN
	4,4-DDT	< 0.004	ug/L	1.00	0.004	0.01			09/28/22 16:56	KMN
	a-BHC	<0.008	ug/L	1.00	0.008	0.01			09/28/22 16:56	KMN
	Aldrin	< 0.003	ug/L	1.00	0.003	0.01			09/28/22 16:56	KMN
	b-BHC	<0.01	ug/L	1.00	0.010	0.01			09/28/22 16:56	KMN
	Chlordane	<0.1	ug/L	1.00		0.1			09/28/22 16:56	KMN
	d-BHC	< 0.004	ug/L	1.00	0.004	0.01			09/28/22 16:56	KMN
	Dieldrin	< 0.003	ug/L	1.00	0.003	0.01			09/28/22 16:56	KMN
	Endosulfan I	< 0.003	ug/L	1.00	0.003	0.01			09/28/22 16:56	KMN
	Endosulfan II	<0.004	ug/L	1.00	0.004	0.01			09/28/22 16:56	KMN
	Endosulfan sulfate	< 0.003	ug/L	1.00	0.003	0.01			09/28/22 16:56	KMN
	Endrin	< 0.004	ug/L	1.00	0.004	0.01			09/28/22 16:56	KMN
	Endrin aldehyde	<0.008	ug/L	1.00	0.008	0.01			09/28/22 16:56	KMN
	g-BHC	< 0.005	ug/L	1.00	0.005	0.01			09/28/22 16:56	KMN
	Heptachlor	< 0.005	ug/L	1.00	0.005	0.01			09/28/22 16:56	KMN
	Heptachlor epoxide	<0.002	ug/L	1.00	0.002	0.01			09/28/22 16:56	KMN
	Methoxychlor	< 0.005	ug/L	1.00	0.005	0.01			09/28/22 16:56	KMN
	Mirex <sup>2</sup>	<0.01	ug/L	1.00		0.01			09/28/22 16:56	KMN
	Toxaphene	<0.1	ug/L	1.00	0.1	0.1			09/28/22 16:56	KMN
	Tetrachloro-m-xylene(surr)	78.5	%	1.00		24-127			09/28/22 16:56	KMN
	Decachlorobiphenyl(surr)	39.3	%	1.00		34-120			09/28/22 16:56	KMN
A 614	Organophosphorus Pesticides	S								
	Chlorpyrifos <sup>2</sup>	< 0.04	ug/L	1.00	0.04	0.1			09/28/22 21:00	PS
	Demeton <sup>2</sup>	< 0.04	ug/L	1.00	0.04	0.1			09/28/22 21:00	PS
	Diazinon <sup>2</sup>	< 0.04	ua/l	1.00	0.04	0.1			09/28/22 21.00	PS

Job ID: 22092226

FIL

Date 10/25/2022

Client Name: Project Name:	Port Arthur, City of Main Plant - 6200 Pro	ctor Street	Extension					A	Attn: Floyd Riley	
Client Sample Date Collected Time Collected Other Informa	ID: Effluent d: 09/22/22 d: 10:30 ttion:					Job Sa Sample % Mois	mple ID: e Matrix sture	220922 Water	226.02	
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 614	Organophosphorus Pesticide	5								
	Guthion <sup>2</sup>	<0.04	ug/L	1.00	0.04	0.1			09/28/22 21:00	PS
	Malathion <sup>2</sup>	< 0.05	ug/L	1.00	0.05	0.1			09/28/22 21:00	PS
	Parathion <sup>2</sup>	<0.06	ug/L	1.00	0.06	0.1			09/28/22 21:00	PS
	4-Chloro-3-Nitro-Benzene (surr)	51.9	%	1.00		15-109			09/28/22 21:00	PS
EPA 615	Chlorinated Herbicides									
	2,4,5-TP	<0.19	ug/L	1.00	0.19	0.19			09/26/22 21:55	PS
	2,4-D	<0.19	ug/L	1.00	0.19	0.188			09/26/22 21:55	PS
	DCPAA(surr)	67.7	%	1.00		38-120			09/26/22 21:55	PS
EPA 624.1	Volatile Organic Compounds									
	1,1,1-Trichloroethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,1,2,2-Tetrachloroethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,1,2-Trichloroethane	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,1-Dichloroethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,1-Dichloroethylene	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,2-Dibromoethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,2-Dichloroethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	1,2-Dichloropropane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	2-chloroethylvinyl Ether	<0.006	mg/L	1.00	0.006	0.01			09/23/22 13:09	RT
	Acrolein	<0.006	mg/L	1.00	0.006	0.01			09/23/22 13:09	RT
	Acrylonitrile	<0.003	mg/L	1.00	0.003	0.005			09/23/22 13:09	RT
	Benzene	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Bromochloromethane <sup>2</sup>	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Bromodichloromethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Bromoform	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Bromomethane	<0.002	mg/L	1.00	0.002	0.005			09/23/22 13:09	RT
	Carbon tetrachloride	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Chlorobenzene	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Chloroethane	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Chloroform	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Chloromethane	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	cis-1,3-Dichloropropene	<0.001	mg/L	1	0.001	0.005			09/23/22 13:09	RT
	Dibromochloromethane	<0.001	mg/L	1	0.001	0.005			09/23/22 13:09	RT
	Ethylbenzene	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	MEK	< 0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT

Job ID : 22092226

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Date 10/25/2022

Client Name:	Port Arthur City of	and the training			AND CONTRACTOR	A CONTRACTOR		•		
Drojoct Name	Main Blant 6200 Br	actor Street D	Intension					А	ittn: Floyd Riley	
FTOJECT Name.			ALCHSION							
Client Sample Date Collectec Time Collectec Other Informa	ID: Effluent d: 09/22/22 d: 10:30 tion:					Job Sa Sampl % Moi	imple ID: e Matrix sture	220922 Water	226.02	
Fest Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 624.1	Volatile Organic Compounds					Serie a			and the second	
	Methylene chloride	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Tetrachloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Toluene	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	trans-1,2-Dichloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	trans-1,3-Dichloropropene	<0.001	mg/L	1	0.001	0.005			09/23/22 13:09	RT
	Trichloroethylene	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	TTHMs	<0.002	mg/L	1.00	0.002	0.02			09/23/22 13:09	RT
	Vinyl Chloride	<0.001	mg/L	1.00	0.001	0.005			09/23/22 13:09	RT
	Dibromofluoromethane(surr)	103	%	1.00		70-130			09/23/22 13:09	RT
	1,2-Dichloroethane-d4(surr)	108	%	1.00		70-130			09/23/22 13:09	RT
	Toluene-d8(surr)	97.6	%	1.00		70-130			09/23/22 13:09	RT
	p-Bromofluorobenzene(surr)	106	%	1.00		70-130			09/23/22 13:09	RT
PA 625.1										
	1,2,4,5-Tetrachlorobenzene	<0.005	mg/L	1.00		0.005			09/25/22 23:23	MS
	1,2,4-Trichlorobenzene	< 0.00053	mg/L	1.00	0.00053	0.005			09/25/22 23:23	MS
	1,2-Dichlorobenzene	<0.00041	mg/L	1.00	0.00041	0.005			09/25/22 23:23	MS
	1,2-Diphenylhydrazine as Azobenzene	<0.00022	mg/L	1.00	0.00022	0.005			09/25/22 23:23	MS
	1,3-Dichlorobenzene	<0.00053	mg/L	1.00	0.00053	0.005			09/25/22 23:23	MS
	1,4-Dichlorobenzene	<0.00025	mg/L	1.00	0.00025	0.005			09/25/22 23:23	MS
	2,4,5-Trichlorophenol	<0.00085	mg/L	1.00	0.00085	0.005			09/25/22 23:23	MS
	2,4,6-Trichlorophenol	<0.00079	mg/L	1.00	0.00079	0.005			09/25/22 23:23	MS
	2,4-Dichlorophenol	<0.00069	mg/L	1.00	0.00069	0.005			09/25/22 23:23	MS
	2,4-Dimethylphenol	<0.00053	mg/L	1.00	0.00053	0.005			09/25/22 23:23	MS
	2,4-Dinitrophenol	<0.00141	mg/L	1.00	0.00141	0.005			09/25/22 23:23	MS
	2,4-Dinitrotoluene	<0.00097	mg/L	1.00	0.00097	0.005			09/25/22 23:23	MS
	2,6-Dinitrotoluene	<0.00122	mg/L	1.00	0.00122	0.005			09/25/22 23:23	MS
	2-Chloronaphthalene	<0.00028	mg/L	1.00	0.00028	0.005			09/25/22 23:23	MS
	2-Chlorophenol	<0.0005	mg/L	1.00	0.00050	0.005			09/25/22 23:23	MS
	2-Nitrophenol	<0.00088	mg/L	1.00	0.00088	0.005			09/25/22 23:23	MS
	3,3-Dichlorobenzidine	<0.00088	mg/L	1.00	0.00088	0.005			09/25/22 23:23	MS
	4,6-Dinitro-2-methylphenol	<0.00066	mg/L	1.00	0.00066	0.005			09/25/22 23:23	MS
	4-Bromophenyl phenyl ether	<0.00041	mg/L	1.00	0.00041	0.005			09/25/22 23:23	MS
	4-Chloro-3-methylphenol	<0.00053	mg/L	1.00	0.00053	0.005			09/25/22 23:23	MS
	4-Chlorophenyl phenyl ether	<0.00066	mg/L	1.00	0.00066	0.005			09/25/22 23:23	MS

Job ID : 22092226

P

Date 10/25/2022

Client Name: Project Name:		Port Arthur, City of Main Plant - 6200 Proc	tor Street E	xtension					Al	ttn: Floyd Riley	
Client Sample Date Collected Time Collected Other Informa	ID: : l: tion:	Effluent 09/22/22 10:30					Job Sample ID:22092226.02Sample MatrixWater% Moisture				
Test Method	Para	meter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1											
	4-Nit	rophenol	<0.00113	mg/L	1.00	0.00113	0.005			09/25/22 23:23	MS
	Acen	aphthene	<0.00028	mg/L	1.00	0.00028	0.005			09/25/22 23:23	MS
	Acen	aphthylene	<0.00047	mg/L	1.00	0.00047	0.005			09/25/22 23:23	MS
	Anthr	acene	<0.00035	mg/L	1.00	0.00035	0.005			09/25/22 23:23	MS
	Benzi	dine	<0.00066	mg/L	1.00	0.00066	0.005			09/25/22 23:23	MS
	Benzo	o(a)anthracene	<0.00038	mg/L	1.00	0.00038	0.005			09/25/22 23:23	MS
	Benzo	o(a)pyrene	<0.00085	mg/L	1.00	0.00085	0.005			09/25/22 23:23	MS
	Benzo	o(b)fluoranthene	<0.00057	mg/L	1	0.00057	0.005			09/25/22 23:23	MS
	Benzo	o(g,h,i)perylene	<0.00063	mg/L	1.00	0.00063	0.005			09/25/22 23:23	MS
	Benzo	o(k)fluoranthene	<0.00057	mg/L	1.00	0.00057	0.005			09/25/22 23:23	MS
	Bis(2-	chloroethoxy) methane	< 0.00035	mg/L	1.00	0.00035	0.005			09/25/22 23:23	MS
	Bis(2-	chloroethyl) ether	<0.00072	mg/L	1.00	0.00072	0.005			09/25/22 23:23	MS
	Bis(2-	chloroisopropyl) ether	<0.00085	mg/L	1.00	0.00085	0.005			09/25/22 23:23	MS
	Bis(2-	ethylhexyl )phthalate	<0.0022	mg/L	1.00	0.00220	0.005			09/25/22 23:23	MS
	Butyl	benzyl phthalate	< 0.00069	mg/L	1.00	0.00069	0.005			09/25/22 23:23	MS
	Chrys	ene	< 0.00057	mg/L	1.00	0.00057	0.005			09/25/22 23:23	MS
	Diben	zo(a,h)anthracene	<0.00069	mg/L	1.00	0.00069	0.005			09/25/22 23:23	MS
	Diethy	/l phthalate	< 0.00063	mg/L	1.00	0.00063	0.005			09/25/22 23:23	MS
	Dimet	hyl phthalate	< 0.00072	mg/L	1.00	0.00072	0.005			09/25/22 23:23	MS
	Di-n-b	outyl phthalate	< 0.00122	mg/L	1.00	0.00122	0.005			09/25/22 23:23	MS
	Di-n-o	ctyl Phthalate	<0.00276	mg/L	1.00	0.00276	0.005			09/25/22 23:23	MS
	Fluora	nthene	<0.00044	mg/L	1.00	0.00044	0.005			09/25/22 23:23	MS
	Fluore	ne	< 0.00047	mg/L	1.00	0.00047	0.005			09/25/22 23:23	MS
	Hexac	hlorobenzene	<0.00069	mg/L	1.00	0.00069	0.005			09/25/22 23:23	MS
	Hexac	hlorobutadiene	<0.00041	mg/L	1.00	0.00041	0.005			09/25/22 23:23	MS
	Hexac	hlorocyclopentadiene	< 0.00035	mg/L	1.00	0.00035	0.005		L2, L2	09/25/22 23:23	MS
	Hexac	hloroethane	<0.00047	mg/L	1.00	0.00047	0.005			09/25/22 23:23	MS
	Hexac	hlorophene <sup>2</sup>	<0.0287	mg/L	1.00	0.0287	0.2			09/25/22 23:23	MS
	Indend	o(1,2,3-cd)pyrene	<0.00022	mg/L	1.00	0.00022	0.005			09/25/22 23:23	MS
	Isopho	prone	<0.00028	mg/L	1.00	0.00028	0.005			09/25/22 23:23	MS
	m- & p	o-Cresol <sup>2</sup>	<0.004	mg/L	1.00	0.004	0.01			09/25/22 23:23	MS
	Naphth	nalene	<0.00031	mg/L	1.00	0.00031	0.005			09/25/22 23:23	MS
	Nitrobe	enzene	<0.00091	mg/L	1.00	0.00091	0.005			09/25/22 23:23	MS
	Nitrosc	o-N-diethylamine	<0.005	mg/L	1.00		0.005			09/25/22 23:23	MS
	N-Nitro	osodibutylamine	<0.005	mg/L	1.00		0.005			09/25/22 23:23	MS

Job ID: 22092226

 Date 10/25/2022

Client Name:	121	Port Arthur, City of							At	tn: Floyd Riley	
Project Name	:	Main Plant - 6200 Pro	ctor Street Ex	ktension							
Client Sample Date Collected Time Collected Other Informa	ID: 1: d: ation:	Effluent 09/22/22 10:30					Job Sample ID: 22092226.0 Sample Matrix Water % Moisture			26.02	
Test Method	Parar	neter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1							In the states				Para da la
	N-Nit	rosodimethylamine	<0.00079	mg/L	1.00	0.00079	0.005			09/25/22 23:23	MS
	N-nitr	roso-di-n-propylamine	<0.00072	mg/L	1.00	0.00072	0.005			09/25/22 23:23	MS
	N-Niti	rosodiphenylamine	<0.00047	mg/L	1.00	0.00047	0.005			09/25/22 23:23	MS
	o-Cre	sol	<0.002	mg/L	1.00	0.002	0.005			09/25/22 23:23	MS
	Penta	chlorobenzene	<0.003	mg/L	1.00	0.003	0.005			09/25/22 23:23	MS
	Penta	chlorophenol	< 0.0005	mg/L	1.00	0.00050	0.005			09/25/22 23:23	MS
	Phena	anthrene	<0.00044	mg/L	1.00	0.00044	0.005			09/25/22 23:23	MS
	Pheno	bl	<0.00044	mg/L	1.00	0.00044	0.005			09/25/22 23:23	MS
	Pyren	e	<0.00057	mg/L	1.00	0.00057	0.005			09/25/22 23:23	MS
	Pyridi	ne	<0.00035	mg/L	1.00	0.00035	0.005			09/25/22 23:23	MS
	2-Fluc	prophenol(surr)	40.9	%	1.00		15-115			09/25/22 23:23	MS
	Phenc	ol-d6(surr)	33	%	1.00		10-130			09/25/22 23:23	MS
	Nitrob	enzene-d5(surr)	80.3	%	1.00		23-120			09/25/22 23:23	MS
	2-Fluo	probiphenyl(surr)	71.7	%	1.00		30-115			09/25/22 23:23	MS
	2,4,6-	Tribromophenol(surr)	68	%	1.00		19-122			09/25/22 23:23	MS
	p-Terp	ohenyl-d14(surr)	55.8	%	1.00		18-137			09/25/22 23:23	MS
PA 632	Carba	mate and Urea Pesticide	es								
	Carba	ryl	<0.76	ug/L	1	0.76	0.5		L2, L2	09/29/22 12:05	SKM
	Diuror	12	<0.86	ug/L	1	0.86	0.5			09/29/22 12:05	SKM
STM D7065-											
	Nonyl	Phenol <sup>2</sup>	<5	ug/L	1.00		5			09/25/22 23:23	MS
	Terphe	enyl-d14(surr)	55.8	%	1.00		40-140			09/25/22 23:23	MS



Job ID : 22092226

Date : 10/25/2022

Analysis : Anions		Method :	EPA 300.0	Reporting Units : mg/L
QC Batch ID : Qb22092444	Created Date : 09/22/	22 Created By	Skannan	
Samples in This OC Batch	22002226 01 02			

Samples in This QC Batch : 22092226.01,02

Sample Preparation : PB22092424 Prep Method : EPA 300.0

Prep Date : 09/22/22 17:00 Prep By :

Prep By : Skannan

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Fluoride		< MDL	mg/L	1.00	0.1	0.01	
Nitrate-N	14797-55-8	< MDL	mg/L	1.00	0.1	0.01	

QC Type:	LCS and LCS	D									
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Fluoride		1	0.980	98	1	0.973	97.3	0.7	20	90-110	
Nitrate-N		1	0.927	92.7	1	0.968	96.8	4.3	20	90-110	

QC Type: MS a QC Sample ID:	nd MSD 22092115.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Fluoride	BRL	1	1.07	107						80-120	
Nitrate-N	2.35	1	3.42	107						80-120	



Job ID : 22092226

Date: 10/25/2022

Analysis :					Method :	EPA 62	5.1 Rep	orting Units	: mg/L
QC Batch ID : Qb22	2092502	Created I	Date :	09/25/22	Created By :	MShah			
Samples in This QC	Batch :	22092226.	01,02						
Extraction :	PB220	092414	Prep N	lethod : EPA 625.1	Pre	p Date :	09/24/22 08:30	Prep By :	MMuteen

QC Type: Method Blank								
Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qua
1,2,4,5-Tetrachlorobenzene	95-94-3	< MQL	mg/L	1.00	0.005			
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1.00	0.005	0.00053		
1,2-Dichlorobenzene	95-50-1	< MDL	mg/L	1.00	0.005	0.00041		
1,2-Diphenylhydrazine as A	122-66-7	< MDL	mg/L	1.00	0.005	0.00022		
1,3-Dichlorobenzene	541-73-1	< MDL	mg/L	1.00	0.005	0.00053		
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.005	0.00025		
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		
3,3-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	1.	
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-chloroisopropyl) ether	108-60-1	< MDL	mg/L	1.00	0.005	0.00085		
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		2
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		
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Refer to the Definition page for terms.



Job ID : 22092226

Date : 10/25/2022

Analysis :			Method :	EPA 625.1	Reporting Units : mg/L
QC Batch ID : Qb22092502	Created Date :	09/25/22	Created By :	MShah	
Samples in This QC Batch :	22092226.01,02				

QC Type: Method Blank	(		Merchellight					
Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qua
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		
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	N	
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	1	
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		
m- & p-Cresol	65794-96-9	< MDL	mg/L	1.00	0.01	0.004	· · · · · · · · · · · · · · · · · · ·	
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		
Nonyl Phenol	25154-52-3	< MQL	mg/L	1.00	0.005			
o-Cresol	95-48-7	< MDL	mg/L	1.00	0.005	0.002		
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	52.9	%	1.00				
Phenol-d6(surr)	13127-88-3	39.3	%	1.00				
Nitrobenzene-d5(surr)	4165-60-0	88.8	%	1.00				
2-Fluorobiphenyl(surr)	321-60-8	82.2	%	1.00				
2,4,6-Tribromophenol(surr)	118-79-6	83.5	%	1.00				
o-Terphenyl-d14(surr)	1718-51-0	93	%	1.00				



#### Job ID : 22092226

Date : 10/25/2022

Analysis :			Method :	EPA 625.1	Reporting Units : mg/L
QC Batch ID : Qb22092502	Created Date :	09/25/22	Created By :	MShah	

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Samples in This QC Batch : 22092226.01,02

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	0.0384	76.8	0.05	0.0387	77.4	0.8	30	51.5-103	
1,2,4-Trichlorobenzene	0.05	0.0359	71.8	0.05	0.0369	73.8	2.8	30	44-100	
1,2-Dichlorobenzene	0.05	0.0338	67.6	0.05	0.0353	70.6	4.3	30	37.1-100	
1,2-Diphenylhydrazine as A	0.05	0.0420	84	0.05	0.0441	88.2	4.9	30	41-127	
1,3-Dichlorobenzene	0.05	0.0343	68.6	0.05	0.0346	69.2	0.9	30	36.2-100	
1,4-Dichlorobenzene	0.05	0.0335	67	0.05	0.0346	69.2	3.2	30	36.2-100	
2,4,5-Trichlorophenol	0.05	0.0450	90	0.05	0.0477	95.4	5.8	30	41.6-124	
2,4,6-Trichlorophenol	0.05	0.0456	91.2	0.05	0.0470	94	3	30	42.7-120	
2,4-Dichlorophenol	0.05	0.0425	85	0.05	0.0430	86	1.2	30	44.2-114	
2,4-Dimethylphenol	0.1	0.0660	66	0.05	0.0470	94	33.6	30	32-120	
2,4-Dinitrophenol	0.05	0.0493	98.6	0.05	0.0464	92.8	6.1	30	10-130	
2,4-Dinitrotoluene	0.05	0.0422	84.4	0.05	0.0438	87.6	3.7	30	54.2-127	
2,6-Dinitrotoluene	0.05	0.0436	87.2	0.05	0.0447	89.4	2.5	30	55.5-119	
2-Chloronaphthalene	0.05	0.0350	70	0.05	0.0360	72	2.8	24	50.6-100	
2-Chlorophenol	0.05	0.0378	75.6	0.05	0.0393	78.6	3.9	30	42-109	
2-Nitrophenol	0.05	0.0456	91.2	0.05	0.0476	95.2	4.3	30	38.8-120	
3,3-Dichlorobenzidine	0.05	0.0370	74	0.05	0.0386	77.2	4.2	30	48.8-126	
4,6-Dinitro-2-methylphenol	0.05	0.0526	105	0.05	0.0513	103	2.5	30	16.5-136	
4-Bromophenyl phenyl ethe	0.05	0.0403	80.6	0.05	0.0422	84.4	4.6	30	62.7-107	
4-Chloro-3-methylphenol	0.05	0.0440	88	0.05	0.0446	89.2	1.4	30	52.4-120	
4-Chlorophenyl phenyl ethe	0.05	0.0420	84	0.05	0.0409	81.8	2.6	30	59.2-108	
4-Nitrophenol	0.05	0.04376	87.5	0.05	0.0444	88.8	1.4	30	10-129	
Acenaphthene	0.05	0.0393	78.6	0.05	0.0408	81.6	3.8	30	51.2-101	
Acenaphthylene	0.05	0.0362	72.4	0.05	0.0374	74.8	3.3	30	46.4-102	
Anthracene	0.05	0.0389	77.8	0.05	0.0408	81.6	4.8	30	54.6-109	
Benzidine	0.05	0.03028	60.6	0.05	0.0329	65.8	8.3	30	10-132	
Benzo(a)anthracene	0.05	0.0400	80	0.05	0.0417	83.4	4.2	30	56.3-113	
Benzo(a)pyrene	0.05	0.0391	78.2	0.05	0.0402	80.4	2.8	30	51.7-124	
Benzo(b)fluoranthene	0.05	0.0395	79	0.05	0.0390	78	1.3	30	46.7-118	
Benzo(g,h,i)perylene	0.05	0.0467	93.4	0.05	0.0461	92.2	1.3	30	43.6-117	
Benzo(k)fluoranthene	0.05	0.0394	78.8	0.05	0.0438	87.6	10.6	30	49.4-116	
Bis(2-chloroethoxy) methan	0.05	0.0382	76.4	0.05	0.0402	80.4	5.1	30	49.7-112	
Bis(2-chloroethyl) ether	0.05	0.0383	76.6	0.05	0.0410	82	6.8	30	38.2-122	
Bis(2-chloroisopropyl) ether	0.05	0.0372	74.4	0.05	0.0388	77.6	4.2	30	39.8-110	
Bis(2-ethylhexyl )phthalate	0.05	0.0435	87	0.05	0.0447	89.4	2.7	30	51.1-138	
Butyl benzyl phthalate	0.05	0.0461	92.2	0.05	0.0480	96	4	30	57.3-123	
Chrysene	0.05	0.0417	83.4	0.05	0.0427	85.4	2.4	30	62.5-104	
Dibenzo(a,h)anthracene	0.05	0.0442	88.4	0.05	0.0476	95.2	7.4	30	43.3-118	
Diethyl phthalate	0.05	0.0457	91.4	0.05	0.0454	90.8	0.7	30	57.7-118	
Dimethyl phthalate	0.05	0.0415	83	0.05	0.0429	85.8	3.3	30	60.6-109	
Di-n-butyl phthalate	0.05	0.0445	89	0.05	0.0461	92.2	3.5	30	58.8-120	
Di-n-octyl Phthalate	0.05	0.0393	78.6	0.05	0.0399	79.8	1.5	30	47.4-137	
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Job ID : 22092226

Date : 10/25/2022

Analysis :			Method :	EPA 625.1	Reporting Units : mg/L
QC Batch ID : Qb22092502	Created Date :	09/25/22	Created By :	MShah	

Samples in This QC Batch : 22092226.01,02

QC Type: LCS and LCS	D									
	LCS	LCS	LCS	LCSD	LCSD	LCSD		RPD	%Recovery	
Parameter	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Fluoranthene	0.05	0.0416	83.2	0.05	0.0429	85.8	3.1	30	57.9-117	
Fluorene	0.05	0.0425	85	0.05	0.0425	85	0	30	59-110	
Hexachlorobenzene	0.05	0.0386	77.2	0.05	0.0410	82	6	30	56.2-109	
Hexachlorobutadiene	0.05	0.0326	65.2	0.05	0.0318	63.6	2.5	30	36.8-100	
Hexachlorocyclopentadiene	0.05	0.00247	4.94	0.05	0.00237	4.74	4.1	30	10-100	L2
Hexachloroethane	0.05	0.0336	67.2	0.05	0.0342	68.4	1.8	30	40-120	
Indeno(1,2,3-cd)pyrene	0.05	0.0455	91	0.05	0.0495	99	8.4	30	40.4-117	
Isophorone	0.05	0.0358	71.6	0.05	0.0377	75.4	5.2	30	48-102	
m- & p-Cresol	0.1	0.0724	72.4	0.1	0.0748	74.8	3.3	30	36.1-104	
Naphthalene	0.05	0.0362	72.4	0.05	0.0373	74.6	3	30	39.2-109	
Nitrobenzene	0.05	0.0441	88.2	0.05	0.0442	88.4	0.2	30	48.3-120	
Nitroso-N-diethylamine	0.05	0.0365	73	0.05	0.0378	75.6	3.5	30	45.2-120	
N-Nitrosodibutylamine	0.05	0.0342	68.4	0.05	0.0342	68.4	0	30	46.6-100	
N-Nitrosodimethylamine	0.05	0.0282	56.4	0.05	0.0296	59.2	4.8	30	27.4-100	
N-nitroso-di-n-propylamine	0.05	0.0388	77.6	0.05	0.0413	82.6	6.2	30	50.1-116	
N-Nitrosodiphenylamine	0.05	0.0406	81.2	0.05	0.0421	84.2	3.6	30	62.9-105	
Nonyl Phenol	0.05	0.04625	92.5	0.05	0.0485	97	4.8	30	63.1-120	
o-Cresol	0.05	0.0358	71.6	0.05	0.0380	76	6	30	44.7-105	
Pentachlorobenzene	0.05	0.0449	89.8	0.05	0.0448	89.6	0.2	30	57.3-110	
Pentachlorophenol	0.05	0.0550	110	0.05	0.0498	99.6	9.9	30	28.8-136	1 2 1
Phenanthrene	0.05	0.0412	82.4	0.05	0.0418	83.6	1.4	30	56.2-105	
Phenol	0.05	0.0199	39.8	0.05	0.0257	51.4	25.4	30	14.6-100	
Pyrene	0.05	0.0434	86.8	0.05	0.0448	89.6	3.2	30	57.7-111	
Pyridine	0.05	0.02834	56.7	0.05	0.0276	55.2	2.6	30	20.9-100	

QC Type: MS and MSD	-				<u>Angiketar</u>	a sana					
QC Sample ID: 220923	845.01										
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	0.0337	67.5						10-125	
1,2,4-Trichlorobenzene	BRL	0.05	0.0295	59.1						44-106	
1,2-Dichlorobenzene	BRL	0.05	0.0290	58						20.1-100	
1,2-Diphenylhydrazine as A	BRL	0.05	0.0404	80.8						10-144	
1,3-Dichlorobenzene	BRL	0.05	0.0279	55.8						18.8-100	
1,4-Dichlorobenzene	BRL	0.05	0.0281	56.2						20-100	
2,4,5-Trichlorophenol	BRL	0.05	0.0326	65.2						10-111	
2,4,6-Trichlorophenol	BRL	0.05	0.0330	66						37-115	
2,4-Dichlorophenol	BRL	0.05	0.0295	58.9						39-135	
2,4-Dimethylphenol	BRL	0.1	0.0539	53.9	1 1		-			32-120	
2,4-Dinitrophenol	BRL	0.05	0.0427	85.3						10-120	



Job ID : 22092226

Date : 10/25/2022

Analysis :			Method :	EPA 625.1	Reporting Units : mg/L
QC Batch ID : Qb22092502	Created Date :	09/25/22	Created By :	MShah	
Samples in This QC Batch :	22092226.01,02				

QC Type: MS and MSD											
QC Sample ID: 220923	345.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,4-Dinitrotoluene	BRL	0.05	0.0418	83.6						39-136	
2,6-Dinitrotoluene	BRL	0.05	0.0411	82.1						50-128	
2-Chloronaphthalene	BRL	0.05	0.0317	63.4						60-106	
2-Chlorophenol	BRL	0.05	0.0257	51.4						23-110	
2-Nitrophenol	BRL	0.05	0.0316	63.2						29-123	
3,3-Dichlorobenzidine	BRL	0.05	0.0101	20.1						10-168	
4,6-Dinitro-2-methylphenol	BRL	0.05	0.0410	82						10-128	
4-Bromophenyl phenyl ethe	BRL	0.05	0.0386	77.3						40.1-120	
4-Chloro-3-methylphenol	BRL	0.05	0.0341	68.3						34.1-124	
4-Chlorophenyl phenyl ethe	BRL	0.05	0.0369	73.9						38.8-120	
4-Nitrophenol	BRL	0.05	0.0215	43						10-104	
Acenaphthene	BRL	0.05	0.0364	72.8						47-109	
Acenaphthylene	BRL	0.05	0.0338	67.7						33-116	
Anthracene	BRL	0.05	0.0367	73.3						28-120	
Benzidine	BRL	0.05	BRL	0						10-127	M9
Benzo(a)anthracene	BRL	0.05	0.0373	74.5						33.6-126	
Benzo(a)pyrene	BRL	0.05	0.0358	71.6						31.9-139	
Benzo(b)fluoranthene	BRL	0.05	0.0353	70.6						33.4-125	
Benzo(g,h,i)perylene	BRL	0.05	0.0351	70.2						35-121	
Benzo(k)fluoranthene	BRL	0.05	0.0365	73						32.2-128	
Bis(2-chloroethoxy) methan	BRL	0.05	0.0377	75.4						34.9-113	
Bis(2-chloroethyl) ether	BRL	0.05	0.0366	73.2						10-145	
Bis(2-chloroisopropyl) ether	BRL	0.05	0.0341	68.2						28.8-112	
Bis(2-ethylhexyl )phthalate	BRL	0.05	0.0426	85.1			-			36.9-158	
Butyl benzyl phthalate	BRL	0.05	0.0440	87.9						47.5-131	
Chrysene	BRL	0.05	0.0383	76.7						42-115	
Dibenzo(a,h)anthracene	BRL	0.05	0.0344	68.7						38.3-121	
Diethyl phthalate	BRL	0.05	0.0423	84.6						40.6-120	
Dimethyl phthalate	BRL	0.05	0.0398	79.6						41.8-120	
Di-n-butyl phthalate	BRL	0.05	0.0446	89.2						45-120	
Di-n-octyl Phthalate	BRL	0.05	0.0425	84.9						34.8-146	
Fluoranthene	BRL	0.05	0.0400	80						41.2-121	
Fluorene	BRL	0.05	0.0391	78.3						36.4-120	
Hexachlorobenzene	BRL	0.05	0.0352	70.5						38.5-116	
Hexachlorobutadiene	BRL	0.05	0.0255	51						25-100	
Hexachlorocyclopentadiene	BRL	0.05	BRL	0						10-104	M9
Hexachloroethane	BRL	0.05	0.0270	54						40-100	
Indeno(1,2,3-cd)pyrene	BRL	0.05	0.0358	71.7						31.8-122	
isophorone	BRL	0.05	0.0330	66				· · ·		27.3-104	
n- & p-Cresol	BRL	0.1	0.0536	53.6						10-180	

ab-q213-0321

Refer to the Definition page for terms.



#### Job ID : 22092226

Date: 10/25/2022

Analysis :			Method :	EPA 625.1	Reporting Units : mg/L
QC Batch ID : Qb22092502	Created Date :	09/25/22	Created By :	MShah	
Samples in This QC Batch :	22092226.01,02				

QC Type: MS and MSD											
QC Sample ID: 220923	345.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Naphthalene	BRL	0.05	0.0358	71.6						21-133	
Nitrobenzene	BRL	0.05	0.0420	84						32.2-123	
Nitroso-N-diethylamine	BRL	0.05	0.0331	66.2						29.5-111	
N-Nitrosodibutylamine	BRL	0.05	0.0330	66						24.1-112	
N-Nitrosodimethylamine	BRL	0.05	0.0292	58.4						19.1-100	
N-nitroso-di-n-propylamine	BRL	0.05	0.0357	71.4						35.5-117	
N-Nitrosodiphenylamine	BRL	0.05	0.0374	74.8			a a 1			10-146	
Nonyl Phenol	BRL	0.05	0.0486	97.2						10-200	
o-Cresol	BRL	0.05	0.0298	59.5	1 1					14.9-109	
Pentachlorobenzene	BRL	0.05	0.0368	73.7						19.9-133	
Pentachlorophenol	BRL	0.05	0.0405	81.1						14-129	
Phenanthrene	BRL	0.05	0.0388	77.6						38.6-112	
Phenol	BRL	0.05	0.0148	29.5						10-100	
Pyrene	BRL	0.05	0.0400	79.9						38.1-120	
Pyridine	BRL	0.05	0.0229	45.8				1		10-100	



Job ID : 22092226

Analysis : Volatile Organ	ic Compounds	Method :	EPA 624.1	Reporting Units : mg/L
QC Batch ID : Qb22092601	Created Date: 09/23/22	Created By :	Rajeev	
Samples in This QC Batch :	22092226.01,02			
Sample Preparation : PB22	2092601 Prep Method : SW-3	846 5030C Prep	Date: 09/23/22	2 10:00 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-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-chloroethylvinyl Ether	110-75-8	< MDL	mg/L	1.00	0.01	0.006		
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		
Bromochloromethane	74-97-5	< 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	а.	
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		
Hexachlorobutadiene	87-68-3	< MDL	mg/L	1.00	0.005	0.00094		
МЕК	78-93-3	< MDL	mg/L	1.00	0.005	0.001		
Methylene chloride	75-09-2	< 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		
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	103	%	1.00				
1.72 eff		ono 8.					ab-c	213-0321

Refer to the Definition page for terms.



Job ID : 22092226

Analysis : Volatile Organ	: Volatile Organic Compounds		Method :	EPA 624.1	Reporting Units : mg/L
QC Batch ID : Qb22092601	Created Date :	09/23/22	Created By :	Rajeev	
Samples in This QC Batch :	22092226.01,02				

QC Type: Method Blank									
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual		
1,2-Dichloroethane-d4(surr	17060-07-0	100	%	1.00					
Toluene-d8(surr)	2037-26-5	96.9	%	1.00					
p-Bromofluorobenzene(surr	460-00-4	106	%	1.00					

QC Type: LCS and LCSD													
	LCS	LCS	LCS	LCSD	LCSD	LCSD		RPD	%Recovery	12133			
Parameter	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual			
1,1-Dichloroethylene	0.04	0.0403	101	0.04	0.0407	102	1	30	82.6-123				
Benzene	0.04	0.0402	100	0.04	0.0408	102	1.6	30	89.9-118				
Chlorobenzene	0.04	0.0407	102	0.04	0.0416	104	2.3	30	91.5-114				
Hexachlorobutadiene	0.04	0.0400	100	0.04	0.0412	103	2.9	30	60-140				
Toluene	0.04	0.0404	101	0.04	0.0411	103	1.6	30	89.6-118				
Trichloroethylene	0.04	0.0414	103	0.04	0.0417	104	0.8	30	84.2-115				
1,1,1-Trichloroethane	0.04	0.0411	103	0.04	0.0406	101	1.2	30	83.2-127				
1,1,2,2-Tetrachloroethane	0.04	0.0377	94.3	0.04	0.0396	99	4.8	30	83.1-121				
1,1,2-Trichloroethane	0.04	0.0398	99.6	0.04	0.0416	104	4.4	30	82.1-122				
1,1-Dichloroethane	0.04	0.0396	99	0.04	0.0398	99.6	0.5	30	84.8-123				
1,2-Dibromoethane	0.04	0.0396	99	0.04	0.0421	105	6.1	30	87.1-119				
1,2-Dichlorobenzene	0.04	0.0400	99.9	0.04	0.0410	102	2.6	30	91.1-115				
1,2-Dichloroethane	0.04	0.0403	101	0.04	0.0413	103	2.4	30	82.8-123				
1,2-Dichloropropane	0.04	0.0399	99.7	0.04	0.0403	101	1	30	87.9-122				
1,3-Dichlorobenzene	0.04	0.0402	100	0.04	0.0413	103	2.8	30	91.7-114				
1,4-Dichlorobenzene	0.04	0.0405	101	0.04	0.0409	102	0.9	30	91.4-115				
МЕК	0.04	0.0388	97.1	0.04	0.0386	96.5	0.6	30	59.2-133				
Acrolein	0.08	0.0710	88.7	0.08	0.0712	89	0.3	30	67.4-118				
Acrylonitrile	0.04	0.0323	80.7	0.04	0.0328	82.1	1.6	30	69-129				
Bromochloromethane	0.04	0.0369	92.2	0.04	0.0373	93.3	1.2	30	70.8-133				
Bromodichloromethane	0.04	0.0402	101	0.04	0.0412	103	2.4	30	86.3-122				
Bromoform	0.04	0.0400	100	0.04	0.0420	105	4.9	30	81.6-120				
Bromomethane	0.04	0.0417	104	0.04	0.0433	108	3.8	30	58.1-150				
Carbon tetrachloride	0.04	0.0418	104	0.04	0.0419	105	0.3	30	85.6-130				
Chloroethane	0.04	0.0430	107	0.04	0.0440	110	2.4	30	77.5-130				
Chloroform	0.04	0.0408	102	0.04	0.0412	103	0.9	30	85.4-121				
Chloromethane	0.04	0.0349	87.1	0.04	0.0358	89.5	2.7	30	71.4-131				
cis-1,3-Dichloropropene	0.04	0.0399	99.7	0.04	0.0412	103	3.3	30	89.6-118				
Dibromochloromethane	0.04	0.0404	101	0.04	0.0420	105	3.9	30	83.8-118				
Ethylbenzene	0.04	0.0398	99.6	0.04	0.0405	101	1.6	30	91.1-115				
Methylene chloride	0.04	0.0370	92.4	0.04	0.0375	93.6	1.5	28	60-140				
Tetrachloroethylene	0.04	0.0418	105	0.04	0.0411	103	1.8	30	70-130				
trans-1,2-Dichloroethylene	0.04	0.0400	100	0.04	0.0403	101	0.8	30	85.3-123				

Refer to the Definition page for terms.



#### Job ID : 22092226

Date : 10/25/2022

Analysis : Volatile Orga	nic Compounds		Method :	EPA 624.1	Reporting Units : mg/L
QC Batch ID : Qb22092601	Created Date :	09/23/22	Created By :	Rajeev	
Samples in This QC Batch	22092226.01,02				

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
trans-1,3-Dichloropropene	0.04	0.0403	101	0.04	0.0415	104	3	30	84.7-119	
Vinyl Chloride	0.04	0.0355	88.7	0.04	0.0343	85.8	3.4	30	78.5-121	
2-chloroethylvinyl Ether	0.08	0.0923	115	0.08	0.0957	120	3.7	30	32.6-169	
TTHMs	0.16	0.1614	101	0.16	0.1664	104	3	30	60-140	

QC Type: MS and MSD						125 3.40	aost urbite	111120	and the second		
QC Sample ID: 22092	234.01										
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	0.0389	97.3						74.5-129	
2-chloroethylvinyl Ether	BRL	0.08	BRL							10-239	M2
Benzene	BRL	0.04	0.0402	100						88.4-143	
Chlorobenzene	BRL	0.04	0.0404	101						88-112	
Hexachlorobutadiene	BRL	0.04	0.0393	98.3				3		60-140	
Toluene	BRL	0.04	0.0400	100						47-150	
Trichloroethylene	BRL	0.04	0.0403	101						78.8-117	
1,1,1-Trichloroethane	BRL	0.04	0.0372	93						74.1-132	
1,1,2,2-Tetrachloroethane	BRL	0.04	0.0470	118						92.5-151	
1,1,2-Trichloroethane	BRL	0.04	0.0457	114		4				83.1-143	
1,1-Dichloroethane	BRL	0.04	0.0379	94.7						74.6-127	
1,2-Dibromoethane	BRL	0.04	0.0470	118						90-133	
1,2-Dichlorobenzene	BRL	0.04	0.0403	101						88.7-115	
1,2-Dichloroethane	BRL	0.04	0.0447	112						59-155	
1,2-Dichloropropane	BRL	0.04	0.0413	103						84.1-128	
1,3-Dichlorobenzene	BRL	0.04	0.0395	98.8						84.5-114	
1,4-Dichlorobenzene	BRL	0.04	0.0396	99						83.6-115	
MEK	BRL	0.04	0.0532	133						26.5-198	
Acrolein	BRL	0.08	0.0797	99.6					1 1	40-160	
Acrylonitrile	BRL	0.04	0.0468	117						40-160	
Bromochloromethane	BRL	0.04	0.0387	96.8						60-140	
Bromodichloromethane	BRL	0.04	0.0416	104						79.2-143	
Bromoform	BRL	0.04	0.0481	120						67.2-167	
Bromomethane	BRL	0.04	0.0497	124						10-242	
Carbon tetrachloride	BRL	0.04	0.0449	112		-				78.7-137	
Chloroethane	BRL	0.04	0.0448	112						68.3-134	
Chloroform	BRL	0.04	0.0401	100						69.2-138	
Chloromethane	BRL	0.04	0.0342	85.4						10-273	
cis-1,3-Dichloropropene	BRL	0.04	0.0403	101						76.9-129	
Dibromochloromethane	BRL	0.04	0.0444	111						65.1-149	
Ethylbenzene	BRL	0.04	0.0391	97.8						64.3-133	

ab-q213-0321 Refer to the Definition page for terms.



#### Job ID : 22092226

Analysis : Volatile Organi	c Compounds		Method :	EPA 624.1	Reporting Units : mg/L
QC Batch ID : Qb22092601	Created Date :	09/23/22	Created By :	Rajeev	
Samples in This QC Batch :	22092226.01,02				

QC Type: MS and MSD QC Sample ID: 220922	234.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Methylene chloride	BRL	0.04	0.0377	94.3						25.1-195	
Tetrachloroethylene	BRL	0.04	0.0379	94.6						64-138	
trans-1,2-Dichloroethylene	BRL	0.04	0.0386	96.4						79.6-126	
trans-1,3-Dichloropropene	BRL	0.04	0.0426	107						76.2-134	
Vinyl Chloride	BRL	0.04	0.0358	89.5						54.7-139	
TTHMs	BRL	0.16	0.1742	109						60-140	



Job ID : 22092226

Date: 10/25/2022

Analysis : Metals by	ICP/MS		Method :	EPA 200	.8 Rep	orting Units	: mg/L
QC Batch ID : Qb22092	627 Created D	Date : 09/23/22	Created By :	BRena			
Samples in This QC Bat	ch : 22092226.	01,02					
Digestion :	PB22092344	Prep Method : EPA 200.8	Prep	Date :	09/23/22 08:02	Prep By :	JYou

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Aluminum	7429-90-5T	< MDL	mg/L	1	0.001	0.001	
Antimony	7440-36-0	< MDL	mg/L	1	0.00025	0.0002	
Arsenic	7440-38-2T	< MDL	mg/L	1	0.00025	0.0001	
Barium	7440-39-3T	< MDL	mg/L	1	0.0005	0.0004	
Beryllium	7440-41-7	< MDL	mg/L	1	0.00025	0.0001	
Cadmium ,	7440-43-9	< MDL	mg/L	1	0.00025	0.0001	
Chromium	7440-47-3T	< MDL	mg/L	1	0.00025	0.0001	
Copper	7440-50-8	< MDL	mg/L	1	0.0005	0.0004	
Lead	7439-92-1T	< MDL	mg/L	1	0.00025	0.0001	
Nickel	7440-02-0	< MDL	mg/L	1	0.00025	0.0001	
Selenium	7782-49-2	< MDL	mg/L	1	0.001	0.0007	
Silver	7440-22-4	< MDL	mg/L	1	0.0005	0.0005	
Thallium	7440-28-0	< MDL	mg/L	1	0.00025	0.0001	
Zinc	7440-66-6T	< MDL	mg/L	1	0.002	0.0011	

QC Type: LCS and LCS	D									
Parameter	LCS	LCS	LCS	LCSD	LCSD	LCSD	DDD	RPD Ctrll imit	%Recovery	Qual
Aluminum		0.0E00	70 REC		0.0494	70 Rec	RPD			Qual
	0.05	0.0500	100	0.05	0.0404	90.0	5.5	20	05-115	
Antimony	0.05	0.0535	107	0.05	0.0529	106	1.1	20	85-115	
Arsenic	0.05	0.0494	98.9	0.05	0.0489	97.8	1.1	20	85-115	
Barium	0.05	0.0492	98.3	0.05	0.0493	98.6	0.3	20	85-115	
Beryllium	0.05	0.0483	96.6	0.05	0.0478	95.6	1	20	85-115	
Cadmium	0.05	0.0505	101	0.05	0.0498	99.5	1.4	20	85-115	
Chromium	0.05	0.0518	104	0.05	0.0504	101	2.7	20	85-115	
Copper	0.05	0.0522	104	0.05	0.0515	103	1.4	20	85-115	
Lead	0.05	0.0501	100	0.05	0.0500	100	0.3	20	85-115	
Nickel	0.05	0.0518	104	0.05	0.0503	101	3	20	85-115	
Selenium	0.05	0.0482	96.5	0.05	0.0480	95.9	0.5	20	85-115	
Silver	0.05	0.0507	101	0.05	0.0502	100	1.1	20	85-115	
Thallium	0.05	0.0503	101	0.05	0.0501	100	0.4	20	85-115	
Zinc	0.05	0.0501	100	0.05	0.0499	99.7	0.4	20	85-115	

QC Type: MS a OC Sample ID:	and MSD 22092131.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
										ab-o	213-0321

Refer to the Definition page for terms.



Job ID : 22092226

Date : 10/25/2022

Analysis :	Metals by ICP/	MS		Method :	EPA 200.8	Reporting Units : mg/L	-
QC Batch ID	: Qb22092627	Created Date :	09/23/22	Created By :	BRena		
Samples in Tl	his QC Batch :	22092226.01,02					

OC Type: MS and MSD		Particular States		S. 18 S. 1993	·····································	Support Party and	liter to the Constant		and a straight hit	and a second second	
QC Sample ID: 22092	131.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Aluminum	BRL	0.1	0.152	152						70-130	M1
Antimony	BRL	0.1	0.111	111						70-130	
Arsenic	BRL	0.1	0.108	108						70-130	
Barium	BRL	0.1	0.125	125						70-130	
Beryllium	BRL	0.1	0.100	100						70-130	
Cadmium	BRL	0.1	0.103	103						70-130	
Chromium	BRL	0.1	0.106	106						70-130	
Copper	BRL	0.1	0.110	110						70-130	
Lead	BRL	0.1	0.107	107						70-130	
Nickel	BRL	0.1	0.139	139						70-130	M1
Selenium	BRL	0.1	0.0959	95.9						70-130	
Silver	BRL	0.1	0.103	103						70-130	
Thallium	BRL	0.1	0.104	104						70-130	
Zinc	BRL	0.1	0.147	147						70-130	M1



#### Job ID : 22092226

# Analysis : CVAFS Method : EPA 1631E Reporting Units : ng/L QC Batch ID : Qb220927119 Created Date : 09/27/22 Created By : BRena Samples in This QC Batch : 22092226.02 Prep Method : EPA 1631E Prep Date : 09/26/22 11:00 Prep By : BRena

QC Type: Method B	lank						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Mercury	7439-97-6T	< MDL	ng/L	1	0.25	0.0419	

QC Type:	LCS and LCS	D									
Parameter		LCS Sok Added	LCS Result	LCS	LCSD Sok Added	LCSD Result	LCSD	PPD	RPD Ctrll imit	%Recovery	Qual
rurunceer		Spit Added	resure	70 1444	Spic Added	Result	70 1100	IN D	Cultinu	Cultinit	Quai
Mercury		5	5.19	104	5	5.04	101	2.9	24	77-123	

QC Type: MS a	nd MSD							S. 1. 34			19/ 19 ST
QC Sample ID:	22092284.02										
Paramotor	Sample	MS Sok Addod	MS	MS % Boc	MSD Sok Addod	MSD	MSD	חתם	RPD Ctrll imit	%Rec	Qual
raiameter	Result	Spk Audeu	Result	70 REC	Spk Audeu	Result	70 REC	RPD	Current	CUILIMIL	Qual
Mercury	5.96	5	11.2	105	5	10.7	94.8	4.6	24	71-125	



Job ID : 22092226

Analysis :			Method :	SM 3500Cr B	Reporting Units : mg/L
QC Batch ID : Qb22092748	Created Date :	09/27/22	Created By :	RPadmanaban	
Samples in This QC Batch :	22092226.01,02				

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Chromium, Hexavalent	18540-29-9	< MDL	mg/L	1	0.001	0.0005	

QC Type: Duplicate						
QC Sample ID: 220	92223.01					
Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit	Qual
Chromium, Hexavalent	BRL	BRL		0	20	

QC Type: LCS and LCS	SD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Chromium, Hexavalent	0.02	0.020	100	0.02	0.020	100	0	20	86.8-108	

QC Type: MS and MSD QC Sample ID: 220922	223.02										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Chromium, Hexavalent	BRL	0.02	0.006	30	0.02	0.007	35	15.4	20	80-120	M2



Job ID : 22092226

Analysis : CVA	FS		Method :	EPA 16:	B1E Repor	ting Units : ng/L
QC Batch ID : Qb2	220928122 Create	d Date : 09/28/22	Created By :	BRena		
Samples in This Q	<b>C Batch :</b> 220922	26.01				
Digestion :	PB22092845	Prep Method : EPA 163	IE Pre	p Date :	09/27/22 10:00 P	rep By : BRena

QC Type: Method B	lank						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Mercury	7439-97-6T	< MDL	ng/L	1	0.25	0.0419	

QC Type: LCS and LCS	SD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Mercury	5	5.20	104	5	5.18	104	0.4	24	77-123	

QC Type: MS a	nd MSD		1205.00					12 Statistics			
QC Sample ID:	22092226.01										
Davaarahau	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	
Parameter	Result	<i>Spk</i> Added	Result	% Rec	<i>Spk</i> Added	Result	% Rec	RPD	CtriLimit	CtriLimit	Qual
Mercury	16.5	5	21.8	106	5	21.4	98	1.8	24	71-125	



Job ID : 22092226

Analysis : Cyanio	de, Amen	able Ultra Low		Method	: SM 450	OCN-CG Rep	porting Units	: mg/L
QC Batch ID : QB22	0928125	Created Date	: 09/28/22	Created	By : Srijan			
Samples in This QC	Batch :	22092226.01,02	2					
Sample Preparation	: PB220	)92846 <b>Pre</b>	p Method : SM	4500CN-CG	Prep Date :	09/28/22 13:00	Prep By :	Srijan

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Oual
Cyanide, Amenable	57-12-5	< MDL	mg/L	1	0.002	0.001	
Cyanide, Available	57-12-5	< MDL	mg/L	1	0.002	0.001	

QC Type: LCS and L	CSD			的复数			And seller			
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Cyanide, Amenable	0.02	0.020	100	0.02	0.020	100	0		90-110	
Cyanide, Available	0.02	0.020	100	0.02	0.020	100	0		90-110	



Job ID : 22092226

Analysis : Poly	chlorinated Bipheny	s	Method : EPA 60	8.3 Reporting Units	: ug/L
QC Batch ID : Qb2	2092826 Created	Date : 09/28/22	Created By : PSunka	а	
Samples in This Q	<b>C Batch :</b> 22092226	.01,02			
Extraction :	PB22092734	Prep Method : EPA 608.3	3 Prep Date :	09/27/22 08:30 Prep By :	Msoria

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qua
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	69	%	1.00			
Tetrachloro-m-xylene(surr)	877-09-8	110	%	1.00			

QC Type: LCS and LCS	D	Sec. 1								
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Aroclor 1016	2	2.437	122	2	2.609	130	6.8	18	53.7-136	
Aroclor 1260	2	2.326	116	2	2.701	135	14.9	18	57.9-146	
Total PCBs	4	4.763	119	4	5.301	133	10.7	18	51.7-138	

QC Type: MS an QC Sample ID:	nd MSD 22092223.02										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Aroclor 1016	BRL	2	2.32	116						50-140	
Aroclor 1260	BRL	2	2.02	101						10-140	
Total PCBs	BRL	4	4.34	108						50-140	



Job ID : 22092226

Analysis : Chlor	inated Herbicides		Method :	EPA 615	Reporting Units : ug/L
QC Batch ID : Qb2	2092838 Created	Date : 09/28/22	Created By :	PSunkara	1
Samples in This QC	Batch : 22092226	5.01,02			
Extraction :	PB22092654	Prep Method : EPA 615	Pre	p Date :	09/26/22 08:30 Prep By : Msoria

QC Type: Method Blar	ık						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Pentachlorophenol	87-86-5	< MDL	ug/L	1.00	0.019	0.02	
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	78.7	%	1.00			

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Pentachlorophenol	0.4	0.28	70	0.4	0.26	65	7.4	31	50-150	
2,4,5-TP	4	3.50	87.6	4	3.30	82.4		32	35-125	
2,4-D	4	3.98	99.5	4	3.72	93.1		29	29-124	

QC Type: MS an QC Sample ID:	nd MSD 22092226.	02										
Parameter	Sa Re	mple esult	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Pentachlorophenol	6	BRL	0.4	0.30	75						50-150	
2,4,5-TP	E	BRL	4	2.65	66.2						35-125	
2,4-D	E	BRL	4	3.07	76.8						29-124	



#### Job ID : 22092226

Analysis :	Phenolics (Total Phenols)		Method :	EPA 420.4	Reporting Units : mg/L	
QC Batch ID	: Qb220929102	Created Date :	09/27/22	Created By :	Srijan	

Samples in This QC Batch : 22092226.01,02

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Phenols	108-95-2	< MDL	mg/L	1	0.01	0.00449	

QC Type:	LCS and LCS	D									
		LCS	LCS	LCS	LCSD	LCSD	LCSD		RPD	%Recovery	
Parameter	SA HEIMERS STRAKE	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Phenols		0.1	0.0998	99.8	0.1	0.1018	102	2	20	90-110	

QC Type: MS and I	MSD										
QC Sample ID: 22	2092140.02										
Darameter	Sample	MS Split Addad	MS	MS % Dec	MSD	MSD	MSD	000	RPD Ctrll imit	%Rec	Qual
Parameter	Result	эрк Аййей	Result	% Rec	<i>Spk</i> Added	Result	% Rec	RPD	CtriLimit	CtriLimit	Qual
Phenols	BRL	0.1	0.0979	97.9	0.1	0.1006	101	2.7	10	90-110	



Job ID : 22092226

Analysis : Cyanide, Total Ultra Low	Method : SM 450	OCNC/E Reporting Units : mg/L
QC Batch ID : Qb220929141 Created Date : 09/28/22	Created By : Srijan	
Samples in This QC Batch : 22092226.01,02		
Sample Preparation : PB22092953 Prep Method : 1	SM 4500CNC/E Prep Date :	09/28/22 13:00 Prep By : Srijan

QC Type: Method Bla	ank						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Cyanide	57-12-5	< MDL	mg/L	1	0.002	0.001	

QC Type: Dupl	icate					
QC Sample ID:	22092223.02					
Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit	Qual
Cyanide	0.011	0.011		0		

QC Type: LCS and LC	SD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Cyanide	0.02	0.020	100	0.02	0.020	100	0		90-110	

QC Type: MS a	Ind MSD					24.425		TUN PARA			
QC Sample ID:	22092223.02										the second
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Cyanide	0.011	0.02	0.0285	87.5						80-120	



Job ID : 22092226

Date: 10/25/2022

Analysis :	Organochlorine	Pesticides		Method :	EPA 608	3.3 Rep	orting Units	: ug/L
QC Batch ID	: Qb220929158	Created Date	: 09/28/22	Created By :	KMedina			
Samples in Tl	his QC Batch :	22092226.01,0	2					
Extraction :	PB220	)92735 <b>Pr</b>	p Method : EPA 608.3	Pre	p Date :	09/27/22 09:30	Prep By :	Msoria

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Dicofol	115-32-2	< MQL	ug/L	1.00	0.05		
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	
а-ВНС	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	
Hexachlorobenzene	118-74-1	< MQL	ug/L	1.00	0.01		
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	87	%	1.00			
Decachlorobiphenyl(surr)	2051-24-3	73.3	%	1.00			

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
4,4-DDD	0.2	0.204	102	0.2	0.232	116	12.8	24	40.8-141	
4,4-DDE	0.2	0.193	96.5	0.2	0.218	109	12.2	21	30-145	
4,4-DDT	0.2	0.202	101	0.2	0.224	112	10.1	30	34.3-134	
a-BHC	0.2	0.200	100	0.2	0.224	112	11.1	25	37-125	
Aldrin	0.2	0.196	98.3	0.2	0.219	110	10.8	23	42-129	
b-BHC	0.2	0.208	104	0.2	0.232	116	11.1	24	38.5-133	
d-BHC	0.2	0.220	110	0.2	0.262	131	17.7	20	26.5-140	
Dieldrin	0.2	0.196	98	0.2	0.222	111	12.4	21	40.7-133	
Endosulfan I	0.2	0.167	83.5	0.2	0.188	93.8	11.8	24	45-124	

ab-q213-0321

Refer to the Definition page for terms.


Job ID : 22092226

Analysis : Organ	nochlorine I	Pesticides		Method :	EPA 608.3	Reporting Units : ug/L
QC Batch ID : Qb2	20929158	Created Date :	09/28/22	Created By :	KMedina	
Samples in This QC	Batch :	22092226.01,02				

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Endosulfan II	0.2	0.182	90.8	0.2	0.205	103	12.2	21	10-114	
Endosulfan sulfate	0.2	0.203	102	0.2	0.230	115	12.5	20	45-131	1
Endrin	0.2	0.192	96.3	0.2	0.217	109	12	24	35.1-136	
Endrin aldehyde	0.2	0.191	95.5	0.2	0.213	107	10.9	33	33.9-130	
g-BHC	0.2	0.209	105	0.2	0.240	120	13.8	25	39-132	
Heptachlor	0.2	0.194	97.3	0.2	0.214	107	9.6	20	34.6-134	
Heptachlor epoxide	0.2	0.193	96.5	0.2	0.216	108	11.2	24	39.2-135	
Methoxychlor	0.2	0.191	95.5	0.2	0.216	108	12.3	24	37.7-143	

QC Type: MS and MSD							Sec. Sec.	de la la			
QC Sample ID: 22092	226.02										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
4,4-DDD	BRL	0.2	0.174	86.8						31-141	
4,4-DDE	BRL	0.2	0.120	60						30-145	
4,4-DDT	BRL	0.2	0.022	10.8						25-160	M2
a-BHC	BRL	0.2	0.172	85.8						37-140	
Aldrin	BRL	0.2	0.120	60						42-140	
b-BHC	BRL	0.2	0.212	106						17-147	
d-BHC	BRL	0.2	0.222	111						19-140	
Dieldrin	BRL	0.2	0.168	84						36-146	
Endosulfan I	BRL	0.2	0.144	72						45-153	
Endosulfan II	BRL	0.2	0.159	79.5						10-190	
Endosulfan sulfate	BRL	0.2	0.196	98.3						26-144	
Endrin	BRL	0.2	0.154	77						30-147	
Endrin aldehyde	BRL	0.2	0.166	82.8	- K					60-140	
g-BHC	BRL	0.2	0.250	125						32-140	
Heptachlor	BRL	0.2	0.148	74.3						34-140	
Heptachlor epoxide	BRL	0.2	0.158	78.8						37-142	
Methoxychlor	BRL	0.2	0.0730	36.5						60-140	M2



Job ID : 22092226

Analysis : Carba	mate and Urea Pes	ticides	Method :	EPA 632	Reporting Units : (	ug/L
QC Batch ID : Qb22	20929170 Created	Date : 09/29/22	Created By :	Skannan		
Samples in This QC	Batch : 2209222	5.01,02				
Extraction :	PB22092808	Prep Method : EPA 632	Pre	p Date: 09	/27/22 12:00 Prep By : Ms	oria

QC Type: Method Bla	ink						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Carbaryl	63-25-2	< MDL	ug/L	1	0.5	0.76	
Diuron	330-54-1	< MDL	ug/L	1	0.5	0.86	

QC Type:	LCS and LCS	D	i serek			Name	a The said				
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Carbaryl		3	1.51	50.3	2.5	1.40	56	7.6	30	77.7-118	L2
Diuron		3	3.54	118	2.5	2.72	109	26.2	30	71.4-129	

QC Type: MS ai	nd MSD										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Carbaryl	BRL	3	N/A	N/A							M6
Diuron	BRL	3	2.76	92							



Job ID : 22092226

Analysis : Orga	nophospho	rus Pesticides		Method :	EPA 614	Rep	porting Units	: ug/L
QC Batch ID : Qb2	2092943	Created Date	09/28/22	Created By :	PSunkara	L.		
Samples in This QC	Batch :	22092226.01,02						
Extraction :	PB220	92809 Prep	Method : SW-846	3510C Pre	p Date :	09/27/22 12:00	Prep By :	Msoria

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	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		48.6	%	1.00			

QC Type: LCS and LCS	D		-							
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Chlorpyrifos	0.6	0.6725	112	0.6	0.6685	111	0.6	26	40-152	
Demeton	0.6	0.0055	0.917	0.6	0.0055	0.917	0	25	D-100	
Diazinon	0.6	0.723	121	0.6	0.722	120	0.1	28	64-123	
Guthion	0.6	0.414	69	0.6	0.402	67	2.9	31	31-143	-
Malathion	0.6	0.7165	119	0.6	0.711	119	0.8	26	34-176	
Parathion	0.6	0.551	91.8	0.6	0.5505	91.8	0.1	38	50-133	

QC Type: MS and MS	D										
QC Sample ID: 2209.	Sample	MS	MC	MC	MCD	MCD	MCD		000	0/ Doc	
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Chlorpyrifos	BRL	0.6	0.6315	105						40-152	
Demeton	BRL	0.6	0.008	1.33						D-100	
Diazinon	BRL	0.6	0.722	120						64-123	
Guthion	BRL	0.6	0.4665	77.8						31-143	
Malathion	BRL	0.6	0.6565	109						34-176	
Parathion	BRL	0.6	0.7025	117						50-133	



Analysis :					Method	:	ASTM D	7065-11 Re	porting Units	: ug/L
QC Batch ID : Qb221	01989	Created I	Date :	09/24/22	Created	By :	MShah			
Samples in This QC B	atch :	22092226.	01,02							
Extraction :	PB22	092414	Prep	Method : ASTM D7	065-11	Pre	p Date :	09/24/22 08:30	Prep By :	MMuteen

QC Type: Method Blank	ĸ						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Nonyl Phenol	25154-52-3	< MQL	ug/L	1.00	5		
Terphenyl-d14(surr)		93	%	1.00			

QC Type:	LCS and LCS	D	a fands	Sec. St.							
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Nonyl Pheno	bl	50	46.25	92.5	50	48.49	97	4.7	13	56-112	

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5. Project # 6. I	Project Name /	Location				F	PV	A P	۵.	AG	VOA	AG	14. Cor	tainers*
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A&B Labs/Dharman	St I	When we	19th	9/22	22	bo t	נ־רס		110			l, 28: Pesi	Cu,F	n,Ni,Se,Ag,TI,Z
	10. S	ampling	11.	12. 1	Aatrix	0.01	OhT ,8	noinA	eldene			osu) youna Cl' bC	<b>_</b>	nions: Nitrate, Fluoride
9. Sample ID &	Use					1 16:	3.00 <u>9</u>	' 'MO	emA_ stoT			_jzs qeor theO		
Description	Only Date	Time	Grab	Waste Water	Vater	13. Tot	sisism.		Syanide_	slonsd	20/	SVOC, P SvOC, P Suron &		Comments
Influent ()	140 9/81-2	2211:00	×			17	×	×	×	×	×	×		
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Man Cu /V lan	9239	22 11:38	F	Nor	dry	g				0/6	268	11:38		
3) Whenlicke	9/22/2	23.00	~ att	uller	5					2/6	n/n	15:00	QT22	091313
	_	_				F								
* Containers: VOA- 40 ml vial	throw of	AIG-AIT	Iber/Glass	s 1 Liter			Presel	rvative	0-0 ::	N H	HCI HCI	N- HNO3	` Ù	ν N N N
BILL OF LADING/TRACKING #							METH		F SH	PMEI	T	v-Oulei	7	N-IRY
			OLOIVI I	11 01 UL			i i					Samples will	ha disnasad af	office 30 dave A&B
A&B CANNUL ACCEPT VERBAL CHAI MANAGER.	NGES. PLEASE F	AX WKILLEN (	CHANGES	10 /13 45	1-6091 OK	EMAIL	THEN	EWC	01.00	YOUR	PROJE		is the right to re	alier ou uays. Acco turn samples.
							Page 4	41 of 4	0					

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# Sample Condition Checklist



A8	AB JobID : 22092226 Date F	teceived : 09/22/2022 Time Received : 3:0	OPM		
Cli	ient Name : Port Arthur, City of				
Te	mperature : 3.0°C Sampl	e pH : <2 Metals, Phenols >12 CN			
Th	ermometer ID : IR4 pH Pap	per ID : 98538			
Pe	erservative :				
		Check Points	Yes	No	N/A
1.	Cooler Seal present and signed.			х	
2.	Sample(s) in a cooler.		х		
з.	If yes, ice in cooler.		х		
4.	Sample(s) received with chain-of-custody.		х		
5.	C-O-C signed and dated.		х		
6.	Sample(s) received with signed sample custody	seal.		х	
7.	Sample containers arrived intact. (If No comme	nt)	х		
8.	Water Soil Liquid Sludge S Matrix: 🔽 🗌 🗌				
9.	Samples were received in appropriate container	(s)	х		
10.	Sample(s) were received with Proper preservat	ve	х		
11.	All samples were tagged or labeled.		х		
12.	Sample ID labels match C-O-C ID's.		x		
13.	Bottle count on C-O-C matches bottles found.		х		
14.	Sample volume is sufficient for analyses request	ed.	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				х

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

CN: NaOH+NaAsO2 ~EV 9/22/2022

ab-s005-0321

# Laboratory Analysis Report

Total Number of Pages: 23

Job ID: 22120794



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

#### Client Project Name : Main Plant - 6200 Proctor Street Extension

Report To :	Client Name:	Port Arthur, City of
	Attn:	Floyd Riley
	Client Address:	444 4th Street, Annex Building, 1st Floor
	City, State, Zip:	Port Arthur, Texas, 77640

P.O.#.: 22207905 Sample Collected By: Allison Diamond Date Collected: 12/08/22

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

Client Sample ID	Matrix	A&B Sample ID
Effluent	Water	22120794.01
Effluent	Water	22120794.02



f-f-	
Released By:	Ashley Arnett
Title:	Project Manager
Date:	12/15/2022

TNI BORATORI

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

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 : 12/08/2022 17:00

Page 1 of 23

### LABORA, JRY TERM AND QUALIFIER DEFINITION REPORT

Job ID: 22120794

Date: 12/15/2022

#### General Term Definition

LABS

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	т	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit
Qualifier Defi	nition		
J	Estimation. Below calibration range but above MDL.		
M1	Matrix Spike and/or Matrix Spike Duplicate recovery randomly selected as QC for this batch was not part samples."	is above laborato of your project.  T	bry control limits due to matrix interference. "The sample Therefore, this sample matrix is not applicable to your project
M2	Matrix Spike and/or Matrix Spike Duplicate recovery i randomly selected as QC for this batch was not part of samples."	s below laborato of your project. T	ry control limits due to matrix interference."The sample Therefore, this sample matrix is not applicable to your project

#### LABORATORY TEST RESULTS

Job ID: 22120794

Date 12/15/2022

Client Name:	Port Arthur, City of							A	ttn: Floyd Riley	
Project Name:	Main Plant - 6200 Pro	ctor Street I	Extension							
Client Sample I Date Collected: Time Collected Other Informat	ID: Effluent 12/08/22 : ion:					Job Sar Sample % Mois	mple ID: Matrix ture	221207 Water	<b>7</b> 94.01	
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
SM 2540D	Total Suspended Solids									
	TSS	35.93	mg/L	0.667	1.5	1.67			12/09/22 16:20	RP
EPA 300.0	Anions									
	Chloride	148.18	mg/L	20.00	0.360	2			12/09/22 19:38	SKM
	Sulfate	68.88	mg/L	20.00	0.200	2			12/09/22 19:38	SKM
SM 4500CN-CG	Cyanide, Amenable Ultra Low	,								
	Cyanide, Amenable	<0.001	mg/L	1	0.001	0.002			12/09/22 15:21	SKC
	Cyanide, Available	<0.001	mg/L	1	0.001	0.002			12/09/22 15:21	SKC
SM 4500CNC/E	Cyanide, Total Ultra Low									
	Cyanide	0.0037	mg/L	1	0.001	0.002			12/09/22 15:21	SKC
5M 4500CN-I										
	Cyanide, Free <sup>2</sup>	<0.001	mg/L	1	0.001	0.01			12/09/22 12:41	SKC
PA 350.1										
	Ammonia as N	15.27	mg/L	5	0.07	0.5			12/12/22 15:19	SKC
5M 3500Cr B										
	Chromium, Hexavalent	<0.0005	mq/L	1	0.0005	0.00100			12/08/22 17:06	YSK
M 3500Cr B									,,	
J-1 3300Cl D	Chromium, Trivalent <sup>2</sup>	< 0.001	ma/L	1		0.00100			12/08/22 17:06	YSK
DA 351 2	Total Kieldahl Nitrogen	Conversion of the second							,,	
FA JJ1.2	TKN	20.09	ma/l	5	0.12	1			12/09/22 16:30	SKC
M 52100	Carbonaccours Biochomical Ov	vaan Domo	ng, c		0.12	-			12/05/22 10:50	SILC
1 JZ10D		6 74	ma/l	1	2				12/00/22 07.00	CD
DA 16215	CLOC	0.21	ing/c		2				12/03/22 07:00	JF
PA 1631E	CVAF5 Morcupy	20.9	ng/l	1	0.0410	0.25			12/12/22 15.56	DDD
		29.0	ng/L	 	0.0419	0.23			12/12/22 15:50	DKK
PA 200.8	Metals by ICP/MS	0 00070	ma/l	1	0.00021	0.00025			12/14/22 17:12	000
	Anumony	0.00079	mg/L	1	0.00031	0.00025			12/14/22 17:12	BRR
	Benyllium	<9E-05	mg/L	1	0.00005	0.00025			12/10/22 14:30	BDD
	Cadmium	0.00007	ma/l	1	0.00005	0.00025		1	12/10/22 14:30	RDD
	Chromium	0.00083	mg/L	1	0.00003	0.00025			12/10/22 14:30	BRR
	Copper	0.00771	mg/L	1	0.00009	0.00050			12/10/22 14:30	BRR
	Lead	0.00105	mg/L	1	0.00019	0.00025			12/10/22 14:30	BRR
	Nickel	0.00453	mg/L	1	0.00025	0.00025			12/10/22 14:30	BRR
	Selenium	0.00094	ma/l	1	0.0006	0.00100		1	12/10/22 14.30	BRR

ab-q212-0321

### LABORATORY TEST RESULTS

Job ID: 22120794

**G**.

Date 12/15/2022

Client Name:		Port Arthur, City of	a and the second						۵	ttn: Floyd Riley	
Project Name:		Main Plant - 6200 Proc	ctor Street Ex	tension					-	ittin. Hoya Micy	
Client Sample Date Collected Time Collected Other Informa	ID: J: d: htion:	Effluent 12/08/22					Job Sar Sample % Mois	nple ID: Matrix ture	221207 Water	794.01	
Test Method	Param	neter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit	Q	Date Time	Analyst
EPA 200.8	Metals	s by ICP/MS									
	Silver		0.00006	mg/L	1	0.00006	0.00050		J	12/10/22 14:30	BRR
	Thalliu	um	<3E-05	mg/L	1	0.00003	0.00025			12/10/22 14:30	BRR
	Zinc		0.08253	mg/L	1	0.00188	0.002			12/10/22 14:30	BRR
EPA 625.1											
	m- & j	p-Cresol <sup>2</sup>	< 0.00408	mg/L	1.02	0.00408	0.01			12/09/22 17:37	MS
	2,4,6-	Tribromophenol(surr)	54.3	%	1.02		19-122			12/09/22 17:37	MS
	2-Fluo	robiphenyl(surr)	70.3	%	1.02		30-115			12/09/22 17:37	MS
	2-Fluo	rophenol(surr)	29	%	1.02		15-115			12/09/22 17:37	MS
	Nitrob	enzene-d5(surr)	67.2	%	1.02		23-120			12/09/22 17:37	MS
	Pheno	l-d6(surr)	29.7	%	1.02		10-130			12/09/22 17:37	MS
	p-Terp	henyl-d14(surr)	51.7	%	1.02		18-137			12/09/22 17:37	MS

ab-q212-0321

#### LABORATORY TEST RESULTS

Job ID : 22120794

Date 12/15/2022

Client Name:	Port Arthur, City of							Attn: Floyd Riley	
Project Name	Main Plant - 6200 Pro	ctor Street	Extension						
Client Sample Date Collected Time Collected Other Informa	ID: Effluent 1: 12/08/22 1: 13:00 tion:					Job Samp % Mo	ample ID: 22120 le Matrix Water isture	)794.02 -	
Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Reg Limit Q	Date Time	Analyst
SM 9222D	Fecal Coliform								
	Coliform, Fecal	1200	cfu/100m L	100	100			12/08/22 17:20	SB
SM 9222G	E. coli								
	E. coli	800	cfu/100m L	100	100			12/08/22 17:15	SB
EPA 1664B	Oil & Grease, Hexane Extract	ables							
	Oil & Grease	2.86	mg/L	1.19	1.19	2.38		12/10/22 13:10	YSK
SM 2550B									
	Temperature <sup>2</sup>	24.3	°C	1				12/08/22 13:00	AD
5M 4500CI-G	Chlorine, as Total Residual								
	Chlorine, Total	2.8	mg/L	1	0.02	0.05		12/08/22 13:00	AD
5M 4500H B	Corrosivity, pH								
	рН	6.98	s.u.	1				12/08/22 13:00	AD
5M 45000-G	Dissolved Oxygen								
	Dissolved Oxygen	5.4	mg/L	1	0.1			12/08/22 13:00	AD



#### Job ID : 22120794

Date : 12/15/2022

Analysis :	Total Suspende	d Solids		Method :	SM 2540D	Reporting Units : mg/L	
QC Batch ID	: Qb221209121	Created Date :	12/09/22	Created By :	RPadmanaban		
Samples in T	his QC Batch :	22120794.01					

Sample Preparation : PB22120938 Prep Method : SM 2540D Prep Date : 12/09/22 15:00 Prep By : RPadmanaban

QC Type: Method Bla	nk						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
TSS	TSS	< MDL	mg/L	1	2.5	2.5	

QC Type: Dupl	icate					
QC Sample ID:	22120790.03					
Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit	Qual
TSS	BRL	BRL	mg/L	0	20	

QC Type:	LCS and LCSE	)									
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
TSS		500	502.5	101						72-108	



Job ID : 22120794

Date : 12/15/2022

Analysis : Metals b	y ICP/MS		Method : E	EPA 200.8	Reporting Units	: mg/L
QC Batch ID : Qb22120	09134 Created E	ate : 12/09/22	Created By : B	Rena		
Samples in This QC Ba	tch : 22120794.	01				
Digestion :	PB22120925	Prep Method : EPA 200.8	Prep	Date: 12/09/22 0	8:10 Prep By :	JYou

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Antimony	7440-36-0	< MDL	mg/L	1	0.00025	0.00031	
Arsenic	7440-38-2T	< MDL	mg/L	1	0.00025	0.00003	
Beryllium	7440-41-7	< MDL	mg/L	1	0.00025	0.00009	
Cadmium	7440-43-9	< MDL	mg/L	1	0.00025	0.00006	
Chromium	7440-47-3T	< MDL	mg/L	1	0.00025	0.00003	
Copper	7440-50-8	< MDL	mg/L	1	0.0005	0.00009	
Lead	7439-92-1T	< MDL	mg/L	1	0.00025	0.00019	
Nickel	7440-02-0	< MDL	mg/L	1	0.00025	0.00025	
Selenium	7782-49-2	< MDL	mg/L	1	0.001	0.0006	
Silver	7440-22-4	< MDL	mg/L	1	0.0005	0.00006	
Thallium	7440-28-0	< MDL	mg/L	1	0.00025	0.00003	
Zinc	7440-66-6T	< MDL	mg/L	1	0.002	0.00188	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Antimony	0.05	0.0538	108	0.05	0.0536	107	0.4	20	85-115	
Arsenic	0.05	0.0489	97.8	0.05	0.0486	97.2	0.7	20	85-115	
Beryllium	0.05	0.0482	96.4	0.05	0.0479	95.7	0.6	20	85-115	
Cadmium	0.05	0.0523	105	0.05	0.0523	105	0.1	20	85-115	
Chromium	0.05	0.0503	101	0.05	0.0500	100	0.7	20	85-115	
Copper	0.05	0.0494	98.9	0.05	0.0495	99	0.1	20	85-115	
Lead	0.05	0.0518	104	0.05	0.0520	104	0.4	20	85-115	
Nickel	0.05	0.0494	98.8	0.05	0.0492	98.5	0.4	20	85-115	
Selenium	0.05	0.0493	98.6	0.05	0.0482	96.4	2.3	20	85-115	
Silver	0.05	0.0517	103	0.05	0.0517	103	0	20	85-115	
Thallium	0.05	0.0534	107	0.05	0.0537	107	0.6	20	85-115	
Zinc	0.05	0.0498	99.6	0.05	0.0506	101	1.6	20	85-115	

QC Type: MS a QC Sample ID:	nd MSD 22120819.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Antimony	0.0007	0.1	0.115	114						70-130	
Arsenic	0.0044	0.1	0.103	98.8	1 1					70-130	
Beryllium	BRL	0.1	0.0943	94.3					-	70-130	
Cadmium	BRL	0.1	0.108	108						70-130	
										ab-q	213-0321

Refer to the Definition page for terms.



#### Job ID : 22120794

Date : 12/15/2022

#### Analysis : Metals by ICP/MS Method : EPA 200.8

Reporting Units : mg/L

**QC Batch ID** : Qb221209134 **Created Date** : 12/09/22

Created By : BRena

Samples in This QC Batch : 22120794.01

QC Type: MS and M	SD									1000	
QC Sample ID: 221	20819.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Chromium	0.0010	0.1	0.108	107						70-130	
Copper	0.0017	0.1	0.104	102						70-130	
Lead	0.0005	0.1	0.0988	98.3						70-130	
Nickel	0.0043	0.1	0.106	102	1 1					70-130	
Selenium	0.0007	0.1	0.0949	94.2						70-130	
Silver	BRL	0.1	0.114	114						70-130	
Thallium	BRL	0.1	0.109	109						70-130	
Zinc	0.0429	0.1	0.165	123						70-130	



Date : 12/15/2022

Analysis :	Method :	SM 4500CN-I	Reporting Units : mg/L	

QC Batch ID : Qb221209143 Created Date : 12/09/22 Created By : Srijan

Samples in This QC Batch : 22120794.01

Sample Preparation : PB22120949 Prep Method : SM 4500CN-I Prep Date : 12/09/22 10:30 Prep By : Srijan

QC Type: Method Blan	k						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Cyanide, Free	57-12-5	< MDL	mg/L	1	0.01	0.001	

QC Type: Dupl	licate					
QC Sample ID:	22120758.01					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Cyanide, Free	BRL	BRL	mg/L	0	20	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Cyanide, Free	0.1	0.095	95	0.1	0.096	96	1	20	80-120	

QC Type: MS a	Ind MSD	The All States	644 S. A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.	See Star					3.2652.S.a.s.		100
QC Sample ID:	22120758.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Cyanide, Free	BRL	0.1	0.097	97						80-120	



Analysis : Cyanide,	Amenable Ultra	Low	Method	SM 450	OCN-CG Rep	orting Units	: mg/L
QC Batch ID : qb22120	9147 Created I	Date : 12/09/22	Created B	<b>y :</b> Srijan			
Samples in This QC Bat	<b>:ch :</b> 22120794.	01					
Sample Preparation :	PB22120950	Prep Method : SM 45	00CN-CG	Prep Date :	12/09/22 13:30	Prep By :	Srijan

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Cyanide, Amenable	57-12-5	< MDL	mg/L	1	0.002	0.001	
Cyanide, Available	57-12-5	< MDL	mg/L	1	0.002	0.001	

QC Type: LCS and L	CSD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Cyanide, Amenable	0.02	0.020	100	0.02	0.020	100	0		90-110	
Cyanide, Available	0.02	0.020	100	0.02	0.020	100	0		90-110	



Analysis : E. coli			Method :	SM 9222G	Reporting Units : cfu/100mL
QC Batch ID : Qb22120958	Created Date :	12/08/22	Created By :	Sindhu	
Samples in This QC Batch :	22120794.02				

QC Type: Method Blank								
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qi	ual
E. coli		< MDL	cfu/100mL	4		1		

QC Type: Dupl	licate	di Unici			Second Sec.	
QC Sample ID:	22120798.02					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
E. coli	4	4	cfu/100mL	0	40	



Analysis :	Fecal Coliform			Method :	SM 9222D	Reporting Units : cfu/100mL
QC Batch ID	: Qb22120969	Created Date :	12/08/22	Created By :	Sindhu	

Samples in This QC Batch : 22120794.02

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Coliform, Fecal		< MDL	cfu/100mL	4		1	

QC Type: Dupl	licate					
QC Sample ID:	22120747.05					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Coliform, Fecal	4	4	cfu/100mL	0	40	



Job ID : 22120794

Analysis :			Method :	EPA 62	5.1 Reporting Units	: mg/L
QC Batch ID : qb22120989	Created	Date : 12/09/22	Created By :	MShah		
Samples in This QC Batch	: 22120794	ł.01				
Extraction : PE	22120916	Prep Method : EPA 625.1	Pre	p Date :	12/09/22 08:00 Prep By :	MMuteen

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
m- & p-Cresol	65794-96-9	< MDL	mg/L	1.00	0.01	0.004	
2-Fluorophenol(surr)	367-12-4	48.9	%	1.00			
Phenol-d6(surr)	13127-88-3	43.7	%	1.00			
Nitrobenzene-d5(surr)	4165-60-0	87.9	%	1.00			
2-Fluorobiphenyl(surr)	321-60-8	87.5	%	1.00			
2,4,6-Tribromophenol(surr)	118-79-6	84.3	%	1.00			
p-Terphenyl-d14(surr)	1718-51-0	136	%	1.00			

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
m- & p-Cresol	0.1	0.0584	58.4	0.1	0.0555	55.5	5.1	30	36.1-104	



Date : 12/15/2022

Analysis : Anions		Method : EPA 300	.0 Reporting Units : mg/L
QC Batch ID : Qb22120997	Created Date : 12/09/22	Created By : Skannan	
Samples in This QC Batch	22120794.01		
Sample Preparation : PB2	2120928 <b>Prep Method :</b> EPA 300.	0 Prep Date :	12/09/22 10:00 Prep By : Skannan

QC Type: Method Blank	k						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Chloride	16887-00-6	< MDL	mg/L	1.00	0.1	0.018	
Sulfate	14808-79-8	< MDL	mg/L	1.00	0.1	0.010	

QC Type:	LCS and LCS	D						is second			
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Chloride		1	1.08	108	1	0.980	98	9.3	20	90-110	
Sulfate		1	1.01	101	1	0.963	96.3	4.7	20	90-110	

QC Type: MS a QC Sample ID:	nd MSD 22120885.03										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Chloride	23300	100	23600	300						80-120	M1
Nitrate-N	17.7	100	117	99.3						80-120	
Sulfate	251	100	356	105						80-120	



# Job ID : 22120794

Date : 12/15/2022

Analysis : Oil & Grease, H	lexane Extractables	Method :	EPA 1664B	Reporting Units : mg/L	
QC Batch ID : Qb22121031	Created Date : 12/10/22	Created By :	SKYanduru		
Samples in This QC Batch :	22120794.02				

Sample Preparation : PB22121010 Prep Method : EPA 1664B Prep Date : 12/10/22 13:00 Prep By : SKYanduru

QC Type: Method Bla	nk						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Oil & Grease		< MDL	mg/L	1	2	1	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Oil & Grease	40	36.7	91.8	40	36.8	92	0.3	11	78-114	

QC Type: MS a	nd MSD					N. Shares	NAME NO				
QC Sample ID:	22120839.02										
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Oil & Grease	3.1	40	40.0	92.3						78-114	



#### Job ID : 22120794

Analysis :	Total Kjeldahl Nitrogen	Method :	EPA 351.2	Reporting Units : mg/L
	· · · · · · · · · · · · · · · · · · ·	rictiou i		heporting onliss i mg/L

QC Batch ID : Qb22121131 Created Date : 12/09/22 Created By : Srijan

Samples in This QC Batch : 22120794.01

Sample Preparation : PB22121108 Prep Method : EPA 351.2 Prep Date : 12/09/22 10:00 Prep By : Srijan

QC Type: Method Blan	k						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
TKN		< MDL	mg/L	1	0.2	0.02446	

QC Type: LCS and LCS	D									
Daramotor	LCS	LCS	LCS	LCSD	LCSD	LCSD	000	RPD	%Recovery	Qual
Parameter	эрк Аййей	Result	% Rec	Spk Аdded	Result	% Rec	RPD	CtriLimit	CtriLimit	Qual
TKN	5	5.2087	104	5	5.1990	104	0.2	20	90-110	

QC Type: MS a	nd MSD							19.25.489		Section 1	
QC Sample ID:	22120721.07										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
TKN	0.4010	5	4.7417	86.8	5	4.7301	86.6	0.2	10	90-110	M2

.



Date : 12/15/2022

Analysis :			Method :	SM 3500Cr B	Reporting Units : mg/L
QC Batch ID : Qb22121142	Created Date :	12/08/22	Created By :	SKYanduru	

Samples in This QC Batch : 22120794.01

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Chromium, Hexavalent	18540-29-9	< MDL	mg/L	1	0.001	0.0005	

QC Type: Duplicate			2.55.55			
QC Sample ID: 2212	0794.01					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Chromium, Hexavalent	BRL	BRL		0	20	

QC Type: LCS and LC	SD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Chromium, Hexavalent	0.02	0.020	100	0.02	0.020	100	0	20	86.8-108	

QC Type: MS and MSD	Calification (	Sector Sector							tening with		1.20
QC Sample ID: 22120	794.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Chromium, Hexavalent	BRL	0.02	0.020	100	0.02	0.020	100	0	20	80-120	



Date : 12/15/2022

Analysis :	Carbonaced	ous Biochemica	l Oxygen Demand	Method :	SM 5210	B Rep	orting Units	: mg/L
QC Batch ID	: Qb2212114	6 Created D	ate: 12/09/22	Created By :	sadeshp			
Samples in T	his QC Batch	<b>1 :</b> 22120794.0	01					
Sample Prepa	aration : P	B22121105	Prep Method : SM 5210	)B Prep	Date :	12/09/22 07:00	Prep By :	sadeshp

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
CBOD		< MDL	mg/L	1		2	

QC Type: Dupl	icate					
QC Sample ID:	22120613.01					
Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit	Qual
CBOD	BRL	BRL	mg/L	0	20	

QC Type:	LCS and LCSI	2									
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
CBOD		198	173.00	87.4	198	180.00	90.9	4	20	84.6-115	



Analysis : CVAFS			Method :	EPA 1631E	Reporting Units : ng/L
QC Batch ID : Qb22121284	Created Date :	12/12/22	Created By :	BRena	
Samples in This QC Batch :	22120794.01				

 Digestion :
 PB22121239
 Prep Method : EPA 1631E
 Prep Date :
 12/09/22 16:30
 Prep By :
 BRena

QC Type: Method Bl	ank						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Mercury	7439-97-6T	< MDL	ng/L	1	0.25	0.0419	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD Ctrll imit	%Recovery	Qual
Mercury	5	5.08	102	5	4.82	96.4	5.2	24	77-123	

QC Type: MS a	nd MSD							04.151.151			
QC Sample ID:	22120824.01										
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Mercury	3.13	5	8.06	98.6	5	7.80	93.4	3.3	24	71-125	



Date : 12/15/2022

Analysis :			Method :	EPA 350.1	Reporting Units : mg/L
QC Batch ID : Qb22121298	Created Date :	12/12/22	Created By :	Srijan	
Samples in This QC Batch :	22120794.01				

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Ammonia as N	NH3-N	< MDL	mg/L	1	0.1	0.01385	

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
Ammonia as N	1	0.9711	97.1	1	0.9545	95.5	1.7	20	90-110	

QC Type: MS a	nd MSD		Palates				No. Sheri	Sec. Sec. 1		The Second	18.200
QC Sample ID:	22120558.01										100
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Oual
Ammonia as N	0.1194	1	1.1166	99.7	1	1.1388	102	2	10	90-110	



#### Job ID : 22120794

Date: 12/15/2022

Analysis : Cyanide, Total Ultra Low Method : SM 4500CNC/E Reporting Units : mg/L

QC Batch ID : Qb22121384 Created Date : 12/09/22 Created By : Srijan

Samples in This QC Batch : 22120794.01

Sample Preparation : PB22121331 Prep Method : SM 4500CNC/E Prep Date : 12/09/22 13:30 Prep By : Srijan

QC Type: Method Blank	:						
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Cyanide	57-12-5	< MDL	mg/L	1	0.002	0.001	

QC Type: Dupl	icate					
QC Sample ID:	22120794.01					
Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit	Qual
Cyanide	0.0034	0.0037	-	8.4		

QC Type:	LCS and LCSI	2									
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Cyanide		0.02	0.020	100	0.02	0.020	100	0		90-110	

QC Type: MS a	nd MSD			1	2. Calendaria	. Section 10	C. C. S. S. S.	1.130.5		40.24 Mar	1 Julyani
QC Sample ID:	22120794.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Cyanide	0.0037	0.02	0.022	91.5						80-120	

	10100 Eact Erosition	1 401				CH L			1					-	aRe	ō
	Houston TX 77029		: it i	f Port	Ath				V C	NNI CO So Iti					3. PO #	22207905
	713-453-6060		444 4	th St	Anne	× Bldc	1 of				Dag	5			4. Turn:	around Time
	1-877-478-6060 Toll	Free	Port	Arthu	Ĥ,	7764	10		- 0	ort Arth		LL X.	641			ess Days)
	713-453-6091 Fax		Conta	act: FI	ovd R	ilev			.0	ontact: C	liftor	Nilli	ame			].
	info@ablabs.com		Phon	e: 409	9-983	8290			L L	hone: 40	9-98	3-816	0			- s
	www.ablabs.com		=	oyd.ri	ev@	ortart	nurtx.	VOP		ifton.willi	ams(	Dort	arthur	vop.x		vs Standard
															J Da	ys
A&B JOB ID																* Surcharge
5. Project #	6. Project Name / Loca	tion						Р 	OA F	ď	<u>م</u>	AG		υ	٩	14. Containers*
	Main Plant - 62	00 Proctor	Street	Extens	ion			z	н	X,HO	S	U		s	+	15. Preservatives
7. Reporting Requiremen		and the second se		and the second se			sie	-	0	-	-	~		6	0	16 # of Contrinom
TRRP Limits Only	TRRP Package J St	andard Level	п				anin			.,		1		4	7	ID.# OI CONTAINERS
ampler's Name & Company A&B Labs///// 500 Nom	Sampler's Sig	nature & C	Date	-	0	50	Conta	MOJ	'വറജാ	volitral ow,						*Metals: Sb,As,Be,Cd,Cr,Cu,F b Ni Se An TI Zn
	1 ah 10. Sam	oling	1	<u>}                                    </u>	12. M	atrix	to .of	, TriCr_	vuious'	nable_l II_UltraL	N	1.828			motiloC	**Anions: Chloride, Sulfate
9. Sample ID & Description	Use Only Date	Time	dwog	den5 Vaste	Vater	)ther	I letoT .El	8.00S eleteM	<u>ופּגרינ רסאי י</u> סא רפּאפּו שפ	22 amA_sbinsv stoT_sbinsv IAW_sbinsv	T , sinomm.	- Iosan Cresol -		&G_HEM	) Isoaf, Fecal (	
Effluent	112-7-22 11 19	30	) ×				9	. ×			∀ ×	N ×		o	Э	18. Comments
Effluent	02 AD 72-8-22 13	QQ		×	Ĥ		4	$\left  \right $	$\left  \right $					×	×	Field DO: 5 U
					_	_			-							Field Chlorine: 2.5
		3	. <u>-</u>	· c				-								Field Temp: $2u \cdot 3$
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19. RELINOUISHED BY	A DATE	TIME				->		-	-					1		
Wellin Fred In work	1 1014 1010	(10/ 1/-	2.7			-				Contra Streamer		AIE		ME	KNOWN	HAZARDS / COMMENTS:
2)	very report	20-1	*	3	2	- UT	5	5			2	245	1	00	а Т	22112107
5											_					DC
<ul> <li>Containers: VOA- 40 ml vial</li> <li>4 oz/8 oz- glass w</li> </ul>	Ald hide mouth Plo	3- Amber/G D- Plastic/o	blass 1 ther	Liter				"Prese	rvative	s: C-Cool - NaOH T-h	H-HC	I N-	HNO3			01.2
BILL OF LADING/TRACKING	#						П	METH	go	<b>DF SHIPM</b>	ENT				F	DRU (
A&B CANNOT ACCEPT VERBAL CH MANAGER.	HANGES. PLEASE FAX WRI	ITEN CHANC	SES TO	713-45	3-6091	OR EM/	ALL THE	NEW	COC 1	O YOUR PI	SOJEC	F		Samples resi	will be disp erves the rio	osed of after 30 days. A&B ght to return samples.
							Page	22 of 2	~							

 $\circ$ 

# Sample Condition Checklist



A8	B JobID : 22120794 Date	ved : 5:00PM			
Cli	ent Name : Port Arthur, City of				
Te	mperature : 2.1°C Sam	ple pH : < 2 Metals, TKN, NH3 >12 CN			
Th	ermometer ID : IR4 pH F	aper ID : 101567			
Pe	erservative :				
		Check Points	Yes	No	N/A
1.	Cooler Seal present and signed.			х	
2.	Sample(s) in a cooler.		х		
з.	If yes, ice in cooler.		x		
4.	Sample(s) received with chain-of-custody.		х		
5.	C-O-C signed and dated.		х		
6.	Sample(s) received with signed sample custo	dy seal.		х	
7.	Sample containers arrived intact. (If No com	nent)	х		
8.	Matrix: 🖌 🗌 🗌 🔤	Solid Cassette Tube Bulk Badge Food	Other		
9.	Samples were received in appropriate contain	er(s)	х		
10.	Sample(s) were received with Proper preserv	ative	х		
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 requ	ested.	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				х

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

CN: NaOH+NaAsO2. ~JM 12/9/22

Received by : JMarion

ab-s005-0321

Tel: (409) 842-0658 Fax: (409) 842-9793

www.earthanalytical.com

ENVIRONMENTAL ANALYSES ~ INORGANIC ANALYSES ~ HAZARDOUS WASTE CHARACTERIZATION ~ ORGANIC ANALYSES ~ GAS CHROMATORGRAPHY PETROLEUM CONTAMINATION ANALYSES ~ ANIONS BY ION CHROMATOGRAPHY ~ METALS ANALYSES ~ TCLP ~ RCRA ~ GC/MS

4825 Ward Drive, Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

27 December 2022

EAS NO .: 2L20023

Floyd Riley City of Port Arthur - Wastewater 444 4th St. Port Arthur, TX 77648 **RE:** Wastewater

Project No.: Main EFF 01 / 02

Enclosed are the results of analyses for samples received by the laboratory on 12/20/22 10:25. If you have any questions concerning this report, please feel free to contact me.

Reviewed and Approved:

Hadron

Scott Boudreaux

Project Manager

professional standards, but makes no other warranty, expressed or implied. In the event of any error, omission or other professional negligence, the sole and exclusive responsibility of EAS shall be to re-perform the work at its own expense, and EAS shall have no other liability whatsoever. In no event shall EAS be liable, whether in contract or tort, including negligence, for any incidental or consequential damages. If this provision is in conflict with other contractual terms, it is understood that this provision will, in all cases, prevail. This report can only be reproduced in full with written approval and consent of Earth Analytical Sciences, Inc. EAS is a NELAP accredited laboratory and meets the guidance requirements put forth by "The NELAC Institute"

Earth Analytical Sciences, Inc. (EAS) warrants that work will be performed in accordance with sound laboratory practice and

(2016) for NELAP accredited parameters at EAS, unless noted otherwise. NELAP analyte certifications are considered to be approved in Texas and Louisiana for all analytes, unless denoted with an (E-1) under "Certification". Those analytes certified in either Texas or Louisiana, but not both, will be noted by "Case Narrative".

4825 Ward Drive Beaumont, TX 77705







BATH ANALYTE ROENCES NO	2	4825 Ward Drive Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793
City of Port Arthur - Wastewater	Project: Wastewater	
444 4th St.	Project Number: Main EFF 01 / 02	Reported:
Port Arthur TX, 77648	Project Manager: Floyd Riley	12/27/22 08:21

Sample ID	Laboratory ID	Matrix	Cooler Temp C	Date Sampled	Date Received
Main EFF	2L20023-01	Wastewater	2.9	12/20/22 07:30	12/20/22 10:25
Sample Receipt Check	list				
COC complete w/ required dates, times, signatu	ires? Ye	S			
Chain of Custody Seal on Shipping Container?	N	D			
If yes, is seal intact?	N	5			
COC Seals on containers?	N	D			
If yes, is seal intact?	N	5			
Samples received with evidence of chilling?	Ye	s			
Was a temperature blank used?	Ye	s			
Samples received were not frozen & acceptable	? Ye	s			
Are samples received on ice?	Ye	s			
Therm. ID#1. Bias temp. (if appl.)on chain?	Ye	s	θ		
Cooler temperature was acceptable and recorde	ed? Ye	S			
Proof of chilling, sampled same day & acceptable	e? Ye	S			
Are sample containers intact (not damaged)?	Ye	S			
Are acceptable containers used?	Ye	S			
Were EnCore-Type samplers used, where applic	able? No	0			
Is volume of samples sufficient for all analyses?	Ye	S			
Are required preservatives documented accepta	ble? Ye	S			
Preserved samples checked for pH and accepta	ble? Ye	5			
Are samples that require adjusted pH document	ed? No	1			
VOAs requiring zero headspace have none or <	6mm? No				
Are samples received within holding times?	Yes	5			
Containers properly labeled and COC match lab	els? Yes	3			

	$\bigcirc$								
							4	825 Ward	l Drive
ATH ANAL NC							Bea	umont, T	X 77705
DENCE								(p) 409-8-	42-0658
								(f) 409-8-	42-9793
City of Port Arthur - Wastewater				Project: Wastewat	er				
444 4th St.			Project	Number: Main EFI	7 01 / 02			Reported	:
Port Arthur TX, 77648			Project	Manager: Floyd Ril	ey			12/27/22 08	8:21
			Ma	ain EFF					
Work Order #:	2L20	023-01		Collection Dat	e & Time :	12/20/2022 7:3	80:00AN	<b>v</b> 1	
	D. I.	Reporting		Dromorod			<b>G</b>	A I i	N
Analyte	Result	Limit	Units	Fiepareu	Analyzed	Method	Cert	Analyst	Notes
Wet Chemistry Analysis Parameters									
Total Alkalinity as CaCO3	139	20	mg/L	12/20/22 13:00	12/20/22 13:00	SM 2320B-2011		TRG	
Phosphorus, Total as P	1.90	0.50	mg/L	12/22/22 11:30	12/22/22 11:30	SM 4500-P B/E-2011		DLG	Q8
Total Dissolved Solids (TDS)	440	40	mg/L	12/22/22 14:30	12/22/22 14:30	SM 2540C-2015		DLG	



4825 Ward Drive Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

City of Port Arthur - Wastewater 444 4th St. Port Arthur TX, 77648 Project: Wastewater Project Number: Main EFF 01 / 02 Project Manager: Floyd Riley

**Reported:** 12/27/22 08:21

#### Wet Chemistry Analysis Parameters - Quality Control

#### Earth Analytical Sciences, Inc.

		Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Analyst	Notes
Batch B2L0402 - Wet Chem Prep											
Blank (B2L0402-BLK1)				Prepared &	Analyzed: 12/	20/22					
Total Alkalinity as CaCO3	<20	20	mg/L							TRG	
LCS (B2L0402-BS1)				Prepared &	Analyzed: 12/	20/22					
Total Alkalinity as CaCO3	2390	20	mg/L	2350		102	80-120			TRG	
Matrix Spike (B2L0402-MS1)		Source: 2L	.08058-07	Prepared & A	Analyzed: 12/2	20/22					
Total Alkalinity as CaCO3	935	20	mg/L	470	467	100	80-120			TRG	
Matrix Spike Dup (B2L0402-MSD1)		Source: 2L	08058-07	Prepared & /	Analyzed: 12/2	20/22					
Total Alkalinity as CaCO3	920	20	mg/L	470	467	96	80-120	2	20	TRG	
Batch B2L0467 - Wet Chem Prep											
Blank (B2L0467-BLK1)				Prepared & A	analyzed: 12/2	22/22					
Phosphorus, Total as P	< 0.05	0.05	mg/L							DLG	Q8
LCS (B2L0467-BS1)				Prepared & A	nalyzed: 12/2	22/22					
Phosphorus, Total as P	0.35	0.10	mg/L	0.330		106	80-120			DLG	Q8
Matrix Spike (B2L0467-MS1)		Source: 2L	20028-01	Prepared & A	nalyzed: 12/2	2/22					
Phosphorus, Total as P	1.75	0.50	mg/L	1.65	ND	106	80-120			DLG	Q8
Matrix Spike Dup (B2L0467-MSD1)		Source: 2L	20028-01	Prepared & A	nalyzed: 12/2	2/22					
Phosphorus, Total as P	1.70	0.50	mg/L	1.65	ND	103	80-120	3	20	DLG	Q8
Batch B2L0483 - Wet Chem Prep											
Blank (B2L0483-BLK1)				Prepared & A	nalyzed: 12/2	2/22					
Total Dissolved Solids (TDS)	<10	10	mg/L							DLG	



4825 Ward Drive Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

City of Port Arthur - Wastewater 444 4th St. Port Arthur TX, 77648 Project: Wastewater Project Number: Main EFF 01 / 02 Project Manager: Floyd Riley

Reported: 12/27/22 08:21

# Wet Chemistry Analysis Parameters - Quality Control

# Earth Analytical Sciences, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyst	Notes
Batch B2L0483 - Wet Chem Prep											
LCS (B2L0483-BS1)				Prepared & A	Analyzed: 12/2	22/22					
Total Dissolved Solids (Source)	4000	40	mg/L	4000		100	80-120			DLG	
Matrix Spike (B2L0483-MS1)		Source: 2L2	1029-03	Prepared & A	Analyzed: 12/2	22/22					
Total Dissolved Solids (Source)	2580	40	mg/L	2000	550	102	80-120			DLG	
Matrix Spike (B2L0483-MS2)		Source: 2L2	2003-01	Prepared & A	Analyzed: 12/2	22/22					
Total Dissolved Solids (Source)	2410	40	mg/L	2000	328	104	80-120			DLG	
Matrix Spike Dup (B2L0483-MSD1)		Source: 2L2	1029-03	Prepared & A	analyzed: 12/2	22/22					
Total Dissolved Solids (Source)	2590	40	mg/L	2000	550	102	80-120	0.4	20	DLG	
Matrix Spike Dup (B2L0483-MSD2)		Source: 2L2	2003-01	Prepared & A	analyzed: 12/2	22/22					
Total Dissolved Solids (Source)	2340	40	mg/L	2000	328	101	80-120	3	20	DLG	

	Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793
Project: Wastewater	
Project Number: Main EFF 01 / 02	Reported:
Project Manager: Floyd Riley	12/27/22 08:21
Qualifiers, Definitions & Notes	12/2/1/22/08:21
	Project: Wastewater Project Number: Main EFF 01 / 02 Project Manager: Floyd Riley Qualifiers, Definitions & Notes

20	Standard Frendus 2514 Ed. Section 4020 used as guida	nee for canb	ration of mstruments.
mg/L	milligrams per liter	<	Results are less than the reporting limit
mg/kg	milligrams per kilogram	ND	Non Detected at reporting limit
ug/g	microgram per gram	LCS	Laboratory Control Sample
ug/kg	microgram per kilogram	RPD	Relative Percent Difference
ug/L	microgram per liter		

All results are reported on a wet weight basis unless otherwise requested by the client.

If the Blank and/or LCS is qualified, a Case Narrative is included providing details for reporting decisions based on discussions of project management, technical operations and the end data user(Client).

MS/MSD and/or Surrogate results, that are qualified, are sample matrix driven anomalies and therefore, as defined by TNI Standards, not used to determine the validity of the analysis batch.

-	0	. ()	
Gopper Gopper Iron Laad Magnesium Magnesium Vanallum	Molybdenum Nickel Potassium Sample Receiving Comments Rec 44 9 C HDSO4 164 464 C		Initials:
CHAIN OF CUSTODY PECORD Parameter List Regulsition Hardness - Calcium Hardness - Calcium	PH Outbonesenter PH Dontainer Tutoloty PH Dontainer Tutoloty PH Dontainer Tutoloty PH Preservatives P P P P P P P P P P P P P P P P P P P		Date: Time: Work Order # Date: Time: Cooler Temp: Date: Time: Disposal Date: Date: Atmationnd
WY CHEMISTRY CHEMISTRY Attalinty - Total Attalinty - Total Attalienty - Total Attalienty - Total Attalienty - Attalian Attalienty - Attalian Attalienty - Attalian Attalienty - Attalian Attalianty - Attalian Attalianty - Attalian Attalianty - Attalianty - A	Matrix Matrix Duluking Matrix Dirinking Matrix Dirinking Matrix		: Received by: (Signature) A.A. R. M. M. M. Received by: (Signature) Received by: (Signature)
Client Name City of Port Hrthwr Address Hythy 4 m St City Pl. Arthw State IV Zip City Pare Floy A RI ev Phone 109-983-8390 Fax Ive certiy that the samples below have not been out of our custody until relinquished	Collect Collect Lab Date Time Seq.# Sample iD - Site iD 12-20 01:36 MoinEff 01 12-20 01:36 MoinEff 01		Relinquished by: (Signature) Bate: Time: (Signature) Bate: Time: (Signature) Date: Time: (Signature) Client Specific Notes:
	Stort		
ENVIRONMENTAL ANALYSES ~ INORGANIC ANALYSES ~ HAZARDOUS WASTE CHARACTERIZATION ~ ORGANIC ANALYSES ~ GAS CHROMATORGRAPHY PETROLEUM CONTAMINATION ANALYSES ~ ANIONS BY ION CHROMATOGRAPHY ~ METALS ANALYSES ~ TCLP ~ RCRA ~ GC/MS



#### 4825 Ward Drive, Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

27 January 2023

EAS NO .: 3A23039

Floyd Riley City of Port Arthur - Wastewater 444 4th St. Port Arthur, TX 77648 RE: Wastewater

Project No.: Main Plant

Enclosed are the results of analyses for samples received by the laboratory on 01/23/23 10:30. If you have any questions concerning this report, please feel free to contact me.

Reviewed and Approved:

and reary

Scott Boudreaux

Project Manager

Earth Analytical Sciences, Inc. (EAS) warrants that work will be performed in accordance with sound laboratory practice and professional standards, but makes no other warranty, expressed or implied. In the event of any error, omission or other professional negligence, the sole and exclusive responsibility of EAS shall be to re-perform the work at its own expense, and EAS shall have no other liability whatsoever. In no event shall EAS be liable, whether in contract or tort, including negligence, for any incidental or consequential damages. If this provision is in conflict with other contractual terms, it is understood that this provision will, in all cases, prevail. This report can only be reproduced in full with written approval and consent of Earth Analytical Sciences, Inc.



EAS is a NELAP accredited laboratory and meets the guidance requirements put forth by "The NELAC Institute" (2016) for NELAP accredited parameters at EAS, unless noted otherwise. NELAP analyte certifications are considered to be approved in Texas and Louisiana for all analytes, unless denoted with an (E-1) under "Certification". Those analytes certified in either Texas or Louisiana, but not both, will be noted by "Case Narrative".

4825 Ward Drive Beaumont, TX 77705

RECEIVED APR 1 4 2023 Water Quality Applications Team Tel: (409) 842-0658 Fax: (409) 842-9793 www.earthanalytical.com



4825 Ward Drive Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

## **Case Narrative**

Analysis for Enterococcus was performed by Sabine River Authority. A certificate of analysis is enclosed.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client $C.i.J.y = f. Parl. Arthur Address: \frac{444}{4+1} \frac{3+1}{3t}. Project \frac{1}{3} Project \frac{1}$	CHAIN OF CUS: CHAIN OF CUS: CHAIN OF CUS: CHAIN OF CUS: CHAIN OF CUS: A #: A #	L SCIENCES, INC. TODY RECORD A 825 Ward Drive Beaumont, Texas 77705 Phone: (409) 842-0658 Fax: (409) 842-0658 Fax: (409) 842 Analysis Requested Analysis Requested Analysis Requested A diditional Analysis by <i>Lee T</i> A diditional Analysis by <i>Lee T</i> A diditional Analysis by <i>Lee T</i> A diditional Analysis A diditional A distribution A diditional A didit	
SAMPLED BY: H. Hran'uky		1.A.T Working Days (TCLP):     10 Dav(STD)     5 Dav(RUSH)     2.3 Dav(ASAP)       SAMPLED BY PRINT NAME:	
RELINQUISHED BY: C C C C C C C C C C C C C C C C C C C	DATE: 2/23/23 ITME: 1030 DATE:	RECEIVED BY: LL & Re- Organization: Eas Received by:	
ORGANIZATION <sup>.</sup> RELINQUISHED BY: ORGANIZATION: MATRIX: (W) Water (WY) Wastewater (L) Liquid (SL) Shudge (S) Soil (SD) Solid	TIME: DATE: TIME: TOO OU	ORGANIZATION: RECEIVED AT LABORATORY BY: June R ORGANIZATION: Earth Analytical Sciences, Inc.	
PRESERVATIVE: (1) H <sub>2</sub> SO <sub>4</sub> (2) HNO3 (3) NaOHZinc Acetate (4) HCl (5) Na2	5203 (6) NaOH (7) NaHSO4	CONTAINER: (GA) Glass Amber (G) Glass (P) Plastic (VOA) 40ml Glass Vial wTeflon Septum (EC) EnCore-type Samplers (8) H2SO4/CuSO4 (9) NaOH/Ascorbic Acid BLANK COC FRM-SC1 Chain Page 3	10



The Sabine River Authority An Agency of the State of Texas www.sratx.org Environmental Services Division Water Quality Laboratory 2065 Woodland Ridge Drive Orange, TX 77632 (409) 746-3284 Fax: (409) 746-2249

# ANALYTICAL REPORT

Attn: Scott Boudreaux Earth Analytical Sciences Inc 4825 WARD DRIVE Beaumont TX 77705 Order ID: 202301395 Project ID: Routine Municipal Received Date: 1/23/2023 12:30:00 PM Customer PO: 3A23039

The test results in this report meet all NELAP requirements related to SRA's NELAP accredited parameters unless noted otherwise. As of April 22, 2008, all reports and associated data will be retained by SRA for a minimum of five (5) years, unless prior written agreement is made with the client.

Due to the uncertainty of analytical measurements, the use of the measured values in this report for regulatory compliance must be evaluated by the client.

Results are related to the samples received. This report shall not be reproduced except in full without written approval of the SRA laboratory.

Confidentiality Notice: The information contained on this report is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.



NELAP Accredited #T104704266-22-19

Dolle Holtham

Reviewed and Released Pollie Holtham, Technical Director **RECEIVED** pholtham@sratx.org

APR 1 4 2023 Water Quality Applications Team

Page 1 of 6

Prepared For:	Earth Analytical Sciences Ir	nc		Rece	eive Date:	1/23/2023	12:30:00 PI	N
Project Name	: Earth Analytical Sciences, I	nc.	10,000	Colle	ector:	Client		
Sample #:	202301395-001	Collected:	1/23/2023		9:50	Site: 3/	A23039 01	
Customer:	Earth Analytical			Matrix: Non-	Potable Wa	ater		
Test Enterococcu	IS	Method Enterolert	Result 59	Units MPN/100m	RDL I 1	Qualifier	Analy cisaacs	vsis Information 1/23/2023 2:30:00 PM
Sample #: Customer:	202301395-002 Earth Analytical	Collected:	1/23/2023	Matrix: Non-F	9:51 Potable Wa	Site: 3A ater	123039 02	
Test Enterococcu	s	Method Enterolert	Result 47	Units MPN/100m	RDL I 1	Qualifier	Analy cisaacs	sis Information 1/23/2023 2:30:00 PM
Sample #: Customer:	202301395-003 Earth Analytical	Collected:	1/23/2023 I	Matrix: Non-F	9:51 Potable Wa	Site: 3A ater	23039 03	
Test Enterococcu	S	Method Enterolert	Result 50	Units MPN/100ml	RDL 1	Qualifier	Analy cisaacs	sis Information 1/23/2023 2:30:00 PM

	$\bigcirc$		$\bigcirc$
		Order ID 202301395	
Prepared For:	Earth Analytical Sciences Inc	Receive	Date: 1/23/2023 12:30:00 PM
Project Name:	Earth Analytical Sciences, Inc.	Collector	r: Client

## QUALITY CONTROL DATA: SPIKES

## **Sample Number** 202301395-001

Enteroco	occus			QC Ba	atch ID:	LB	053325	
QCType	QCSamples.	Result	Qualifier	% Recovery	RPD	LCL	UCL	RPD CL
Replicate	202301393-001	5			0.0			

## Sample Number 202301395-002

Enteroco	occus			QC Ba	atch ID:	LB	053325	
QCType	QCSamples.	Result	Qualifier	% Recovery	RPD	LCL	UCL	RPD CL
Replicate	202301393-001	5			0.0		50100010000000000	

## Sample Number 202301395-003

Enteroco	occus			QC Ba	atch ID:	LB	053325	
QCType	QCSamples.	Result	Qualifier	% Recovery	RPD	LCL	UCL	RPD CL
Replicate	202301393-001	5			0.0			

# DATA QUALIFIERS

### REPORT COMMENTS

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Report Date Friday, January 27, 2023

Page 3 of 6

				()
		Order ID 202301395		
Prepared For:	Earth Analytical Sciences Inc	F	Receive Date:	1/23/2023 12:30:00 PM
Project Name:	Earth Analytical Sciences, Inc.	C	Collector:	Client

2) Reporting limits are adjusted for sample size and dilutions.

3) According to 40 CFR Parts 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field, (e.g. pH Field) they were not analyzed immediately, but as soon as possible when received by the laboratory.

А	Possible matrix interference present in sample.	
A1	Spike recovery outside of established control limits, indicating a possible matrix interference. Method performance is demonstrated by acceptable LCS recoveries.	
В	Sample value reported below RDL for spike (LFM) calculation.	
B1	Target analyte was found in the method blank.	
С	Poor RPD values observed due to the non-homogenous nature of the sample.	
D	Sample reported from a dilution.	
D1	Spike diluted.	
D2	Due to the nature of matrix interferences, sample was diluted prior to analysis.	
D3	50mL dilution was performed on sample prior to analysis.	
Е	The reported concentration exceeds the instrument calibration.	
F	Out of control QA/QC not associated with this sample.	
Fl	Continuing Calibration verification (CCV) standard is not associated with the samples reported.	
G	Marginal outlier within 1% of acceptance criteria.	
Н	Analysis was performed in duplicate to validate result.	
I	Sample was filtered prior to analysis.	
J	No volume filtered yielded an ideal plate count of 20-60 fecal coliform colonies per membrane.	
К	Out of control QC does not affect the quality of reported results.	
L	BOD/CBOD LCS value is not within method acceptance criteria. Due to the nature of the test method, sample cannot be reanalyzed.	
LI	BOD result calculated as > due to final DO readings for all dilutions used being <1.0 mg/L.	
L2	BOD result calculated as < due to none of the dilutions used meeting the required depletion of 2.0 mg/L.	
L3	BOD/CBOD dilution water blanks had a depletion > 0.2 mg/L.	
L4	BOD/CBOD seed correction is not within method acceptance criteria. Due to the nature of the test method, the sample cannot be reanalyzed.	
L5	BOD method blank was greater than 2, sample results my be biased slightly high.	
L6	% deviation between Winkler titration DO values and meter values was >1.25%. Due to the nature of the test method, the sample cannot be reanalyzed.	
L7	Sample result may be affected by potential toxicity. BOD results increased as sample dilutions increased and the results from the highest and lowest dilution differed by more than 30%.	
Report Date	Friday, January 27, 2023 Pa	ge 4 o

of 6

Prepared For:	Earth Analytical Sciences Inc	Receive Date:	1/23/2023 12:30:00 PM				
		Collector.	Client				
М	LCS analysis yielded high recoveries, indicating a pot	tential high bias.					
M1	M1 RDL check standard had a high recovery. Result may be biased high.						
Ν	Laboratory not NELAC accredited for analyte.						
N1	No NELAC Accredition currently available for this analyte.						
N2	Analyte approved under the TCEQ Drinking Water La	aboratory program.					
0	Sample required dilution due to matrix interference.						
Р	Insufficient sample volume to perform chlorine check prior to analysis.						
Q	Q Equipment temperature fell outside of the required temperature range at some point during incubation/storage of this sample. It is not known if this deviation affected sample results.						
QI	An equipment temperature reading was not documented at some point during the incubation/storage of this sample. Temperature readings before and after were within range.						
R	RPD value is outside method acceptance criteria.	RPD value is outside method acceptance criteria.					
S	Sample received in an unverified/inappropriate contain meet data quality standards.	ner not supplied by the labor	atory and may not				
S 1	Sample received in container inappropriate for analysis.						
S2	Sample received without preservation and was preserve	ed at the lab upon receipt.					
Т	Analysis conducted outside of the required holding tim	ne based on client request.					
TI	Analysis was conducted outside of the required 15 min	ute holding time.					
U	Sample was filtered upon receipt at lab, more than 15 n	ninutes after collections.					
v	Analyte was detected in both the sample and the association	ated method blank					
W	The LFM/LFMD recoveries are outside QC acceptance than the amount found in the sample.	criteria because the spike a	mount is much less				
х	QCS/LCS failed to meet provider's acceptance criteria.	Data accepted based on oth	ner QC.				
Y	QC failed due to analyst technical error.						
Z	See case narrative.						

Page 5 of 6

Prepared For: Earth Analytical Sciences Inc

Project Name: Earth Analytical Sciences, Inc.

Receive Date: 1/23/2023 12:30:00 PM Collector: Client

#### SAMPLE CONDITION RECORD

Is there sufficient air space in bottle for bacteriological analysis?	Yes
Is the volume of sample submitted sufficient for the requested test(s)?	Yes
Were all samples within the holding time for the requested test(s)?	Yes
Were samples received cold?	Yes
Were samples received on ice?	Yes
Were samples received with applicable perservative?	Yes
Are bottle caps tight and securely in place?	Yes
Are the number of samples the same as stated on the chain of custody?	Yes
Are samples submitted with a correct and complete chain of custody?	Yes

			SUBCOR Earth Ai Project N	VTRACT ORDE nalvtical Sciences, I umber: 3A23039	R hc.	
SENDING LA	BORATORY:				RECEIVING LABORATORY:	400100×0×
Earth Analyti 4825 Ward Di Beaumont, TJ Phone: 409-842- Fax: 409-842- ct Manage	cal Sciences, Inc. r. K 77705 42-0658 -9793 rr: Scott Boudreaux	scott@earthanal	ytical.com		Sabine River Authority of Te 2065 Woodland Ridge Dr Orange, TX 77632 Phone :(409) 746-3284 Fax: (409) 746-2249	Sax
State of Origin PO Number :	: TX 3A23039				Due Date: 01/24/23 11:00	tump 5.5/5.5 °C
Sample ID	SampleName	Matrix	Sampled	Container type & ID	Analysis	Comments
3A23039-01	001 Cocci - Grab	Water	01/23/23 09:50	Containers and Unique 250 mL, P, Na2S2O3	ID: Analyses ( (A)SUB Enterococcus	
3A23039-02	002 Cocci - Grab	Water	01/23/23 09:51	Containers and Unique 250 mL, P, Na2S2O3	ID: Analyses ( (A)SUB Enterococcus	
3A23039-03	003 Cocci - Grab	Water	01/23/23 09:51	Containers and Unique 250 mL, P, Na2S2O3	<i>ID: Analyses</i> (A)SUB Enterococcus	
Released By	CLUCCY CLUC	Date/Time Date/Time	1123	DZ M Received By UNULU Received By	2 asolaware	ん3んり 11 52 Date/Time 1- 23-23 (230 Date/Time

Vage V of V

Page 10 of 10

ENVIRONMENTAL ANALYSES ~ INORGANIC ANALYSES ~ HAZARDOUS WASTE CHARACTERIZATION ~ ORGANIC ANALYSES ~ GAS CHROMATOGRAPHY PETROLEUM CONTAMINATION ANALYSES ~ ANIONS BY ION CHROMATOGRAPHY ~ METALS ANALYSES ~ TCLP ~ RCRA ~ GC/MS



#### 4825 Ward Drive, Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

23 January 2023

EAS NO .: 3A20031

Floyd Riley City of Port Arthur - Wastewater 444 4th St. Port Arthur, TX 77648 RE: Wastewater

Project No.: Main Plant

Enclosed are the results of analyses for samples received by the laboratory on 01/20/23 10:00. If you have any questions concerning this report, please feel free to contact me.

Reviewed and Approved:

androng ?

Scott Boudreaux

Project Manager

Earth Analytical Sciences, Inc. (EAS) warrants that work will be performed in accordance with sound laboratory practice and professional standards, but makes no other warranty, expressed or implied. In the event of any error, omission or other professional negligence, the sole and exclusive responsibility of EAS shall be to re-perform the work at its own expense, and EAS shall have no other liability whatsoever. In no event shall EAS be liable, whether in contract or tort, including negligence, for any incidental or consequential damages. If this provision is in conflict with other contractual terms, it is understood that this provision will, in all cases, prevail. This report can only be reproduced in full with written approval and consent of Earth Analytical Sciences, Inc.



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4825 Ward Drive Beaumont, TX 77705

RECEIVED APR 1 4 2023 Water Quality Applications Team Tel: (409) 842-0658 Fax: (409) 842-9793 www.earthanalytical.com



4825 Ward Drive Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

## **Case Narrative**

Analysis for E.coli was performed by SRA. A certificate of analysis is enclosed.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Page 2 of 10

4825 Ward Drive Beaumont, Texas 77705 Phone: (409) 842-0658 Fax: (409) 842-9793	ested Additional Analysis	Image: State of the state o
TICAL SCIENCES, INC. DE CUSTODY RECORD D/au+ C Ext. / DAN. 20 AUE.	c Matrix Preserved	Image: Control of the second state of the second
CHAIN	Sample Sample Containers Containers	Zi< Qu
Client: <u>City of Port Arthur</u> Address: <u>444. 411 74.</u> Contact: <u>F1, y A Ri/e y</u> Phone #: <u>(409) 9835 8290</u> E.A.S.# <u>SADOOR</u>	No. Sample ID Sample OLA BacTOOI 1/20/23	COMMENTS: COMMENTS: COMMENTS: COMMENTS: SAMPLED BY: Georg & M. SAMPLED BY: ORGANIZATION: RELINQUISHED BY: RELINQUISHED BY:



The Sabine River Authority An Agency of the State of Texas www.sratx.org Environmental Services Division Water Quality Laboratory 2065 Woodland Ridge Drive Orange, TX 77632 (409) 746-3284 Fax: (409) 746-2249

## ANALYTICAL REPORT

Attn: Scott Boudreaux Earth Analytical Sciences Inc 4825 WARD DRIVE Beaumont TX 77705

Order ID: 202301373 Project ID: Routine Municipal Received Date: 1/20/2023 11:25:00 AM Customer PO: 3A20031

The test results in this report meet all NELAP requirements related to SRA's NELAP accredited parameters unless noted otherwise. As of April 22, 2008, all reports and associated data will be retained by SRA for a minimum of five (5) years, unless prior written agreement is made with the client.

Due to the uncertainty of analytical measurements, the use of the measured values in this report for regulatory compliance must be evaluated by the client.

Results are related to the samples received. This report shall not be reproduced except in full without written approval of the SRA laboratory.

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NELAP Accredited #T104704266-22-19

Dollie Holtham

Reviewed and Released Pollie Holtham, Technical Director **RECEIVED** pholtham@sratx.org

APR 1 4 2023 Water Quality Applications Team

Page 1 of 6

## Prepared For: Earth Analytical Sciences Inc Receive Date: 1/20/2023 11:25:00 AM

Project Name: Earth Analytical Sciences, Inc.

Collector: Client

Sample #:	202301373-001	Collected:	1/20/2023		7:36	Site: 3A	20031 01	
Customer:	Earth Analytical		Matrix: Non-Potable Water					
Test		Method	Result	Units	RDL	Qualifier	Anal	ysis Information
E. Coli, Colil	ert	Colilert	<1	MPN/100ml	1		Itipton	1/20/2023 12:37:00 PM

$\bigcirc$	$\bigcirc$				
Order ID 20230137	3				
Prepared For: Earth Analytical Sciences Inc	Receive Date:	1/20/2023 11:25:00 AM			
Project Name: Earth Analytical Sciences, Inc.	Collector:	Client			

## QUALITY CONTROL DATA: SPIKES

## Sample Number 202301373-001

E. coli, Colilert				QC Batch ID: L			LB053316	
<b>QCType</b>	QCSamples.	Result	Qualifier	% Recovery	RPD	LCL	UCL	RPD CL
Replicate	202301368-003	3			0.2			

# DATA QUALIFIERS

#### **REPORT COMMENTS**

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

2) Reporting limits are adjusted for sample size and dilutions.

3) According to 40 CFR Parts 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field, (e.g. pH Field) they were not analyzed immediately, but as soon as possible when received by the laboratory.

А	Possible matrix interference present in sample.	
Al	Spike recovery outside of established control limits, indicating a possible matrix interference. Method performance is demonstrated by acceptable LCS recoveries.	d
В	Sample value reported below RDL for spike (LFM) calculation.	
B1	Target analyte was found in the method blank.	
С	Poor RPD values observed due to the non-homogenous nature of the sample.	
D	Sample reported from a dilution.	
Report Date	Monday, January 23, 2023	Page

Page 3 of 6

Prepared For: Project Name:	Earth Analytical Sciences Inc Earth Analytical Sciences, Inc.	Receive Date: Collector:	1/20/2023 11:25:00 AM Client				
D1	Spike diluted.						
D2	Due to the nature of matrix interferences, sample was diluted	Due to the nature of matrix interferences, sample was diluted prior to analysis.					
D3	50mL dilution was performed on sample prior to analysis.	50mL dilution was performed on sample prior to analysis.					
Е	The reported concentration exceeds the instrument calibration	The reported concentration exceeds the instrument calibration.					
F	Out of control QA/QC not associated with this sample.						
F1	Continuing Calibration verification (CCV) standard is not as	ssociated with the san	nples reported.				
G	Marginal outlier within 1% of acceptance criteria.						
Н	Analysis was performed in duplicate to validate result.						
I	Sample was filtered prior to analysis.						
J	No volume filtered yielded an ideal plate count of 20-60 feca	ul coliform colonies po	er membrane.				
К	Out of control QC does not affect the quality of reported resu	ılts.					
L	BOD/CBOD LCS value is not within method acceptance crit sample cannot be reanalyzed.	BOD/CBOD LCS value is not within method acceptance criteria. Due to the nature of the test method, sample cannot be reanalyzed.					
LI	BOD result calculated as > due to final DO readings for all d	BOD result calculated as > due to final DO readings for all dilutions used being <1.0 mg/L.					
L2	BOD result calculated as < due to none of the dilutions used	BOD result calculated as < due to none of the dilutions used meeting the required depletion of 2.0 mg/L.					
L3	BOD/CBOD dilution water blanks had a depletion $> 0.2$ mg/L.						
L4	BOD/CBOD seed correction is not within method acceptance method, the sample cannot be reanalyzed.	BOD/CBOD seed correction is not within method acceptance criteria. Due to the nature of the test method, the sample cannot be reanalyzed.					
L5	BOD method blank was greater than 2, sample results my be	BOD method blank was greater than 2, sample results my be biased slightly high.					
L6	% deviation between Winkler titration DO values and meter v test method, the sample cannot be reanalyzed.	% deviation between Winkler titration DO values and meter values was >1.25%. Due to the nature of the test method, the sample cannot be reanalyzed.					
L7	Sample result may be affected by potential toxicity. BOD res and the results from the highest and lowest dilution differed b	Sample result may be affected by potential toxicity. BOD results increased as sample dilutions increased and the results from the highest and lowest dilution differed by more than 30%.					
М	LCS analysis yielded high recoveries, indicating a potential h	igh bias.					
M1	RDL check standard had a high recovery. Result may be bias	RDL check standard had a high recovery. Result may be biased high.					
Ν	Laboratory not NELAC accredited for analyte.	Laboratory not NELAC accredited for analyte.					
NI	No NELAC Accredition currently available for this analyte.						
N2	Analyte approved under the TCEQ Drinking Water Laborator	Analyte approved under the TCEQ Drinking Water Laboratory program.					
0	Sample required dilution due to matrix interference.	Sample required dilution due to matrix interference.					
Р	Insufficient sample volume to perform chlorine check prior to	analysis.					
Q	Equipment temperature fell outside of the required temperatur incubation/storage of this sample. It is not known if this devia	Equipment temperature fell outside of the required temperature range at some point during incubation/storage of this sample. It is not known if this deviation affected sample results.					
QI	An equipment temperature reading was not documented at some point during the incubation/storage of this sample. Temperature readings before and after were within range.						

Page 4 of 6

Prepared For:	Earth Analytical Sciences Inc	Receive Date: 1/20/2023 11:25:00 AM					
Project Name:	Earth Analytical Sciences, Inc.	Collector:	Client				
R	RPD value is outside method acceptance criter	ia.					
S	Sample received in an unverified/inappropriate meet data quality standards.	Sample received in an unverified/inappropriate container not supplied by the laboratory and may not meet data quality standards.					
S1	Sample received in container inappropriate for	Sample received in container inappropriate for analysis.					
S2	Sample received without preservation and was preserved at the lab upon receipt.						
Т	Analysis conducted outside of the required holding time based on client request.						
TI	Analysis was conducted outside of the required 15 minute holding time.						
U	Sample was filtered upon receipt at lab, more than 15 minutes after collections.						
v	Analyte was detected in both the sample and the associated method blank						
W	The LFM/LFMD recoveries are outside QC acceptance criteria because the spike amount is much less than the amount found in the sample.						
х	QCS/LCS failed to meet provider's acceptance criteria. Data accepted based on other QC.						
Y	QC failed due to analyst technical error.						
Z	See case narrative.						

Prepared For: Earth Analytical Sciences Inc Project Name: Earth Analytical Sciences, Inc. Receive Date: 1/20/2023 11:25:00 AM

Collector: Client

SAMPLE CONDITION RECORD				
Is there sufficient air space in bottle for bacteriological analysis?	Yes			
Is the volume of sample submitted sufficient for the requested test(s)?				
Were all samples within the holding time for the requested test(s)?	Yes			
Were samples received cold?				
Were samples received on ice?				
Were samples received with applicable perservative?	Yes			
Are bottle caps tight and securely in place?				
Are the number of samples the same as stated on the chain of custody?				

Are samples submitted with a correct and complete chain of custody?

Yes

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	202301313	Texas	Ferrer 7, 1/7-100		Date/Time Date/Time Date/Time Date/Time
ORDER ences. Inc. A20031	RECEIVING LABORATOR	Sabine River Authority of 2065 Woodland Ridge Dr Orange, TX 77632 Phone :(409) 746-3284 Fax: (409) 746-2249	Due Date: 02/01/23 11:00 pe & ID Analvsis	ıd Unique ID: Analyses Na2S2O3 (A) <sup>S</sup> UB E. Coli	10 22 2 we by a contract 2
SUBCONTRACT O Earth Analytical Scie Project Number: 3A		tical.com	Sampled Container ty	01/20/23 07:36 Containers an 250 mL, P, l	Receiv
		aux scott@earthanaly	Matrix	lb Water	Date/Time Date/Time Date/Time
	SENDING LABORATORY:	Earth Analytical Sciences, Inc. 4825 Ward Dr. Beaumont, TX 77705 Phone: 409-842-0658 Fax: 409-842-9793 Project Manager: Scott Boudrea	State of Origin : TX PO Number : 3A20031 Sample ID SampleName	3A20031-01 BacT 001 - Gra	Released By