

Administrative 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. Application materials



Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

- 1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
 - Inglés
 - Idioma alternativo (español)
- 2. Primer aviso (NORI, por sus siglas en inglés)
 - Inglés
 - Idioma alternativo (español)
- 3. Solicitud original

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

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

Applicants should use this template to develop a plain language summary as required by <u>Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H</u>. Applicants 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 highlighted areas below to describe your facility and application in plain language. 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 TAC Section 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/STORMWATER

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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

The City of Tomball (CN600667190) operates the City of Tomball South WWTP (RN101609899), a conventional activated sludge facility. The facility is located off Holderrieth Rd, approximately 4,800 feet east of the intersection of SH 249 and Holderrieth Rd, in Tomball, Harris County, Texas 77375.

This application is for a major amendment to the wastewater treatment facility to add a relocated outfall, revise the treatment process, and request a reevaluation of the copper requirements.

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 an activated sludge process, and treatment units include fine screening, vortex grit system, oxidation ditch, clarifiers, and chlorine contact basins, which will be replaced by ultraviolet disinfection in the Interim II phase.

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

AGUAS RESIDUALES DOMÉSTICAS /AGUAS PLUVIALES

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 es una representación ejecutiva fedérale de la solicitud de permiso.

La Ciudad of Tomball (CN600667190) opera City of Tomball South WWTP (RN101609899), una instalación convencional de lodos activados. La instalación está ubicada en Holderrieth Rd, aproximadamente 4,800 pies al este de la intersección de SH 249 y Holderrieth Rd, en Tomball, condado de Harris, Texas 77375.

Esta solicitud es para una enmienda importante a la instalación de tratamiento de aguas residuales para agregar un desagüe adicional, revisar el proceso de tratamiento y solicitar una reevaluación de los requisitos de cobre.

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 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 un proceso de lodos activados y las unidades de tratamiento incluyen cribado fino, sistema de arena vortex, zanja de oxidación, clarificadores y cloro gaseoso, que serán reemplazados por desinfección ultravioleta en la fase Interina II.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0010616002

APPLICATION. City of Tomball, 401 Market Street, Tomball, Texas 77375, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010616002 (EPA I.D. No. TX0117595) to authorize relocation of the outfall, update in the treatment process, and reevaluation of copper requirements. The domestic wastewater treatment facility is located approximately 4,800 feet east of the intersection of Holderrieth Road and State Highway 249, in the city of Tomball, in Harris County, Texas 77375. The discharge route is from the plant site to a Harris County Flood Control District (HCFCD) ditch, thence to Willow Creek, thence to Spring Creek. TCEQ received this application on April 10, 2025. The permit application will be available for viewing and copying at City of Tomball Public Works, 501 James Street, Tomball, in Harris County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdesapplications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.6075,30.066388&level=18

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at: <u>https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications</u>. El aviso de idioma alternativo en español está disponible en <u>https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications</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. All 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 <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 Tomball at the address stated above or by calling Mr. Will Goff, Utilities Superintendent, at 281-290-1400.

Issuance Date: May 7, 2025

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. WQ0010616002

SOLICITUD. La Ciudad de Tomball, 401 Market Street, Tomball, Texas 77375, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0010616002 (EPA I.D. No. TX0117595) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar reubicación del emisario, actualización en el proceso de tratamiento y reevaluación de los requerimientos de cobre. La planta está ubicada aproximadamente 4,800 pies al este de la intersección de Holderrieth Road y State Highway 249 en el Condado de Harris, Texas 77375. La ruta de descarga es del sitio de la planta a Harris County Flood Control District (HCFCD), de allí a Willow Creek, de allí a Spring Creek. La TCEQ recibió esta solicitud el 10 de abril de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Obras Públicas de la Ciudad de Tomball, 501 James Street, Tomball, el Condado de Harris antes de la fecha de publicación de este aviso en el periódico. 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.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.6075,30.066388&level=18

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en <u>https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications</u>.

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

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del 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 envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en <u>www.tceq.texas.gov/goto/cid</u>. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 más información de la Ciudad de Tomball en la dirección indicada anteriormente o llamando al Sr. Will Goff, Superintendente de Servicios Públicos, al 281-290-1400.

Fecha de emisión: el 7 de mayo de 2025

Brooke T. Paup, *Chairwoman* Bobby Janecka, *Commissioner* Catarina R. Gonzales, *Commissioner* Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 10, 2025

Re: Confirmation of Submission of the Major Amendment with Renewal for Public Domestic Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Major Amendment with Renewal for the Public Domestic Wastewater authorization.

ER Account Number: ER037555 Application Reference Number: 774444 Authorization Number: WQ0010616002 Site Name: City of Tomball South WWTP Regulated Entity: RN101609899 - City of Tomball South WWTP Customer(s): CN600667190 - City of Tomball

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by telephone at (512) 239-4671.

Sincerely, Applications Review and Processing Team Water Quality Division

Texas Commission on Environmental Quality Update Domestic or Industrial Individual Permit WQ0010616002

Site Information (Regulated Entity)

| What is the name of the site to be authorized? | CITY OF TOMBALL SOUTH WWTP |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Does the site have a physical address? | No |
| Because there is no physical address, describe how to locate this site: | APPROX 4800 FT OF THE INTERX OF HOLDERRIETH RD AND SH 249 |
| City | TOMBALL |
| State | ТХ |
| ZIP | 77375 |
| County | HARRIS |
| Latitude (N) (##.######) | 30.066388 |
| Longitude (W) (-###.######) | -95.6075 |
| Primary SIC Code | 4952 |
| Secondary SIC Code | |
| Primary NAICS Code | 221320 |
| Secondary NAICS Code | |
| Regulated Entity Site Information | |
| What is the Regulated Entity's Number (RN)? | RN101609899 |
| What is the name of the Regulated Entity (RE)? | CITY OF TOMBALL SOUTH WWTP |
| Does the RE site have a physical address? | No |
| Physical Address | |
| Flysical Address | |
| Because there is no physical address, describe how to locate this site: | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD |
| Because there is no physical address, describe how to locate this site: City | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL |
| Because there is no physical address, describe how to locate this site: City State | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX |
| Because there is no physical address, describe how to locate this site: City State ZIP | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX 77375 |
| Because there is no physical address, describe how to locate this site: City State ZIP County | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX 77375 HARRIS |
| Because there is no physical address, describe how to locate this site: City State ZIP County Latitude (N) (##.######) | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX 77375 HARRIS 32.4266 |
| Privation Address Because there is no physical address, describe how to locate this site: City State ZIP County Latitude (N) (##.######) | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX 77375 HARRIS 32.4266 -97.57 |
| Privilia Address Because there is no physical address, describe how to locate this site: City State ZIP County Latitude (N) (##.#######) Longitude (W) (-###.################################# | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX 77375 HARRIS 32.4266 -97.57 |
| Privilia Address Because there is no physical address, describe how to locate this site: City State ZIP County Latitude (N) (##.######) Longitude (W) (-###.######) Facility NAICS Code What is the primary business of this entity? | LOCATED S OF HOLDERRIETH RD APPROX 2100 FT N OF WILLOW CK AND APPROX 4300 FT EOF THE INTERX OF SH 249 AND HOLDERRIETH RD TOMBALL TX 77375 HARRIS 32.4266 -97.57 DOMESTIC |

| How is this applicant associated with this site? | Owner |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| What is the applicant's Customer Number (CN)? | CN600667190 |
| Type of Customer | City Government |
| Full legal name of the applicant: | |
| Legal Name | City of Tomball |
| Texas SOS Filing Number | |
| Federal Tax ID | |
| State Franchise Tax ID | |
| State Sales Tax ID | |
| Local Tax ID | |
| DUNS Number | |
| Number of Employees | 101-250 |
| Independently Owned and Operated? | |
| I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. | Yes |
| Responsible Authority Contact | |
| Organization Name | City of Tomball |
| Prefix | MR |
| First | David |
| Middle | |
| Last | Esquivel |
| Suffix | |
| Credentials | PE |
| Title | City Manager |
| Responsible Authority Mailing Address | |
| Enter new address or copy one from list: | |
| Address Type | Domestic |
| Mailing Address (include Suite or Bldg. here, if applicable) | 401 MARKET ST |
| Routing (such as Mail Code, Dept., or Attn:) | |
| City | TOMBALL |
| State | ТХ |
| ZIP | 77375 |
| Phone (###-#####) | 2812901400 |
| Extension | |
| Alternate Phone (###-#####) | |
| Fax (###-#####) | |
| E-mail | desquivel@tomballtx.gov |
| Billing Contact | |

| Responsible contact for receiving billing statements: | |
|-------------------------------------------------------------------------|------------------------------|
| Select the permittee that is responsible for payment of the annual fee. | CN600667190, City of Tomball |
| Organization Name | CITY OF TOMBALL |
| Prefix | MR |
| First | WILL |
| Middle | |
| Last | GOFF |
| Suffix | |
| Credentials | |
| Title | UTILITIES SUPERINTENDENT |
| Enter new address or copy one from list: | |
| Mailing Address | |
| Address Type | Domestic |
| Mailing Address (include Suite or Bldg. here, if applicable) | 401 MARKET ST |
| Routing (such as Mail Code, Dept., or Attn:) | |
| City | TOMBALL |
| State | ТХ |
| ZIP | 77375 |
| Phone (###-#####) | 2812901400 |
| Extension | |
| Alternate Phone (###-#####) | |
| Fax (###-#####) | |
| E-mail | wgoff@tomballtx.gov |
| Application Contact | |
| Person TCEQ should contact for questions about this application: | |
| Same as another contact? | |
| Organization Name | CITY OF TOMBALL |
| Prefix | MR |
| First | Zachary |
| Middle | |
| Last | Bowman |
| Suffix | |
| Credentials | |
| Title | WWTP Operator |
| Enter new address or copy one from list: | |
| Mailing Address | |

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Domestic 401 MARKET ST

| Routing (such as Mail Code, Dept., or Attn:) | |
|----------------------------------------------|-----------------------|
| City | TOMBALL |
| State | ТХ |
| ZIP | 77375 |
| Phone (###-#####) | 9366973533 |
| Extension | |
| Alternate Phone (###-#####) | |
| Fax (###-#####) | |
| E-mail | ZBOWMAN@TOMBALLTX.GOV |

Technical Contact

| Person TCEQ should contact for questions about this application: | |
|------------------------------------------------------------------|----------------------------|
| Same as another contact? | |
| Organization Name | FREESE AND NICHOLS INC |
| Prefix | MRS |
| First | KATIE |
| Middle | |
| Last | LEATHERWOOD |
| Suffix | |
| Credentials | PG (TBPG) |
| Title | ENVIRONMENTAL SCIENTIST |
| Enter new address or copy one from list: | |
| Mailing Address | |
| Address Type | Domestic |
| Mailing Address (include Suite or Bldg. here, if applicable) | 801 CHERRY ST |
| Routing (such as Mail Code, Dept., or Attn:) | Suite 2800 |
| City | FORT WORTH |
| State | ТХ |
| ZIP | 76102 |
| Phone (###-#####) | 8177357503 |
| Extension | |
| Alternate Phone (###-#####) | |
| Fax (###-#####) | 8177357492 |
| E-mail | KATIE.LEATHERWOOD@FREESE.C |

OM

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

| Same as another contact? | |
|-------------------------------------------------------------------|--------------------------|
| Organization Name | CITY OF TOMBALL |
| Prefix | MR |
| First | Zackary |
| Middle | |
| Last | Bowman |
| Suffix | |
| Credentials | |
| Title | WWTP Operator |
| Enter new address or copy one from list: | |
| Mailing Address: | |
| Address Type | Domestic |
| Mailing Address (include Suite or Bldg. here, if applicable) | 401 MARKET ST |
| Routing (such as Mail Code, Dept., or Attn:) | |
| City | TOMBALL |
| State | ТХ |
| ZIP | 77375 |
| Phone (###-####-####) | 9366973533 |
| Extension | |
| Alternate Phone (###-######) | |
| Fax (###-####-####) | |
| E-mail | zbowman@tomballtx.gov |
| Section 1# Permit Contact | |
| Permit Contact#: 1 | |
| Person TCEQ should contact throughout the permit term. | |
| 1) Same as another contact? | Billing Contact |
| 2) Organization Name | CITY OF TOMBALL |
| 3) Prefix | MR |
| 4) First | WILL |
| 5) Middle | |
| 6) Last | GOFF |
| 7) Suffix | |
| 8) Credentials | |
| 9) Title | UTILITIES SUPERINTENDENT |
| Mailing Address | |
| 10) Enter new address or copy one from list | |
| 11) Address Type | Domestic |
| 44 4) Mailing Adduces (include Ouite on Diday have if emplicable) | |

| cord - rexas commission on Environmental Quarky - www | https://tda.tooq.toxas.gov/stoorsstaff/ |
|--------------------------------------------------------------------|-----------------------------------------|
| 11.2) Routing (such as Mail Code, Dept. or Attn:) | |
| 11.3) City | TOMBALL |
| 11.4) State | TX |
| 11 5) ZIP | 77375 |
| 12) Phone (###-#####) | 2812901400 |
| 13) Extension | 2012001100 |
| 14) Alternate Phone (###-###-####) | |
| 15) Fax (###-###-####) | |
| 16) E-mail | wgoff@tomballtx.gov |
| Section 2# Permit Contact | |
| Permit Contact#: 2 | |
| Person TCEQ should contact throughout the permit term. | |
| 1) Same as another contact? | Application Contact |
| 2) Organization Name | CITY OF TOMBALL |
| 3) Prefix | MR |
| 4) First | Zackary |
| 5) Middle | |
| 6) Last | Bowman |
| 7) Suffix | |
| 8) Credentials | |
| 9) Title | WWTP Operator |
| Mailing Address | |
| 10) Enter new address or copy one from list | |
| 11) Address Type | Domestic |
| 11.1) Mailing Address (include Suite or Bldg. here, if applicable) | 401 MARKET ST |
| 11.2) Routing (such as Mail Code, Dept., or Attn:) | |
| 11.3) City | TOMBALL |
| 11.4) State | ТХ |
| 11.5) ZIP | 77375 |
| 12) Phone (###-######) | 9366973533 |
| 13) Extension | |
| 14) Alternate Phone (###-####-####) | |

15) Fax (###-###-####)

16) E-mail

Owner Information

Owner of Treatment Facility

zbowman@tomballtx.gov

| 1) Prefix | |
|---------------------------------------------------------------------------------|-------------------------|
| 2) First and Last Name | |
| 3) Organization Name | City of Tomball |
| 4) Mailing Address | 401 Market Street |
| 5) City | Tomball |
| 6) State | ТХ |
| 7) Zip Code | 77375 |
| 8) Phone (###-#####) | 2812901400 |
| 9) Extension | |
| 10) Email | desquivel@tomballtx.gov |
| 11) What is ownership of the treatment facility? | Public |
| Owner of Land (where treatment facility is or will be) | |
| 12) Prefix | |
| 13) First and Last Name | |
| 14) Organization Name | City of Tomball |
| 15) Mailing Address | 401 Market Street |
| 16) City | Tomball |
| 17) State | ТХ |
| 18) Zip Code | 77375 |
| 19) Phone (###-#####) | 2812901400 |
| 20) Extension | |
| 21) Email | desquivel@tomballtx.gov |
| 22) Is the landowner the same person as the facility owner or co- applicant? | Yes |

General Information Renewal-Amendment

| 1) Current authorization expiration date: | 11/27/2028 |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 2) Current Facility operational status: | Active |
| 3) Is the facility located on or does the treated effluent cross American Indian Land? | No |
| 4) What is the application type that you are seeking? | Major Amendment with Renewal |
| 4.1) Describe the proposed changes: | Request for relocated outfall update in treatment process, and request for reevaluation of copper requirements. |
| 5) Current Authorization type: | Public Domestic Wastewater |
| 5.1) What is the proposed total flow in MGD discharged at the facility? | 4.5 |
| 5.2) Select the applicable fee | >= 1.0 MGD - Major Amendment - \$2,050 |
| 6) What is the classification for your authorization? | TPDES |
| 6.1) What is the EPA Identification Number? | TX0117595 |

| 6.2) Is the wastewater treatment facility location in the existing permit accurate? | Yes |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.3) Are the point(s) of discharge and the discharge route(s) in the existing permit correct? | No |
| 6.3.1) Provide an accurate description of the point of discharge: | Relocated outfall is being requested 30.06625, -95.608895 |
| 6.3.2) Provide an accurate description of the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307: | to Harris County Flood Control District ditch M121-00-00 thence to Willow Creek thence to Spring Creek in Segment No. 1008 of the San Jacinto River Basin |
| 6.4) City nearest the outfall(s): | Tomball |
| 6.5) County where the outfalls are located: | HARRIS |
| 6.6) 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 |
| 6.6.1) What is your right-of-way authorization status? | Authorization Granted |
| 6.7) Is the daily average discharge at your facility of 5 MGD or more? | No |
| 7) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application? | No |

Public Notice Information

| Individual Publishing the Notices | |
|--------------------------------------------|--------------------------|
| 1) Prefix | MR |
| 2) First and Last Name | Zackary Bowman |
| 3) Credential | |
| 4) Title | WWTP Operator |
| 5) Organization Name | City of Tomball |
| 6) Mailing Address | 401 MARKET ST |
| 7) Address Line 2 | |
| 8) City | TOMBALL |
| 9) State | ТХ |
| 10) Zip Code | 77375 |
| 11) Phone (###-######) | 9366973533 |
| 12) Extension | |
| 13) Fax (###-####-####) | |
| 14) Email | zbowman@tomballtx.gov |
| Contact person to be listed in the Notices | |
| 15) Prefix | MR |
| 16) First and Last Name | Will Goff |
| 17) Credential | |
| 18) Title | Utilities Superintendent |

| 19) Organization Name | City of Tomball |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 20) Phone (###-#####) | 2812901400 |
| 21) Fax (###-#######) | |
| 22) Email | wgoff@tomballtx.gov |
| Bilingual Notice Requirements | |
| 23) 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 |
| 23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school? | Yes |
| 23.2) Do the students at these schools attend a bilingual education program at another location? | Νο |
| 23.3) 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)? | Νο |
| 23.4) Which language is required by the bilingual program? | Spanish |
| Section 1# Public Viewing Information | |

County#: 1

| 1) County | HARRIS |
|----------------------------------------|------------------------------|
| 2) Public building name | City of Tomball Public Works |
| 3) Location within the building | Front Reception Area |
| 4) Physical Address of Building | 501 James Street |
| 5) City | Tomball |
| 6) Contact Name | |
| 7) Phone (###-####-####) | 2812901400 |
| 8) Extension | |
| 9) Is the location open to the public? | Yes |
| | |

Plain Language

| 1) Plain Language | |
|-------------------|------------------------------------------------------------------|
| [File Properties] | |
| File Name | LANG_PLS 20972.pdf |
| Hash | CB7744E8492F663BA92DEE2AE026968855DD47037DBA5F829FE2981067345F18 |
| MIME-Type | application/pdf |

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)

| [File Properties] | | | |
|------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------|--|
| File Name | | SPIF_SPIF 20971.pdf | |
| Hash | 94AB48BB15ADB4096DC6863F8/ | A24B5704B004B0916C78A8AAF2BE2573B760C99 | |
| MIME-Type | application/pdf | | |
| Domestic Attachments | 5 | | |
| 1) Attach an 8.5"x11", reproduce meets the 1:24,000 scale. | ed portion of the most current and origina | al USGS Topographic Quadrangle Map(s) that | |
| [File Properties] | | | |
| File Name | | MAP_Fig1a_Topo.pdf | |
| Hash | 7AA1DAD7EC47DFD2341DF78CC8 | 088B90D78DEED12F646E8B646312D449BF0D5D | |
| MIME-Type | | application/pdf | |
| [File Properties] | | | |
| File Name | | MAP_Fig1b_Topo.pdf | |
| Hash | 9F1187E98D45141D79C2286284 | B156B31E75F3F5351D2A6DCC30FABE81E0949E | |
| MIME-Type | | application/pdf | |
| 2) Copy of the proof of contact of | or approval letter for discharge to public c | ditch or right-of-way | |
| [File Properties] | | | |
| File Name | | DIS_M121 - M500 Agreement btwn COT and HCFCD (with highlights).pdf | |
| Hash | 6C5878A73015B056097114300D | 83258B6FCD9709CF33CAD7F09475FB568C241D | |
| MIME-Type | | application/pdf | |
| 3) Public Involvement Plan attac | hment (TCEQ Form 20960) | | |
| [File Properties] | | | |
| File Name | | PIP_Updated pip-form-tceq-20960.pdf | |
| Hash | 138EDF54C3405F4D0FA87C5BA | A3D1009685E970445530399980C8235D4BD7958 | |
| MIME-Type | | application/pdf | |
| 4) Administrative Report 1.1 | | | |
| [File Properties] | | | |
| File Name | | ARPT_Admin Report 10053 Mar 5 25.pdf | |
| Hash | 0FCB20D1B0D48BD4722F0CD354 | 4045C0D6CBF28136CA5A6E5CB3F1673809C8114 | |
| MIME-Type | | application/pdf | |
| 5) I confirm that all required sec complete and will be included in | tions of Technical Report 1.0 are the Technical Attachment. | Yes | |
| 5.1) I confirm that Technical Rep Technical Attachment. | port 1.1 is complete and included in the | Yes | |

| 5.2) I confirm that Worksheet 2.0 (F included in the Technical Attachment | Receiving Waters) is complete and nt. | Yes |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------|
| 5.3) Are you planning to include Worksheet 2.1 (Stream Physical Characteristics) in the Technical Attachment? | | No |
| 5.4) Are you planning to include Worksheet 4.0 (Pollutant Analyses Requirements) in the Technical Attachment? | | Yes |
| 5.5) Are you planning to include Wo Requirements) in the Technical Atta | orksheet 5.0 (Toxicity Testing achment? | Yes |
| 5.6) I confirm that Worksheet 6.0 (Industrial Waste Contribution) is Yes complete and included in the Technical Attachment. | | |
| 5.7) Are you planning to include Wo Inventory/Authorization Form) in the | orksheet 7.0 (Class V Injection Well e Technical Attachment? | No |
| 5.8) Technical Attachment | | |
| [File Properties] | | |
| File Name | | TECH_Tech Report 10054 Mar 5 25.pdf |
| Hash | F0B313703DA160795BEE4247ED | F84EE34D9046B26512017A2CB904EAF098E8F2 |
| MIME-Type | | application/pdf |
| 6) Affected Landowners Map | | |
| [File Properties] | | |
| File Name | | LANDMP_Fig4_Landowner.pdf |
| Hash | 14BC91027AA19C5FC767B49D2BD | 4D94E71A71207C5AEA4B4663B0CB2DA2FF3D3 |
| MIME-Type | | application/pdf |
| 7) Landowners Cross Reference Li | st | |
| [File Properties] | | |
| File Name | | LANDCRL_Cross Referenced Landowner List.xlsx |
| Hash | 7E5693513097884D6393EC9690 | AE7833ADA0CF5782136286030B8724E3280E73 |
| MIME-Type | | application/vnd.openxmlformats- officedocument.spreadsheetml.sheet |
| 8) Landowner Avery Template | | |
| [File Properties] | | |
| File Name | | LANDAT_Avery 5160 Landowner Labels.docx |
| Hash | 12012573BAB2EAE1335AB266E50 | C5EDB537F286F91116E35DA958B25C7E4D63FC |
| МІМЕ-Туре | | application/vnd.openxmlformats- officedocument.wordprocessingml.document |
| 9) Buffer Zone Map | | |
| [File Properties] | | |
| File Name | | BUFF_ZM_Fig5_Buffer.pdf |
| Hash | 86E31C3048D8C5A6FCDC071508B | 21C562945CDBE9D33B520146D9782D7E1B6C8 |

Copy Of Record - Texas Commission on Environmental Quality - www...

https://ida.tceq.texas.gov/steersstaff/index.cfm

| МІМЕ-Туре | application/pdf |
|----------------------------|-----------------------------------------------------------------------|
| 10) Flow Diagram | |
| [File Properties] | |
| File Name | FLDIA_G-9_12-26-24.pdf |
| Hash | 6EBB747FE7E016E120BFB828179B25B6312E203C694C6F0B74574A4CD73B945A |
| MIME-Type | application/pdf |
| | |
| 11) Site Drawing | |
| [File Properties] | |
| File Name | SITEDR_Fig3_Site.pdf |
| Hash | C41A0B502D69DFF420CDC504C031AB9323A36C7BBA4A361727EB8308C052E986 |
| МІМЕ-Туре | application/pdf |
| 12) Original Photographs | |
| [File Properties] | |
| File Name | ORIGPH Fig6 Photo.pdf |
| Hash | |
| MIME-Type | application/pdf |
| | |
| [File Properties] | |
| File Name | ORIGPH_South WWTP Photos.pdf |
| Hash | B081977640CC6266E395EDAF67F941E05F7030E7E67E9B78E3402BC1AA08E832 |
| MIME-Type | application/pdf |
| 12) Decign Coloulations | |
| [Eilo Proportios] | |
| File Name | DES CAL Design Calculations off |
| Hash | |
| | on 1495A TECDUGEACB521192E4FE6C552521 ADF2424AF1A5 T9DFF2B54565 T96BC |
| | application/put |
| 14) Solids Management Plan | |
| [File Properties] | |
| File Name | SMP_Tomball South WWTP - Sludge Management Plan.pdf |
| Hash | 7A9B91028E380AB6D490C7E0386B9A8F0DFFD68160F5FE738EA28B589C96724E |
| MIME-Type | application/pdf |
| | |
| 15) Water Balance | |
| [File Properties] | |
| File Name | WB_G-9_12-26-24.pdf |
| Hash | 6EBB747FE7E016E120BFB828179B25B6312E203C694C6F0B74574A4CD73B945A |

| MIME-Type | | application/pdf |
|-----------------------|------------------------------|---------------------------------------------------------------|
| 16) Other Attachments | | |
| [File Properties] | | |
| File Name | | OTHER_Core Data Form 10400.pdf |
| Hash | 2DB7F077B580F366EF3771BBEFFE | 31445BB86977FD9BDC08C4AA2A68F957FC6DF |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_SPIF 20971.pdf |
| Hash | 94AB48BB15ADB4096DC6863F8A2 | 24B5704B004B0916C78A8AAF2BE2573B760C99 |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_Fig2_SPIF.pdf |
| Hash | E13D90BD62FF7B0F866F18B9548 | 3E429471EA554289A2B33FC4E7A85A422AF7D1 |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_South Treatment Process Description.pdf |
| Hash | 21CB30213200DDF6A656D62226AF | FFA2C5C4CD34B7B76FAC1622DC7A49373E6D8 |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_REVISED Treatment Unit Dimensions.pdf |
| Hash | FAF5BC6B36C49F3DC6426D2B09E | 340C5139D0173CABC54E14D130E1E79838C615 |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_Copper Re-evaluation.pdf |
| Hash | 667A4A44A1B503EA87CA111890 | 2FF948CC096F023B5F84FF242FBA540888118C |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_Justification.pdf |
| Hash | B0FFB00DB9239DEBFCFA9CF8DF5 | 54B5C6314379E04FF609F4178C7C822C9CBD21 |
| MIME-Type | | application/pdf |
| [File Properties] | | |
| File Name | | OTHER_Revised Nearby WWTPs Justification Tomball South.pdf |

| Hash | EA4B58B0DEEE642DA0DC0C3986791EE2CBFA460AAF1A36DF18C186759ADB4857 |
|-------------------|------------------------------------------------------------------|
| MIME-Type | application/pdf |
| | |
| [File Properties] | |
| File Name | OTHER_Nearby WWTPs map.pdf |
| Hash | EC19586671B33770C18B8CFDEC8443579555287AF7E75E5AE422A905B54CB73F |
| MIME-Type | application/pdf |
| | |
| [File Properties] | |
| File Name | OTHER_City of Tomball - South Plant - Permit |
| | Renewal Report - November 2024.pdf |
| Hash | E2CBD5155F4E2D4584E71FD56AA1B2583A9D26F81A60571358C0A9A82AE00F3B |
| MIME-Type | application/pdf |
| | |
| Certification | |

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

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.

- 1. I am David M Esquivel, the owner of the STEERS account ER049216.
- 2. I have the authority to sign this data on behalf of the applicant named above.
- 3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
- 4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
- 5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
- 6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
- 7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
- 8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0010616002.
- 9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: David M Esquivel OWNER

| Customer Number: | CN600667190 |
|-----------------------|-----------------|
| Legal Name: | City of Tomball |
| Account Number: | ER049216 |
| Signature IP Address: | 198.35.18.210 |

| Signature Date: | 2025-04-07 | |
|--------------------------------------|---------------------------------------------------------------------------|--|
| Signature Hash: | EC82DFC5B94A78718202D3ECAD23BCED88211A38D98E012D085D36B0AA094B75 | |
| Form Hash Code at time of Signature: | BC4DB9A29A1A2A868CB66213CFD4B48F702A7664367275D2994940DF17823745 | |
| Fee Payment | | |
| Transaction by: | The application fee payment transaction was made by ER072817/Nadia Fuller | |
| Paid by: | The application fee was paid by NADIA FULLER | |
| Fee Amount: | \$2000.00 | |
| Paid Date: | The application fee was paid on 2025-04-08 | |
| Transaction/Voucher number: | The transaction number is 582EA000663072 and the voucher number is 761508 | |
| Submission | | |
| | | |

| Reference Number: | The application reference number is 774444 |
|------------------------|-----------------------------------------------------------------|
| Submitted by: | The application was submitted by ER037555/ Katie Leatherwood |
| Submitted Timestamp: | The application was submitted on 2025-04-10 at 08:47:28 CDT |
| Submitted From: | The application was submitted from IP address 97.75.108.6 |
| Confirmation Number: | The confirmation number is 645424 |
| Steers Version: | The STEERS version is 6.89 |
| Permit Number: | The permit number is WQ0010616002 |
| Additional Information | |

Application Creator: This account was created by Katie Leatherwood

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



DOMESTIC WASTEWATER PERMIT APPLICATION **CHECKLIST**

Complete and submit this checklist with the application.

APPLICANT NAME: City of Tomball

PERMIT NUMBER (If new, leave blank): WQ00 10616002

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

| | Y | Ν | |
|------------------------------|-------------|-------------|--------------------------|
| Administrative Report 1.0 | \boxtimes | | Original USGS Map |
| Administrative Report 1.1 | \boxtimes | | Affected Landowners Map |
| SPIF | \boxtimes | | Landowner Disk or Labels |
| Core Data Form | \boxtimes | | Buffer Zone Map |
| Public Involvement Plan Form | \boxtimes | | Flow Diagram |
| Technical Report 1.0 | \boxtimes | | Site Drawing |
| Technical Report 1.1 | \boxtimes | | Original Photographs |
| Worksheet 2.0 | \boxtimes | | Design Calculations |
| Worksheet 2.1 | | \boxtimes | Solids Management Plan |
| Worksheet 3.0 | | \boxtimes | Water Balance |
| 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 | |

For TCEQ Use Only

| Segment Number | County |
|-----------------|--------|
| Expiration Date | Region |
| Permit Number | |

Y

 \boxtimes

 \boxtimes

 \boxtimes

 \boxtimes

 \boxtimes

 \boxtimes

 \boxtimes

 \boxtimes

 \boxtimes

Ν

 \boxtimes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

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

| Flow New/Major Amendment Rene | ewal |
|----------------------------------------|---------|
| <0.05 MGD \$350.00 🗆 \$3 | 15.00 🗆 |
| ≥0.05 but <0.10 MGD \$550.00 □ \$5 | 15.00 🗆 |
| ≥0.10 but <0.25 MGD \$850.00 □ \$8 | 15.00 🗆 |
| ≥0.25 but <0.50 MGD \$1,250.00 □ \$1,2 | 15.00 🗆 |
| ≥0.50 but <1.0 MGD \$1,650.00 □ \$1,6 | 15.00 🗆 |
| ≥1.0 MGD \$2,050.00 ⊠ \$2,0 | 15.00 |

Minor Amendment (for any flow) 150.00

Payment Information:

| Mailed | Check/Money Order Number: Click to enter text | |
|-----------------------------------------|-----------------------------------------------|--|
| | Check/Money Order Amount: Click to enter text | |
| | Name Printed on Check: Click to enter text. | |
| EPAY | Voucher Number: Click to enter text. | |
| Copy of Payment Voucher enclosed? Yes □ | | |

Section 2. Type of Application (Instructions Page 26)

- **a.** Check the box next to the appropriate authorization type.
 - ☑ Publicly-Owned Domestic Wastewater
 - □ Privately-Owned Domestic Wastewater
 - Conventional Wastewater Treatment
- **b.** Check the box next to the appropriate facility status.
 - \boxtimes Active \square Inactive

- **c.** Check the box next to the appropriate permit type.
 - ⊠ TPDES Permit
 - □ TLAP
 - □ TPDES Permit with TLAP component
 - □ Subsurface Area Drip Dispersal System (SADDS)
- **d.** Check the box next to the appropriate application type
 - □ New
 - \boxtimes Major Amendment <u>with</u> Renewal \square Minor Amendment <u>with</u> Renewal
 - □ Major Amendment <u>without</u> Renewal □ Minor Amendment <u>without</u> Renewal
 - Renewal without changesMinor Modification of permit
- e. For amendments or modifications, describe the proposed changes: <u>Request for relocated outfall</u>, <u>update in treatment process</u>, <u>and request for reevaluation of copper requirements</u>.

f. For existing permits:

Permit Number: WQ00 <u>0010616002</u> EPA I.D. (TPDES only): TX <u>0117595</u> Expiration Date: <u>11/28/2028</u>

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

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 Tomball

(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: <u>600667190</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: <u>Mr.</u> | Last Name, First Name: <u>Esquivel, David</u> |
|----------------------------|-----------------------------------------------|
| Title: <u>City Manager</u> | Credential: <u>P.E.</u> |

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: <u>N/A</u> | Last Name, First Name: <u>N/A</u> |
|--------------------|-----------------------------------|
| Title: <u>N/A</u> | Credential: <u>N/A</u> |

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. <u>AR-1</u>

Section 4. Application Contact Information (Instructions Page 27)

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: <u>Mr.</u> | Last Name, First Name: <u>Bowman, Zachary</u> |
|----|------------------------------------------|-----------------------------------------------------------|
| | Title: <u>WWTP Operator</u> | Credential: <u>N/A</u> |
| | Organization Name: City of Tomba | <u>all</u> |
| | Mailing Address: <u>401 Market Stree</u> | t City, State, Zip Code: <u>Tomball, TX 77375</u> |
| | Phone No.: <u>936-697-3533</u> | E-mail Address: <u>zbowman@tomballtx.gov</u> |
| | Check one or both: \square Adn | ninistrative Contact 🛛 🖾 Technical Contact |
| B. | Prefix: <u>Ms.</u> | Last Name, First Name: <u>Leatherwood, Katie</u> |
| | Title: <u>Environmental Scientist</u> | Credential: <u>P.G.</u> |
| | Organization Name: Freese and Ni | ichols, Inc. |
| | Mailing Address: 801 Cherry Street | t, Suite 2800 City, State, Zip Code: Fort Worth, TX 76102 |
| | Phone No.: <u>817-735-7503</u> | E-mail Address: <u>katie.leatherwood@freese.com</u> |
| | Check one or both: \square Adm | ninistrative Contact 🛛 🖾 Technical Contact |

Section 5. Permit Contact Information (Instructions Page 27)

Provide the names and contact information for two individuals that can be contacted throughout the permit term.

| A. | Prefix: <u>Mr.</u> | Last Name, First Name: <u>Bowman, Zachary</u> |
|----|------------------------------------------|---------------------------------------------------|
| | Title: <u>WWTP Operator</u> | Credential: <u>N/A</u> |
| | Organization Name: City of Tomba | <u>11</u> |
| | Mailing Address: <u>401 Market Stree</u> | t City, State, Zip Code: <u>Tomball, TX 77375</u> |

| | Phone No.: <u>936-697-3533</u> | E-mail Address: <u>zbowman@tomballtx.gov</u> |
|----|-------------------------------------------|-------------------------------------------------|
| B. | Prefix: <u>Mr.</u> | Last Name, First Name: <u>Goff, Will</u> |
| | Title: <u>Utilities Superintendent</u> | Credential: <u>N/A</u> |
| | Organization Name: City of Tombal | <u>1</u> |
| | Mailing Address: <u>401 Market Street</u> | City, State, Zip Code: <u>Tomball, TX 77375</u> |
| | Phone No.: <u>281-290-1400</u> | E-mail Address: <u>wgoff@tomballtx.gov</u> |

Section 6. Billing Contact Information (Instructions Page 27)

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: <u>Mr.</u> | Last Name, First Name: <u>Goff, Will</u> |
|-------------------------------------------|-------------------------------------------------|
| Title: <u>Utilities Superintendent</u> | Credential: <u>N/A</u> |
| Organization Name: <u>City of Tomba</u> | <u>11</u> |
| Mailing Address: <u>401 Market Street</u> | City, State, Zip Code: <u>Tomball, TX 77375</u> |
| Phone No.: <u>281-290-1400</u> | E-mail Address: <u>wgoff@tomballtx.gov</u> |

Section 7. DMR/MER Contact Information (Instructions Page 27)

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

| Prefix: <u>Mr.</u> | Last Name, First Name: <u>Bowman, Zachary</u> |
|-------------------------------------------|-------------------------------------------------|
| Title: <u>WWTP Supervisor</u> | Credential: <u>N/A</u> |
| Organization Name: <u>City of Tomba</u> | <u>11</u> |
| Mailing Address: <u>401 Market Street</u> | City, State, Zip Code: <u>Tomball, TX 77375</u> |
| Phone No.: <u>936-697-3533</u> | E-mail Address: <u>zbowman@tomballtx.gov</u> |

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

| Prefix: <u>Mr.</u> | Last Name, First Name: <u>Bowman, Zachary</u> |
|------------------------------------------|---------------------------------------------------|
| Title: <u>WWTP Operator</u> | Credential: <u>N/A</u> |
| Organization Name: <u>City of Tomba</u> | <u>111</u> |
| Mailing Address: <u>401 Market Stree</u> | t City, State, Zip Code: <u>Tomball, TX 77375</u> |
| Phone No.: <u>936-697-3533</u> | E-mail Address: <u>zbowman@tomballtx.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 permit to be listed in the Notices

```
Prefix: <u>Mr.</u> Last Name, First Name: <u>Goff, Will</u>
```

Title: Utilities SuperintendentCredential: N/A

Organization Name: City of Tomball

Mailing Address: <u>401 Market Street</u> City, State, Zip Code: <u>Tomball, TX 77375</u>

Phone No.: <u>281-290-1400</u> E-mail Address: <u>wgoff@tomballtx.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: City of Tomball Public Works

Location within the building: Front Reception Area

Physical Address of Building: <u>501 James Street</u>

City: <u>Tomball</u> County: <u>Harris</u>

Contact (Last Name, First Name): <u>Goff, Will</u>

Phone No.: <u>281-290-1400</u> Ext.: <u>N/A</u>

E. Bilingual Notice Requirements

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

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

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

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

🖾 Yes 🗆 No

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

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

🛛 Yes 🗆 No

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

🗆 Yes 🖾 No

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

🗆 Yes 🖾 No

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

F. Plain Language Summary Template

Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment.

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

G. 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>AR-3</u>

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 29)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN** <u>101609899</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):

City of Tomball South Wastewater Treatment Plant

C. Owner of treatment facility: <u>City of Tomball</u>

Ownership of Facility: 🛛 Public 🗆 Private 🗆 Both 🗖 Federal

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

Prefix: <u>N/A</u> Last Name, First Name: <u>N/A</u>

Title: <u>N/A</u> Credential: <u>N/A</u>

Organization Name: City of Tomball

Mailing Address: <u>401 Market Street</u> City, State, Zip Code: <u>Tomball, TX 77375</u>

Phone No.: <u>281-290-1400</u>

E-mail Address: desquivel@tomballtx.gov

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>

E. Owner of effluent disposal site:

| Prefix: <u>N/A</u> | Last Name, First Name: <u>N/A</u> |
|-------------------------------|-----------------------------------|
| Title: <u>N/A</u> | Credential: <u>N/A</u> |
| Organization 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 Address: <u>N/A</u> |

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: <u>N/A</u>

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

| Prefix: <u>N/A</u> | Last Name, First Name: <u>N/A</u> |
|-------------------------------|-----------------------------------|
| Title: <u>N/A</u> | Credential: <u>N/A</u> |
| Organization 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 Address: <u>N/A</u> |

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: <u>N/A</u>

Section 10. TPDES Discharge Information (Instructions Page 31)

A. Is the wastewater treatment facility location in the existing permit accurate?

🖾 Yes 🗆 No

N/A

If **no**, **or a new permit application**, please give an accurate description:

B. Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

🗆 Yes 🖾 No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

<u>Relocated outfall is being requested. The discharge route will remain the same: to Harris County</u> <u>Flood Control District ditch M121-00-00; thence to Willow Creek; thence to Spring Creek in</u> <u>Segment No. 1008 of the San Jacinto River Basin.</u>

City nearest the outfall(s): <u>Tomball</u>

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

 \boxtimes

Authorization granted

No

Authorization pending

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

Attachment: <u>AR-4</u>

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: <u>N/A</u>

Section 11. TLAP Disposal Information (Instructions Page 32)

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

🗆 Yes 🗆 No

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

N/A

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

N/A

E. For TLAPs, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

Section 12. Miscellaneous Information (Instructions Page 32)

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?

 \Box Yes \Box No \boxtimes 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.

N/A

- **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: N/A

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>

E. Do you owe any penalties to the TCEQ?

🗆 Yes 🖾 No

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

Enforcement order number: <u>N/A</u>

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

Section 13. Attachments (Instructions Page 33)

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

□ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.

Original full-size USGS Topographic Map with the following information:

- Applicant's property boundary
- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information
- 3 miles downstream information (TPDES only)
- All ponds.
- □ Attachment 1 for Individuals as co-applicants

Other Attachments. Please specify: <u>AR-1 (Core Data Form), AR-2 (PLS), AR-3 (PIP), AR-4</u> (Drainage Ditch Authorization), AR-5 (USGS Topo)
Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010616002

Applicant: <u>City of Tomball</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): David Esquivel

Signatory title: <u>City Manager</u>

| Signature: | | Date: | | |
|--------------------------------|----------------|-------|------|---|
| (Use blue ink) | | | | |
| Subscribed and Sworn to before | me by the said | | | |
| on this | day of | | , 20 | · |
| My commission expires on the | day of | | , 20 | |

Notary Public

[SEAL]

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

- **A.** Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:
 - The applicant's property boundaries
 - The facility site boundaries within the applicant's property boundaries
 - The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
 - The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
 - The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
 - The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
 - □ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
 - □ The property boundaries of all landowners surrounding the effluent disposal site
 - □ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
 - □ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located
- **B.** Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.
- **C.** Indicate by a check mark in which format the landowners list is submitted:
 - $\Box \quad \text{USB Drive} \qquad \boxtimes \quad \text{Four sets of labels}$
- **D.** Provide the source of the landowners' names and mailing addresses: <u>Harris Central Appraisal</u> <u>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):

N<u>/A</u>

Section 2. Original Photographs (Instructions Page 38)

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 38)

- **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)?



DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: <u>SPIF-1</u>

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

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

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

Mail this form and the check or money order to:

| BY REGULAR U.S. MAIL | BY OVERNIGHT/EXPRESS MAIL |
|-------------------------------------------|-------------------------------------------|
| Texas Commission on Environmental Quality | Texas Commission on Environmental Quality |
| Financial Administration Division | Financial Administration Division |
| Cashier's Office, MC-214 | Cashier's Office, MC-214 |
| P.O. Box 13088 | 12100 Park 35 Circle |
| Austin, Texas 78711-3088 | Austin, Texas 78753 |

Fee Code: WOP Waste Permit No: Click to enter text.

- 1. Check or Money Order Number: Click to enter text.
- 2. Check or Money Order Amount: Click to enter text.
- 3. Date of Check or Money Order: Click to enter text.
- 4. Name on Check or Money Order: Click to enter text.
- 5. APPLICATION INFORMATION

Name of Project or Site: Click to enter text.

Physical Address of Project or Site: Click to enter text.

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

Staple Check or Money Order in This Space

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 41)

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

Prefix (Mr., Ms., Miss): Click to enter text.

Full legal name (Last Name, First Name, Middle Initial): Click to enter text.

Driver's License or State Identification Number: Click to enter text.

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone Number: Click to enter text. Fax Number: Click to enter text.

E-mail Address: Click to enter text.

CN: Click to enter text.

For Commission Use Only: Customer Number: Regulated Entity Number: Permit Number:

DOMESTIC WASTEWATER PERMIT APPLICATION 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) (<i>Required for all application types. Must be completed in its entirety and sig</i> <i>Note: Form may be signed by applicant representative.</i>) | ined. | \boxtimes | Yes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|------------|
| Correct and Current Industrial Wastewater Permit Application Forms (TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.) | | \boxtimes | Yes |
| Water Quality Permit Payment Submittal Form (Page 19) (Original payment sent to TCEQ Revenue Section. See instructions for mailing | ng ad | ⊠ dress | 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 | N/A | | Yes |
| Landowners Map (See instructions for landowner requirements) | N/A | \boxtimes | Yes |

Things to Know:

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

| Landowners Cross Reference List (See instructions for landowner requirements) | | N/A | \boxtimes | Yes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|-------------|-----|
| Landowners Labels or USB Drive attached (See instructions for landowner requirements) | | N/A | \boxtimes | Yes |
| Original signature per 30 TAC § 305.44 – Blue Ink Preferred (If signature page is not signed by an elected official or principle exect a copy of signature authority/delegation letter must be attached) | rutive | e officer | ⊠ | Yes |
| Plain Language Summary | | | \boxtimes | Yes |
| | | | | |



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

| 1. Reason for Submission (If other is checked please describe in space provided.) | | | | | | | | | |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------|--|--|--|--|--|--|--|
| | | | | | | | | | |
| New Permit, Registration or Authorization (Core Data I | Form should be submitted with | the program application.) | | | | | | | |
| | | | | | | | | | |
| Renewal (Core Data Form should be submitted with the | e renewal form) | Other Amendment | | | | | | | |
| | • | | | | | | | | |
| 2. Customer Reference Number (if issued) | 2. Customer Reference Number (if issued) Follow this link to search 3. Regulated Entity Reference Number (if issued) | | | | | | | | |
| <u>tor CN or RN numbers in</u> | | | | | | | | | |
| CN 600667190 Central Registry RN 101609899 | | | | | | | | | |
| | | | | | | | | | |

SECTION II: Customer Information

| 4. General Cu | 1. General Customer Information 5. Effective Date for Customer Information Updates (mm/dd/yyyy) 12/20/2024 | | | | | | | | 12/20/2024 | | | | |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------|------------------|------------------|---------------------|------------------------------------|-------|----------------|---------------|----------------|-----------|---------------|----------------|
| New Customer Update to Customer Information Change in Regulated Entity Ownership | | | | | | | | | | | | | |
| Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts) | | | | | | | | | | | | | |
| The Custome | · Nama a | .h.mitto | | a undertad | | | . d | hatio a | | and active | | a Tayna Can | atoms of State |
| (SOS) or Texa | s Comptro | oller of I | Public Accou | nts (CPA). | uutomatican | iy buse | u ur | i what is ci | unent | unu uctive | with th | ie iexus seci | elary of State |
| 6. Customer I | Legal Nan | ne (If an i | individual, prir | nt last name f | irst: eg: Doe, J | lohn) | | | <u>lf new</u> | / Customer, | enter pre | evious Custom | er below: |
| City of Tomball | | | | | | | | | | | | | |
| 7. TX SOS/CP | A Filing N | umber | | 8. TX State | Tax ID (11 d | igits) | | | 9. Fe | deral Tax II | D | 10. DUNS I | Number (if |
| | | | | | | | | | <i>(</i> - 1) | | | applicable) | |
| | | | | | | | | | (9 dig | its) | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 11. Type of C | ustomer: | | Corporat | ion | | | | 🗌 Individ | lual | | Partne | ership: 🗌 Gen | eral 🗌 Limited |
| Government: 🛛 | 🛛 City 🗌 | County [| Federal | Local 🗌 Stat | e 🗌 Other | | | Sole Pr | roprieto | rship | 🗌 Ot | her: | |
| 12. Number o | of Employ | ees | | | | | | | 13. lr | ndepender | ntly Ow | ned and Ope | erated? |
| 0-20 | 21-100 [| 101-25 | 50 🛛 251- | 500 🗌 502 | 1 and higher | | | | 🖂 Ye | s (| No | | |
| 11.0 | Dala (D | | A 1 1) 1 | | | | | | | | | | |
| 14. Customer | r Kole (Pro | posed or | Actual) – as n | t relates to the | e Regulated Er | ntity list | ed or | n this form. I | Please c | check one of | the folic | owing | |
| Owner | | 🗌 Ope | erator | 0 🛛 | wner & Opera | tor | | | | | | | |
| | al Licensee | 🗌 Re | esponsible Par | rty 🗌 | VCP/BSA App | olicant | | | | | | | |
| | 401 Mar | ket Street | t | | | | | | | | | | |
| 15. Mailing | | | | | | | | | | | | | |
| Address | | | | | | | | | | | | | |
| Address: City Tomball State TX ZIP 77375 ZIP + 4 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 16. Country N | Mailing In | formatio | on (if outside | USA) | | | 17 | . E-Mail Ac | dress | (if applicable | e) | | |
| | | | | | | | de | squivel@tor | nballtx. | gov | | | |
| 18. Telephone Number 19. Extension of | | | | | on or C | ode 20. Fax Number (if applicable) | | | | | | | |

SECTION III: Regulated Entity Information

| 21. General Regulated Entity Information (If 'New Regulated Entity" is selected, a new permit application is also required.) | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|-------------------|---------------|---------------|---------------------|---------------|--|--|--|
| New Regulated Entity Update to Regulated Entity Name 🛛 Update to Regulated Entity Information | | | | | | | | | | |
| The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC). | | | | | | | | | | |
| 22. Regulated Entity Nan | ne (Enter nam | ne of the site where | the regulated act | ion is taking | olace.) | | | | | |
| City of Tomball South WWTF | City of Tomball South WWTP | | | | | | | | | |
| 23. Street Address of | N/A | | | | | | | | | |
| the Regulated Entity: | | | | | | | | | | |
| <u>(No PO Boxes)</u> | City | Tomball | State | ТХ | ZIP | 77375 | ZIP + 4 | | | |
| 24. County | 24. County Harris | | | | | | | | | |
| If no Street Address is provided, fields 25-28 are required. | | | | | | | | | | |
| 25. Description to | Located off | Holderrieth Rd, ap | proximately 4,800 | feet east of | he intersecti | on of SH 249 and Ho | olderrieth Rd | | | |

| Physical Location: | | | | | | | | | |
|------------------------------------------------------|-----------------------|--------------------------------------|--------------------------------------------|---------------------------|-------------|-------------|---------------|------------|----------------|
| 26. Nearest City | | | | | | State | | Nea | rest ZIP Code |
| Tomball | | | | | | ТХ | | 7737 | 5 |
| Latitude/Longitude are r used to supply coordinat | equired c es where | and may be added none have been p | l/updated to meet 1 provided or to gain | TCEQ Core D accuracy). | ata Standai | rds. (Geoc | oding of the | e Physical | Address may be |
| 27. Latitude (N) In Decim | al: | 30.066401 | | 28. Lo | ongitude (W | /) In Decim | nal: | -95.60888 | 32 |
| Degrees | Minutes | | Seconds | Degre | es | Mi | nutes | | Seconds |
| 30 | | 3 | 59.0436 | | 95 | | 36 | | 31.9752 |
| 29. Primary SIC Code | | 30. Secondary SIC | Code | 31. Primar | y NAICS Co | de | 32. Secon | dary NAIC | CS Code |
| (4 digits) | | (4 digits) | | (5 or 6 digit | ts) | | (5 or 6 digi | its) | |
| 4952 | | | | 221320 | | | | | |
| 33. What is the Primary B | Business | of this entity? (D | o not repeat the SIC o | r NAICS descr | iption.) | | | | |
| Domestic wastewater treatm | nent | | | | | | | | |
| | 401 Ma | arket St. | | | | | | | |
| 34. Mailing | | | | | | | | | |
| Address: | City | 7 Tomball | State | тх | ZIP | 77375 | | ZIP + 4 | 4645 |
| 35. E-Mail Address: | | desquivel@tomballt | x.gov | | | • | | | |
| 36. Telephone Number | | | 37. Extension or | Code | 38. Fa | ax Numbei | (if applicabl | le) | |
| (281) 290-1400 | | | | | (281) | 351-4735 | | | |

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

| Dam Safety | Districts | Edwards Aquifer | Emissions Inventory Air | Industrial Hazardous Waste |
|-----------------------|-----------------------|------------------------|-------------------------|----------------------------|
| | | | | |
| Municipal Solid Waste | New Source Review Air | ☐ OSSF | Petroleum Storage Tank | D PWS |
| | | | | |
| Sludge | Storm Water | 🗌 Title V Air | Tires | Used Oil |
| | TXR05FK69 | | | |
| Voluntary Cleanup | Vastewater | Wastewater Agriculture | Water Rights | Other: |
| | WQ0010616002 | | | |

SECTION IV: Preparer Information

| 40. Name: | 40. Name: Katie Leatherwood | | 41. Title: | Environmental Scientist | | |
|------------------|------------------------------------|------------------|----------------|-------------------------|--|--|
| 42. Telephone | Number | 43. Ext./Code | 44. Fax Number | 45. E-Mail Address | | |
| (817) 735-7503 | | (817) 735-7492 | katie.leather | wood@freese.com | | |

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

| Company: | Freese and Nichols, Inc | Job Title: | Environme | ental Scientist | |
|------------------|-------------------------|------------|--------------------------|-----------------|--|
| Name (In Print): | Katie Leatherwood | Phone: | (817) 735- 7503 | | |
| Signature: | Hati Teatherwood | | | Date: | |

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

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

Applicants should use this template to develop a plain language summary as required by <u>Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H</u>. Applicants 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 highlighted areas below to describe your facility and application in plain language. 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 TAC Section 39.426</u>, <u>you must provide a translated copy of the completed plain language summary in the</u> <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/STORMWATER

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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

The City of Tomball (CN600667190) operates the City of Tomball South WWTP (RN101609899), a conventional activated sludge facility. The facility is located off Holderrieth Rd, approximately 4,800 feet east of the intersection of SH 249 and Holderrieth Rd, in Tomball, Harris County, Texas 77375.

This application is for a major amendment to the wastewater treatment facility to add a relocated outfall, revise the treatment process, and request a reevaluation of the copper requirements.

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 an activated sludge process, and treatment units include fine screening, vortex grit system, oxidation ditch, clarifiers, and chlorine contact basins, which will be replaced by ultraviolet disinfection in the Interim II phase.

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

AGUAS RESIDUALES DOMÉSTICAS /AGUAS PLUVIALES

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 es una representación ejecutiva fedérale de la solicitud de permiso.

La Ciudad of Tomball (CN600667190) opera City of Tomball South WWTP (RN101609899), una instalación convencional de lodos activados. La instalación está ubicada en Holderrieth Rd, aproximadamente 4,800 pies al este de la intersección de SH 249 y Holderrieth Rd, en Tomball, condado de Harris, Texas 77375.

Esta solicitud es para una enmienda importante a la instalación de tratamiento de aguas residuales para agregar un desagüe adicional, revisar el proceso de tratamiento y solicitar una reevaluación de los requisitos de cobre.

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 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 un proceso de lodos activados y las unidades de tratamiento incluyen cribado fino, sistema de arena vortex, zanja de oxidación, clarificadores y cloro gaseoso, que serán reemplazados por desinfección ultravioleta en la fase Interina II.



⁷ 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)

New Activity - mounication, registration, amenument, racinty, 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

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.

| Section 3. Application Information | | | | | | | | | |
|------------------------------------|---------------------------------|--------------------------------|---------------------------|-------------------------------------|--------------------------------|--|--|--|--|
| Type of A | pplication | (check all th | at apply): | | | | | | |
| Air | Initial | Federal | Amendment | Standard Permit | Title V | | | | |
| Waste | Municipal Radioacti | l Solid Waste ve Material I | Industrial a Industrial a | nd Hazardous Waste Underground I | Scrap Tire njection Control | | | | |
| Water Qua | lity | | | | | | | | |
| Texas F | ollutant Di | ischarge Elin | nination System (| TPDES) | | | | | |
| Tex | as Land Ap | pplication Pe | rmit (TLAP) | | | | | | |
| Stat | te Only Coi | ncentrated A | nimal Feeding Op | oeration (CAFO) | | | | | |
| Wat | ter Treatm | ent Plant Res | siduals Disposal F | Permit | | | | | |
| Class B | Biosolids I | Land Applica | tion Permit | | | | | | |
| Domes | tic Septage | Land Applic | ation Registration | 1 | | | | | |
| | | | | | | | | | |
| Water Righ | ts New Per | mit | | | | | | | |
| New Ap | opropriatio | n of Water | | | | | | | |
| New or | existing re | eservoir | | | | | | | |
| | | | | | | | | | |
| Amendmen | nt to an Exi | isting Water | Right | | | | | | |
| Add a M | New Appro | priation of V | Vater | | | | | | |
| Add a M | Add a New or Existing Reservoir | | | | | | | | |
| Major A | Amendmen | t that could | affect other wate | r rights or the enviro | nment | | | | |

Section 4. Plain Language Summary

Provide a brief description of planned activities.

| 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) | | | | | |
| (Country) | | | | | |
| (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 | | | | | |
| (a) referre of Emigatorically footated from the operation of the operation | | | | | |
| | | | | | |
| (e) Languages commonly spoken in area by percentage | | | | | |
| | | | | | |
| (f) Community and (an Staliahaldan Crauna | | | | | |
| (1) 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 rule? | | | | | |
| Yes No | | | | | |
| If Yes, please describe. | | | | | |
| If you answered "yes" that this application is subject to 30 TAC Chapter 39, | | | | | |
| (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 | | | | | |
| (f) Hard copies of the application will be available at the following (check all that apply): | | | | | |
| TCEQ Regional Office TCEQ Central Office | | | | | |
| 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?

Yes No

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)







Affected Landowner Map Cross Referenced List

| | GARDENS AT TOMBALL LP | | WOTTRICH DONALD A ESTATE OF |
|---|--------------------------------------|----|-------------------------------|
| 1 | 3110 W SOUTHLAKE BLVD STE 120 | 9 | 6402 CINDY LN |
| | SOUTHLAKE TX 76092-6772 | | HOUSTON TX 77008-3212 |
| | HOLDERRIETH ROAD LAND HOLDINGLS LP | | COUNTY OF HARRIS |
| 2 | 3110 W SOUTHLAKE BLVD STE 120 | 10 | PO BOX 1525 |
| | SOUTHLAKE TX 76092-6772 | | HOUSTON TX 77251-1525 |
| | TURRUBIARTES JOSE | | HEAREN CHELSEY LYN |
| 3 | 13411 SUNDALE RD | 11 | 11810 BOUDREAUX RD |
| | HOUSTON TX 77038-1521 | | TOMBALL TX 77375-7300 |
| | LANG CAROLYN | | WHITCHURCH JAMES W |
| 4 | 7118 COLE CREEK DR | 12 | 11808 E JANE LN |
| | HOUSTON TX 77092-1421 | | TOMBALL TX 77375-7377 |
| | | | |
| E | | 12 | |
| 5 | | 12 | |
| | TOWBALL IX 77373-4043 | | TOWBALL IX //3/3-/3// |
| | HARRIS COUNTY FLOOD CONTROL DISTRICT | | MAJANO JOSE & DORIS |
| 6 | 9900 NORTHWEST FWY | 14 | 11808 E JANE LANE |
| | HOUSTON TX 77092-8601 | | TOMBALL TX 77375 |
| | GOWER CONSTRUCTION CO | | HARRIS COUNTY MUD NO 368 |
| 7 | 4545 FALCON CREST LN | 15 | 11111 KATY FWY STE 725 |
| | CLEVELAND TX 77328-2913 | | HOUSTON TX 77079-2175 |
| 8 | EAS BOUDREAUX LLC | | ENTERPRISE CRUDE PIPELINE LLC |
| | 15120 NORTHWEST FWY STE 190 | 16 | PO BOX 4018 |
| | HOUSTON TX 77040-3205 | | HOUSTON TX 77210-4018 |
| | | | MUELLER ALLEN H |
| | | 17 | 5835 TEAGUE RD |
| | | | HOUSTON TX 77041-6146 |

GARDENS AT TOMBALL LP 3110 W SOUTHLAKE BLVD STE 120 SOUTHLAKE TX 76092-6772

> LANG CAROLYN 7118 COLE CREEK DR HOUSTON TX 77092-1421

GOWER CONSTRUCTION CO 4545 FALCON CREST LN CLEVELAND TX 77328-2913

COUNTY OF HARRIS PO BOX 1525 HOUSTON TX 77251-1525

HALL DAVID ALEXANDER AND CRISTELA N 11808 E JANE LN UNIT A TOMBALL TX 77375-7377 HOLDERRIETH ROAD LAND HOLDINGLS LP 3110 W SOUTHLAKE BLVD STE 120 SOUTHLAKE TX 76092-6772

> CITY OF TOMBALL 401 W MARKET ST TOMBALL TX 77375-4645

EAS BOUDREAUX LLC 15120 NORTHWEST FWY STE 190 HOUSTON TX 77040-3205

HEAREN CHELSEY LYN 11810 BOUDREAUX RD TOMBALL TX 77375-7300

MAJANO JOSE & DORIS 11808 E JANE LANE TOMBALL TX 77375 TURRUBIARTES JOSE 13411 SUNDALE RD HOUSTON TX 77038-1521

HARRIS COUNTY FLOOD CONTROL DISTRICT 9900 NORTHWEST FWY HOUSTON TX 77092-8601

WOTTRICH DONALD A ESTATE OF 6402 CINDY LN HOUSTON TX 77008-3212

> WHITCHURCH JAMES W 11808 E JANE LN TOMBALL TX 77375-7377

HARRIS COUNTY MUD NO 368 11111 KATY FWY STE 725 HOUSTON TX 77079-2175



<u>Tomball South WWTP</u> <u>Original Site Photographs</u>



Photo 1. Outfall Discharge Point and Flood Control Ditch, looking downstream.

Photo 2. Outfall Discharge Point and Flood Control Ditch, looking upstream.



Photo 3. Outfall Discharge Point and Flood Control Drainage Ditch, looking across outfall.



Photo 4. Expanded Treatment Location, looking south.



Photo 5. Expanded Treatment Location, looking west.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

| TCEQ USE ONLY: | | | | | |
|-----------------------------------------------------------|------------------------------|--|--|--|--|
| Application type:RenewalMajor AmendmentMinor AmendmentNew | | | | | |
| County: Segment Number: | | | | | |
| Admin Complete Date: | _ | | | | |
| Agency Receiving SPIF: | | | | | |
| Texas Historical Commission | U.S. Fish and Wildlife | | | | |
| Texas Parks and Wildlife Department | U.S. Army Corps of Engineers | | | | |
| | | | | | |

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

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at <u>WQ-ARPTeam@tceq.texas.gov</u> or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: <u>City of Tomball</u>

Permit No. WQ00 <u>10616002</u>

EPA ID No. TX <u>0117595</u>

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

Located approximately 4,800 feet east of the intersection of Holderrieth Road and State Highway 249 in Harris County, Texas 77375 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>Will Goff</u> Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u> Title: <u>Utilities Superintendent</u> Mailing Address: <u>401 Market Street</u> City, State, Zip Code: <u>Tomball, TX 77375</u> Phone No.: <u>281-290-1400</u> Ext.: <u>N/A</u> Fax No.: <u>281-351-4735</u> E-mail Address: <u>wgoff@tomballtx.gov</u>

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

<u>N/A</u>

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.

<u>Discharge to Harris County Flood Control District ditch M121-00-00, thence to Willow</u> <u>Creek, thence to Spring Creek in Segment No. 1008 of the San Jacinto River Basin</u>

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- Proposed access roads, utility lines, construction easements
- □ Visual effects that could damage or detract from a historic property's integrity
- □ Vibration effects during construction or as a result of project design
- Additional phases of development that are planned for the future
- □ Sealing caves, fractures, sinkholes, other karst features

- Disturbance of vegetation or wetlands
- 1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

The proposed construction is what was provided in the previous amendment application for the facility expansion, including new treatment structures and access roads.

Describe existing disturbances, vegetation, and land use:
<u>The property consists of maintained grass with paved driveways and wastewater treatment units.</u>

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

- 3. List construction dates of all buildings and structures on the property: N/A
- 4. Provide a brief history of the property, and name of the architect/builder, if known. <u>N/A</u>

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

| TCEQ USE ONLY: | | | | | |
|-----------------------------------------------------------|------------------------------|--|--|--|--|
| Application type:RenewalMajor AmendmentMinor AmendmentNew | | | | | |
| County: Segment Number: | | | | | |
| Admin Complete Date: | _ | | | | |
| Agency Receiving SPIF: | | | | | |
| Texas Historical Commission | U.S. Fish and Wildlife | | | | |
| Texas Parks and Wildlife Department | U.S. Army Corps of Engineers | | | | |
| | | | | | |

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

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at <u>WQ-ARPTeam@tceq.texas.gov</u> or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: <u>City of Tomball</u>

Permit No. WQ00 <u>10616002</u>

EPA ID No. TX <u>0117595</u>

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

Located approximately 4,800 feet east of the intersection of Holderrieth Road and State Highway 249 in Harris County, Texas 77375 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>Will Goff</u> Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u> Title: <u>Utilities Superintendent</u> Mailing Address: <u>401 Market Street</u> City, State, Zip Code: <u>Tomball, TX 77375</u> Phone No.: <u>281-290-1400</u> Ext.: <u>N/A</u> Fax No.: <u>281-351-4735</u> E-mail Address: <u>wgoff@tomballtx.gov</u>

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

<u>N/A</u>

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.

<u>Discharge to Harris County Flood Control District ditch M121-00-00, thence to Willow</u> <u>Creek, thence to Spring Creek in Segment No. 1008 of the San Jacinto River Basin</u>

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- Proposed access roads, utility lines, construction easements
- □ Visual effects that could damage or detract from a historic property's integrity
- □ Vibration effects during construction or as a result of project design
- Additional phases of development that are planned for the future
- □ Sealing caves, fractures, sinkholes, other karst features

- Disturbance of vegetation or wetlands
- 1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

The proposed construction is what was provided in the previous amendment application for the facility expansion, including new treatment structures and access roads.

Describe existing disturbances, vegetation, and land use:
<u>The property consists of maintained grass with paved driveways and wastewater treatment units.</u>

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

- 3. List construction dates of all buildings and structures on the property: N/A
- 4. Provide a brief history of the property, and name of the architect/builder, if known. <u>N/A</u>





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

A. Existing/Interim I Phase

Design Flow (MGD): <u>1.5</u> 2-Hr Peak Flow (MGD): <u>6.0</u> Estimated construction start date: <u>N/A</u> Estimated waste disposal start date: <u>N/A</u>

B. Interim II Phase

Design Flow (MGD): <u>3.0</u> 2-Hr Peak Flow (MGD): <u>12.0</u> Estimated construction start date: <u>2025</u> Estimated waste disposal start date: <u>December 2027</u>

C. Final Phase

Design Flow (MGD): <u>4.5</u> 2-Hr Peak Flow (MGD): <u>18.0</u> Estimated construction start date: <u>2038</u> Estimated waste disposal start date: <u>2040</u>

D. Current Operating Phase

Provide the startup date of the facility: <u>Existing: August 1, 2001</u>

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

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

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

<u>TR-1</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.**

Table 1.0(1) - Treatment Units

| Treatment Unit Type | Number of Units | Dimensions (L x W x D) |
|---------------------|-----------------|------------------------|
| <u>TR-2</u> | | |
| | | |
| | | |
| | | |
| | | |
| | | |

C. Process Flow Diagram

Provide flow diagrams for the existing facilities and **each** proposed phase of construction. **Attachment**: <u>TR-3</u>

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

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

- Current Outfall Latitude: <u>30.066401</u>
- Current Outfall Longitude: <u>-95.608882</u>
- Additional Outfall Latitude: <u>30.06625</u>
- Additional Outfall Longitude: <u>-95.608895</u>

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

- Latitude: <u>N/A</u>
- Longitude: <u>N/A</u>

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: TR-4

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

| Southern half of City of Tomball | | |
|----------------------------------|--|--|
| | | |
| | | |
| | | |
| | | |

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

Collection System Information

| Collection System Name | Owner Name | Owner Type | Population Served |
|------------------------|-----------------|-----------------|-------------------|
| South Service Area | City of Tomball | Publicly Owned | 8,000 |
| | | Choose an item. | |
| | | Choose an item. | |
| | | Choose an item. | |

Section 4. Unbuilt Phases (Instructions Page 45)

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

□ Yes ⊠ No

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

🗆 Yes 🗆 No

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

N/A – not a renewal application

Section 5. Closure Plans (Instructions Page 45)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?

🖾 Yes 🗆 No

If yes, was a closure plan submitted to the TCEQ?

🗆 Yes 🖂 No

If yes, provide a brief description of the closure and the date of plan approval.

<u>In Interim II Phase, the existing oxidation ditch will be taken out of service. The existing chlorine contact basin will no longer be used for chlorine and will be repurposed as a storage basin for non-potable water. A closure plan will be submitted to TCEQ for a review at least 90 days prior to conducting such activity.</u>

Section 6. Permit Specific Requirements (Instructions Page 45)

For applicants with an existing permit, check the Other Requirements or Special Provisions of the permit.

A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

🖾 Yes 🗆 No

If yes, provide the date(s) of approval for each phase: May 24, 1999

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>Preliminary designs for the expansion are still in progress. A summary transmittal letter will be</u> <u>submitted at a later time.</u>

B. Buffer zones

Have the buffer zone requirements been met?

🖾 Yes 🗆 No

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

Buffer zone is met by property ownership.

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*.

<u>Prior to the construction of the 3.0 MGD and 4.50 MGD wastewater treatment facilities, the</u> permittee shall submit a summary transmittal letter in accordance with the requirements in <u>30</u> TAC § 217.6(d).

The permittee shall notify the TCEQ Regional Office (MC Region 12 and the Applications Review and Processing Team (MC 148) of the Water Quality Division, as well as the Harris County Pollution Control Services Department, in writing at least forty-five days prior to the completion of the new facility on Notification of Completion Form 20007.

<u>The permittee shall comply with the following schedule of activities for the attainment of</u> water quality-based final effluent limitations for Copper at Outfall 001. A request for reevaluation of copper requirements is included in Attachment TR-5.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

🗆 Yes 🖾 No

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

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

N/A

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 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.

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

N/A

E. Stormwater management

1. Applicability

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

🖾 Yes 🗆 No

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

🗆 Yes 🖾 No

If no to both of the above, then skip to Subsection F, Other Wastes Received.

2. MSGP coverage

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

🖾 Yes 🗆 No

If yes, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 FK69 or TXRNE Click to enter text.

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:

N/A

4. Existing coverage in individual permit

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

🗆 Yes 🗆 No

If yes, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

N/A

5. Zero stormwater discharge

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

🗆 Yes 🗆 No

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.

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, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions. <u>TR-6</u>

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

1. Acceptance of sludge from other WWTPs

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

🗆 Yes 🗵 No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an

estimate of the BOD₅ concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

🗆 Yes 🖾 No

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

🗆 Yes 🗆 No

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

🗆 Yes 🗆 No

If yes to any of the above, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the septic waste, and the

design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)

Is or will the facility accept wastes that are not domestic in nature excluding the categories listed above?

🗆 Yes 🖾 No

If yes, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

N/A

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

Is the facility in operation?

⊠ Yes □ No

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

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

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

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|-----------------------------------------|------------------|--------------|-------------------|----------------|---------------------|
| CBOD ₅ , mg/l | <2.03 | <2.03 | 1 | Grab | 11/7/24 9:00 |
| Total Suspended Solids, mg/l | <1.0 | <1.0 | 1 | Grab | 11/7/24 9:00 |
| Ammonia Nitrogen, mg/l | < 0.04 | < 0.04 | 1 | Grab | 11/7/24 9:00 |
| Nitrate Nitrogen, mg/l | 11.3 | 11.3 | 1 | Grab | 11/7/24 9:00 |
| Total Kjeldahl Nitrogen, mg/l | <1.0 | <1.0 | 1 | Grab | 11/7/24 9:00 |
| Sulfate, mg/l | 37.2 | 37.2 | 1 | Grab | 11/7/24 9:00 |
| Chloride, mg/l | 120 | 120 | 1 | Grab | 11/7/24 9:00 |
| Total Phosphorus, mg/l | 4.83 | 4.83 | 1 | Grab | 11/7/24 9:00 |
| pH, standard units | 7.25 | 7.25 | 1 | Grab | 11/7/24 9:00 |
| Dissolved Oxygen*, mg/l | 7.31 | 7.31 | 1 | Grab | 11/7/24 9:00 |
| Chlorine Residual, mg/l | 0.70 | 0.70 | 1 | Grab | 11/7/24 9:00 |
| <i>E.coli</i> (CFU/100ml) freshwater | 8.6 | 8.6 | 1 | Grab | 11/7/24 9:00 |
| Entercocci (CFU/100ml) saltwater | N/A | N/A | N/A | N/A | N/A |
| Total Dissolved Solids, mg/l | 488 | 488 | 1 | Grab | 11/7/24 9:00 |
| Electrical Conductivity, µmohs/cm, † | 868 | 868 | 1 | Grab | 11/7/24 9:00 |
| Oil & Grease, mg/l | < 5.0 | < 5.0 | 1 | Grab | 11/7/24 9:00 |
| Alkalinity (CaCO ₃)*, mg/l | 181 | 181 | 1 | Grab | 11/7/24 9:00 |

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

*TPDES permits only

†TLAP permits only

Table1.0(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 | | N/A | | | |
| Fluoride, mg/l | | | | | |
| Aluminum, mg/l | | | | | |
| Alkalinity (CaCO ₃), mg/l | | | | | |

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Zachary Bowman

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

Facility Operator's License Number: WW0068130

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

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

- \boxtimes Design flow>= 1 MGD
- \boxtimes Serves >= 10,000 people
- □ Class I Sludge Management Facility (per 40 CFR § 503.9)
- □ Biosolids generator
- □ Biosolids end user land application (onsite)
- □ Biosolids end user surface disposal (onsite)
- □ Biosolids end user incinerator (onsite)

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- Aerobic Digestion
- Air Drying (or sludge drying beds)
- □ Lower Temperature Composting
- □ Lime Stabilization
- □ Higher Temperature Composting
- □ Heat Drying
- □ Thermophilic Aerobic Digestion
- □ Beta Ray Irradiation
- □ Gamma Ray Irradiation
- □ Pasteurization
- □ Preliminary Operation (e.g. grinding, de-gritting, blending)
- Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- □ Sludge Lagoon
- □ Temporary Storage (< 2 years)
- $\Box \quad \text{Long Term Storage (>= 2 years)}$
- □ Methane or Biogas Recovery
- □ Other Treatment Process: <u>Click to enter text.</u>

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize

all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

| Management Practice | Handler or Preparer Type | Bulk or Bag Container | Amount (dry metric tons) | Pathogen Reduction Options | Vector Attraction Reduction Option |
|-------------------------------------|---------------------------------------------------|--------------------------|-----------------------------|------------------------------------------|---------------------------------------------------------------------------------|
| Agricultural Land Application | Off-site Third-Party Handler or Preparer | Bulk | 234.1 | Class B: Density of Fecal Coliform | Option 4: SOUR <=1.5 mg 02/hr/g total solids at 20C (<2% solids) |

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): N/A

D. Disposal site

Disposal site name: Carl Miller Farms/K-3 Resources LP

TCEQ permit or registration number: <u>WQ0005248000/WQ0004445000</u>

County where disposal site is located: <u>Waller</u>

E. Transportation method

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

Name of the hauler: <u>K-3 Resources LP</u>

Hauler registration number: <u>22430</u>

Sludge is transported as a:

Liquid 🗆

semi-liquid 🗆

semi-solid 🛛

solid 🗆

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

A. Beneficial use authorization

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

🗆 Yes 🖂 No

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

🗆 Yes 🗆 No

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

□ Yes □ No

B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

| Sludge Composting | Yes | \boxtimes | No |
|--------------------------------------------|-----|-------------|----|
| Marketing and Distribution of sludge | Yes | \boxtimes | No |
| Sludge Surface Disposal or Sludge Monofill | Yes | \boxtimes | No |
| Temporary storage in sludge lagoons | Yes | \boxtimes | No |

If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

□ Yes □ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

🗆 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: Click to enter text.

• USDA Natural Resources Conservation Service Soil Map:

Attachment: Click to enter text.

• Federal Emergency Management Map:

Attachment: Click to enter text.

• Site map:

Attachment: Click to enter text.

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: <u>Click to enter text.</u>

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:

N/A

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: Click to enter text. Total Kjeldahl Nitrogen, mg/kg: Click to enter text. Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: <u>Click to enter text.</u> Phosphorus, mg/kg: Click to enter text. Potassium, mg/kg: Click to enter text. pH, standard units: Click to enter text. Ammonia Nitrogen mg/kg: Click to enter text. Arsenic: Click to enter text. Cadmium: Click to enter text. Chromium: Click to enter text. Copper: Click to enter text. Lead: Click to enter text. Mercury: Click to enter text. Molybdenum: Click to enter text. Nickel: Click to enter text. Selenium: Click to enter text. Zinc: Click to enter text.

Total PCBs: <u>Click to enter text.</u>

Provide the following information:

Volume and frequency of sludge to the lagoon(s): <u>Click to enter text.</u>

Total dry tons stored in the lagoons(s) per 365-day period: Click to enter text.

Total dry tons stored in the lagoons(s) over the life of the unit: Click to enter text.

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

□ Yes □ No

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)
 Attachment: <u>Click to enter text.</u>
- Copy of the closure plan
 Attachment: Click to enter text.
- Copy of deed recordation for the site Attachment: Click to enter text.
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons Attachment: <u>Click to enter text.</u>
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

Attachment: Click to enter text.

• Procedures to prevent the occurrence of nuisance conditions

Attachment: Click to enter text.

E. Groundwater monitoring

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

□ Yes □ No

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

Attachment: Click to enter text.

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

A. Additional authorizations

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

🗆 Yes 🗵 No

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

N/A

N/A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

🗆 Yes 🗵 No

Is the permittee required to meet an implementation schedule for compliance or enforcement?

🗆 Yes 🗵 No

If yes to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

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

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: N/A

Section 14. Laboratory Accreditation (Instructions Page 56)

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

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

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

CERTIFICATION:

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

Printed Name: David Esquivel

Title: <u>City Manager</u>

| Signature: | nature: _ | |
|------------|-----------|--|
|------------|-----------|--|

Date: _____

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

Section 1. Justification for Permit (Instructions Page 57)

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.

A<u>ttachment TR-7</u>

B. Regionalization of facilities

For additional guidance, please review <u>TCEQ's Regionalization Policy for Wastewater</u> <u>Treatment</u>¹.

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?

 \Box Yes \Box No \boxtimes Not Applicable

If yes, within the city limits of: N/A

If yes, attach correspondence from the city.

Attachment: N/A

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: <u>N/A</u>

2. Utility CCN areas

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

🗆 Yes 🖾 No

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

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: N/A

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 and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems.

Attachment: <u>Attachment TR-8</u>

If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system.

Attachment: <u>Attachment TR-8</u>

If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion.

Attachment: <u>N/A</u>

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

🛛 Yes 🗆 No

If no, proceed to Item B, Proposed Organic Loading.

If yes, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application): <u>3 MGD (Interim II), 4.5 MGD (Final)</u>

Average Influent Organic Strength or BOD₅ Concentration in mg/l: <u>270</u>

Average Influent Loading (lbs/day = total average flow X average BOD₅ conc. X 8.34): <u>6,755.4 lbs/d (Interim II), 10,133.1 lbs/d (Final)</u>

Provide the source of the average organic strength or BOD₅ concentration.

DMRs

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 | Interim II: 3 MGD Final: 4.5 MGD | 270 |
| 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 | | |
| Restaurant | | |
| Hospital | | |
| Nursing home | | |
| Other | | |
| TOTAL FLOW from all sources | Interim II: 3 MGD Final: 4.5 MGD | |
| AVERAGE BOD ₅ from all sources | | 270 |

Table 1.1(1) – Design Organic Loading

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

A. Existing/Interim I Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: <u>15</u>

Ammonia Nitrogen, mg/l: <u>3</u>

Total Phosphorus, mg/l: <u>N/A</u>

Dissolved Oxygen, mg/l: 4.0

Other: E. coli 63 MPN/100 mL

B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: <u>10</u> Total Suspended Solids, mg/l: <u>15</u> Ammonia Nitrogen, mg/l: <u>3</u> Total Phosphorus, mg/l: <u>N/A</u> Dissolved Oxygen, mg/l: <u>4.0</u> Other: <u>E. coli 63 MPN/100 mL</u>

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: <u>3</u>

Total Phosphorus, mg/l: <u>N/A</u>

Dissolved Oxygen, mg/l: <u>4.0</u>

Other: E. coli 63 MPN/100 mL

D. Disinfection Method

Identify the proposed method of disinfection.

□ Chlorine: <u>Click to enter text.</u> mg/l after <u>Click to enter text.</u> minutes detention time at peak flow

Dechlorination process: <u>Click to enter text.</u>

- Ultraviolet Light: <u>20</u> seconds contact time at peak flow
- □ Other: <u>Click to enter text</u>.

Section 4. Design Calculations (Instructions Page 59)

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

Attachment: <u>TR-9</u>

Section 5. Facility Site (Instructions Page 60)

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.

N<u>/A</u>

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

FEMA FIRM Panel 48201C0230L

For a new or expansion of a facility, will a wetland or part of a wetland be filled?

🗆 Yes 🗵 No

If yes, has the applicant applied for a US Corps of Engineers 404 Dredge and Fill Permit?

🗆 Yes 🗆 No

If yes, provide the permit number: Click to enter text.

If no, provide the approximate date you anticipate submitting your application to the Corps: <u>Click to enter text.</u>

B. Wind rose

Attach a wind rose: TR-10

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

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): N/A

B. Sludge processing authorization

Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:

- □ Sludge Composting
- □ Marketing and Distribution of sludge
- □ Sludge Surface Disposal or Sludge Monofill

If any of the above, sludge options are selected, attach the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056**): <u>N/A</u>

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

Attach a solids management plan to the application.

Attachment: <u>TR-6</u>

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

• Treatment units and processes dimensions and capacities

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

🗆 Yes 🖾 No

If **no**, proceed it Section 2. **If yes**, provide the following:

Owner of the drinking water supply: <u>Click to enter text</u>.

Distance and direction to the intake: <u>Click to enter text.</u>

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

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

🗆 Yes 🖾 No

If **no**, proceed to Section 3. **If yes**, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: <u>N/A</u>

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

🗆 Yes 🗆 No

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

N/A

C. Sea grasses

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

🗆 Yes 🗆 No

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

N/A

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

🗆 Yes 🗵 No

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: <u>Harris County Flood Control District Ditch M121-00-00;</u> <u>thence Willow Creek; thence Spring Creek (Segment No. 1008)</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: Click to enter text.

Average depth of the entire water body, in feet: <u>Click to enter text.</u>

Average depth of water body within a 500-foot radius of discharge point, in feet: <u>Click to enter text.</u>

- Man-made Channel or Ditch
- □ Open Bay
- □ Tidal Stream, Bayou, or Marsh
- □ Other, specify: <u>Click to enter text.</u>

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



Check the method used to characterize the area upstream (or downstream for new dischargers).



- □ Historical observation by adjacent landowners
- □ Personal observation

□ Other, specify: <u>Click to enter text</u>.

C. Downstream perennial confluences

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

The HCFCD ditch drains into Willow Creek (perennial stream). No other perennial streams join Willow Creek within 3 miles.

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.

The HCFCD ditch (intermittent) drains into Willow Creek (perennial stream) approximately 0.5 miles downstream.

E. Normal dry weather characteristics

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

The banks of the receiving ditch are lined with grasses and shrubs. There is some riprap surrounding the outfall structure and the surrounding area consists of maintained grass and wooded areas. There is low flow, shallow depth, and good water clarity.

Date and time of observation: 11/3/22@10:41 AM

Was the water body influenced by stormwater runoff during observations?

🗆 Yes 🖾 No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

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

 \boxtimes Other(s), specify: Stormwater

B. Waterbody uses

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

- Livestock watering
- □ Irrigation withdrawal
- □ Fishing
- □ Domestic water supply
- □ Contact recreation
- Non-contact recreation
- □ Navigation
- Industrial water supply

C. Waterbody aesthetics

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

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

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

Section 1. General Information (Instructions Page 66)

Date of study: Click to enter text. Time of study: Click to enter text.

Stream name: <u>Click to enter text.</u>

Location: <u>Click to enter text.</u>

Type of stream upstream of existing discharge or downstream of proposed discharge (check one).

□ Perennial □ Intermittent with perennial pools

Section 2. Data Collection (Instructions Page 66)

Number of stream bends that are well defined: Click to enter text.

Number of stream bends that are moderately defined: Click to enter text.

Number of stream bends that are poorly defined: Click to enter text.

Number of riffles: <u>Click to enter text.</u>

Evidence of flow fluctuations (check one):

| | Minor | | moderate | | severe |
|--|-------|--|----------|--|--------|
|--|-------|--|----------|--|--------|

Indicate the observed stream uses and if there is evidence of flow fluctuations or channel obstruction/modification.

Click to enter text.

Stream transects

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

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

 Table 2.1(1) - Stream Transect Records

Section 3. Summarize Measurements (Instructions Page 66)

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

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

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

Number of lateral transects made: <u>Click to enter text.</u>

Average stream width, in feet: <u>Click to enter text.</u>

Average stream depth, in feet: <u>Click to enter text</u>.

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

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

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

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

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

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

Identify the method of land disposal:

Irrigation

Evaporation

| | Surface application | | Subsurface application |
|--|---------------------|--|------------------------|
|--|---------------------|--|------------------------|

- Subsurface soils absorption
- \Box Drip irrigation system \Box
 - Subsurface area drip dispersal system
 Evapotranspiration beds
- □ Other (describe in detail): Click to enter text.

NOTE: All applicants without authorization or proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0.

For existing authorizations, provide Registration Number: Click to enter text.

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

In table 3.0(1), provide the requested information for the land application sites. Include the agricultural or cover crop type (wheat, cotton, alfalfa, bermuda grass, native grasses, etc.), land use (golf course, hayland, pastureland, park, row crop, etc.), irrigation area, amount of effluent applied, and whether or not the public has access to the area. Specify the amount of land area and the amount of effluent that will be allotted to each agricultural or cover crop, if more than one crop will be used.

Table 3.0(1) – Land Application Site Crops

| Crop Type & Land Use | Irrigation Area (acres) | Effluent Application (GPD) | Public Access? Y/N |
|----------------------|----------------------------|----------------------------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 68)

Table 3.0(2) – Storage and Evaporation Ponds

| Pond Number | Surface Area (acres) | Storage Volume (acre-feet) | Dimensions | Liner Type | |
|----------------|-------------------------|-------------------------------|------------|------------|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Attach a copy of a liner certification that was prepared, signed, and sealed by a Texas licensed professional engineer for each pond.

Attachment: Click to enter text.

Section 4. Flood and Runoff Protection (Instructions Page 68)

Is the land application site within the 100-year frequency flood level?

🗆 Yes 🗆 No

If yes, describe how the site will be protected from inundation.

Click to enter text.

Provide the source used to determine the 100-year frequency flood level:

Click to enter text.

Provide a description of tailwater controls and rainfall run-on controls used for the land application site.

Click to enter text.

Section 5. Annual Cropping Plan (Instructions Page 68)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment**: <u>Click to enter text</u>.

- Soils map with crops
- Cool and warm season plant species
- Crop yield goals
- Crop growing season
- Crop nutrient requirements
- Additional fertilizer requirements
- Minimum/maximum harvest height (for grass crops)
- Supplemental watering requirements
- Crop salt tolerances
- Harvesting method/number of harvests
- Justification for not removing existing vegetation to be irrigated

Section 6. Well and Map Information (Instructions Page 69)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment**: <u>Click to enter text</u>.

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)
- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities
- All water wells within 1-mile radius of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells located within a half-mile radius of the disposal site or property boundaries shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

| Table 3.0(3) | – Water | Well Data |
|--------------|---------|-----------|
|--------------|---------|-----------|

| Well ID | Well Use | Producing? Y/N | Open, cased, capped, or plugged? | Proposed Best Management Practice |
|---------|----------|-------------------|-------------------------------------|--------------------------------------|
| | | | Choose an item. | |
| | | | Choose an item. | |
| | | | Choose an item. | |
| | | | Choose an item. | |
| | | | Choose an item. | |

If water quality data or well log information is available please include the information in an attachment listed by Well ID.

Attachment: Click to enter text.

Section 7. Groundwater Quality (Instructions Page 69)

Attach a Groundwater Quality Technical Report which assesses the impact of the wastewater disposal system on groundwater. This report shall include an evaluation of the water wells (including the information in the well table provided in Item 6. above), the wastewater application rate, and pond liners. Indicate by a check mark that this report is provided.

Attachment: Click to enter text.

Are groundwater monitoring wells available onsite? \Box Yes \Box No

Do you plan to install ground water monitoring wells or lysimeters around the land application site?
Yes No

If yes, provide the proposed location of the monitoring wells or lysimeters on a site map.

Attachment: Click to enter text.

Section 8. Soil Map and Soil Analyses (Instructions Page 70)

A. Soil map

Attach a USDA Soil Survey map that shows the area to be used for effluent disposal.

Attachment: Click to enter text.

B. Soil analyses

Attach the laboratory results sheets from the soil analyses. **Note**: for renewal applications, the current annual soil analyses required by the permit are acceptable as long as the test date is less than one year prior to the submission of the application.

Attachment: Click to enter text.

List all USDA designated soil series on the proposed land application site. Attach additional pages as necessary.

| Table | 3.0(4) | - Soil | Data |
|-------|--------|--------|------|
|-------|--------|--------|------|

| Soil Series | Depth from Surface | Permeability | Available Water Capacity | Curve Number |
|-------------|--------------------------|--------------|--------------------------------|-----------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

🗆 Yes 🗆 No

If no, this section is not applicable and the worksheet is complete.

If yes, provide the effluent monitoring data for the parameters regulated in the existing permit. If a parameter is not regulated in the existing permit, enter N/A.

Table 3.0(5) – Effluent Monitoring Data

| Date | 30 Day Avg Flow MGD | BOD5 mg/l | TSS mg/l | рН | Chlorine Residual mg/l | Acres irrigated |
|------|------------------------|--------------|-------------|----|---------------------------|--------------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Provide a discussion of all persistent excursions above the permitted limits and any corrective actions taken.

Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND DISPOSAL OF EFFLUENT

The following is required for new and major amendment permit applications. Renewal and minor amendment permit applications may be asked for this worksheet on a case by case basis.

Section 1. Surface Disposal (Instructions Page 72)

Complete the item that applies for the method of disposal being used.

A. Irrigation

Area under irrigation, in acres: <u>Click to enter text.</u>

Design application frequency:

hours/day Click to enter text. And days/week Click to enter text.

Land grade (slope):

average percent (%): <u>Click to enter text.</u>

maximum percent (%): Click to enter text.

Design application rate in acre-feet/acre/year: Click to enter text.

Design total nitrogen loading rate, in lbs N/acre/year: Click to enter text.

Soil conductivity (mmhos/cm): Click to enter text.

Method of application: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, method of application, irrigation efficiency, and nitrogen balance.

Attachment: Click to enter text.

B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: <u>Click to enter text.</u>

Attach a separate engineering report with the water balance and storage volume calculations.

Attachment: Click to enter text.

C. Evapotranspiration beds

Number of beds: <u>Click to enter text.</u>

Area of bed(s), in acres: <u>Click to enter text.</u>

Depth of bed(s), in feet: <u>Click to enter text.</u>

Void ratio of soil in the beds: <u>Click to enter text.</u>

Storage volume within the beds, in acre-feet: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, and a description of the lining.

Attachment: Click to enter text.

D. Overland flow

Area used for application, in acres: <u>Click to enter text.</u> Slopes for application area, percent (%): <u>Click to enter text.</u> Design application rate, in gpm/foot of slope width: <u>Click to enter text.</u> Slope length, in feet: <u>Click to enter text.</u>

Design BOD₅ loading rate, in lbs BOD₅/acre/day: Click to enter text.

Design application frequency:

hours/day: Click to enter text. And days/week: Click to enter text.

Attach a separate engineering report with the method of application and design requirements according to *30 TAC Chapter 217*.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 73)

Is the facility subject to 30 TAC Chapter 213, Edwards Aquifer Rules?

🗆 Yes 🗆 No

If **yes**, is the facility located on the Edwards Aquifer Recharge Zone?

□ Yes □ No

If yes, attach a geological report addressing potential recharge features.

Attachment: <u>Click to enter text.</u>

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.2: SURFACE LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **does not meet** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System.*

Section 1. Subsurface Application (Instructions Page 74)

Identify the type of system:

- Conventional Gravity Drainfield, Beds, or Trenches (new systems must be less than 5,000 GPD)
- □ Low Pressure Dosing
- □ Other, specify: <u>Click to enter text.</u>

Application area, in acres: <u>Click to enter text.</u>

Area of drainfield, in square feet: <u>Click to enter text.</u>

Application rate, in gal/square foot/day: <u>Click to enter text.</u>

Depth to groundwater, in feet: <u>Click to enter text.</u>

Area of trench, in square feet: <u>Click to enter text.</u>

Dosing duration per area, in hours: <u>Click to enter text.</u>

Number of beds: Click to enter text.

Dosing amount per area, in inches/day: <u>Click to enter text.</u>

Infiltration rate, in inches/hour: Click to enter text.

Storage volume, in gallons: <u>Click to enter text.</u>

Area of bed(s), in square feet: <u>Click to enter text.</u>

Soil Classification: Click to enter text.

Attach a separate engineering report with the information required in *30 TAC § 309.20*, excluding the requirements of § 309.20 b(3)(A) and (B) design analysis which may be asked for on a case by case basis. Include a description of the schedule of dosing basin rotation.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 74)

Is the subsurface system over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

🗆 Yes 🗆 No

Is the subsurface system over the Edwards Aquifer Transition Zone as mapped by TCEQ?

🗆 Yes 🗆 No

If yes to either question, the subsurface system may be prohibited by *30 TAC §213.8*. Please call the Municipal Permits Team, at 512-239-4671, to schedule a pre-application meeting.
DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL (SADDS) LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** subsurface area drip dispersal system permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **meets** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System.*

Section 1. Administrative Information (Instructions Page 75)

- **A.** Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility:
- **B.** <u>Click to enter text</u>. Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?

🗆 Yes 🗆 No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the treatment facility is located.

<u>Click to enter text.</u>

- C. Owner of the subsurface area drip dispersal system: Click to enter text.
- **D.** Is the owner of the subsurface area drip dispersal system the same as the owner of the wastewater treatment facility or the site where the wastewater treatment facility is located?

□ Yes □ No

If **no**, identify the names of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.C.

<u>Click to enter text.</u>

- E. Owner of the land where the subsurface area drip dispersal system is located: <u>Click to</u> <u>enter text.</u>
- **F.** Is the owner of the land where the subsurface area drip dispersal system is located the same as owner of the wastewater treatment facility, the site where the wastewater treatment facility is located, or the owner of the subsurface area drip dispersal system?

🗆 Yes 🗆 No

If **no**, identify the name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.E.

Click to enter text.

Section 2. Subsurface Area Drip Dispersal System (Instructions Page 75)

A. Type of system

- □ Subsurface Drip Irrigation
- □ Surface Drip Irrigation
- □ Other, specify: <u>Click to enter text</u>.

B. Irrigation operations

Application area, in acres: <u>Click to enter text.</u>

Infiltration Rate, in inches/hour: Click to enter text.

Average slope of the application area, percent (%): Click to enter text.

Maximum slope of the application area, percent (%): Click to enter text.

Storage volume, in gallons: <u>Click to enter text.</u>

Major soil series: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

C. Application rate

Is the facility located **west** of the boundary shown in *30 TAC § 222.83* **and** also using a vegetative cover of non-native grasses over seeded with cool season grasses during the winter months (October-March)?

🗆 Yes 🗆 No

If yes, then the facility may propose a hydraulic application rate not to exceed 0.1 gal/square foot/day.

Is the facility located **east** of the boundary shown in *30 TAC § 222.83* **or** in any part of the state when the vegetative cover is any crop other than non-native grasses?

□ Yes □ No

If **yes**, the facility must use the formula in *30 TAC §222.83* to calculate the maximum hydraulic application rate.

Do you plan to submit an alternative method to calculate the hydraulic application rate for approval by the executive director?

🗆 Yes 🗆 No

Hydraulic application rate, in gal/square foot/day: <u>Click to enter text.</u> Nitrogen application rate, in lbs/gal/day: <u>Click to enter text.</u>

D. Dosing information

Number of doses per day: <u>Click to enter text.</u>

Dosing duration per area, in hours: <u>Click to enter text.</u>

Rest period between doses, in hours: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Number of zones: Click to enter text.

Does the proposed subsurface drip irrigation system use tree vegetative cover as a crop?

🗆 Yes 🗆 No

If **yes**, provide a vegetation survey by a certified arborist. Please call the Water Quality Assessment Team at (512) 239-4671 to schedule a pre-application meeting.

Attachment: Click to enter text.

Section 3. Required Plans (Instructions Page 75)

A. Recharge feature plan

Attach a Recharge Feature Plan with all information required in *30 TAC §222.79*.

Attachment: <u>Click to enter text.</u>

B. Soil evaluation

Attach a Soil Evaluation with all information required in *30 TAC §222.73*.

Attachment: Click to enter text.

C. Site preparation plan

Attach a Site Preparation Plan with all information required in 30 TAC §222.75.

Attachment: Click to enter text.

D. Soil sampling/testing

Attach soil sampling and testing that includes all information required in *30 TAC §222.157*.

Attachment: Click to enter text.

Section 4. Floodway Designation (Instructions Page 76)

A. Site location

Is the existing/proposed land application site within a designated floodway?

□ Yes □ No

B. Flood map

Attach either the FEMA flood map or alternate information used to determine the floodway.

Attachment: Click to enter text.

Section 5. Surface Waters in the State (Instructions Page 76)

A. Buffer Map

Attach a map showing appropriate buffers on surface waters in the state, water wells, and springs/seeps.

Attachment: Click to enter text.

B. Buffer variance request

Do you plan to request a buffer variance from water wells or waters in the state?

□ Yes □ No

If yes, then attach the additional information required in 30 TAC § 222.81(c).

Attachment: <u>Click to enter text</u>.

Section 6. Edwards Aquifer (Instructions Page 76)

A. Is the SADDS located over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

🗆 Yes 🗆 No

B. Is the SADDS located over the Edwards Aquifer Transition Zone as mapped by TCEQ?

🗆 Yes 🗆 No

If yes to either question, then the SADDS may be prohibited by *30 TAC §213.8*. Please call the Municipal Permits Team at 512-239-4671 to schedule a pre-application meeting.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

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

This worksheet is not required minor amendments without renewal.

Section 1. Toxic Pollutants (Instructions Page 78)

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

Grab \boxtimes Composite \boxtimes

Date and time sample(s) collected: <u>11/7/24 9:00 & 11/13/24 @ 8:00</u>

| Pollutant | AVG Effluent Conc. (μg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|----------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Acrylonitrile | <50 | <50 | 1 | 50 |
| Aldrin | < 0.01 | < 0.01 | 1 | 0.01 |
| Aluminum | 11.8 | 11.8 | 1 | 2.5 |
| Anthracene | <10 | <10 | 1 | 10 |
| Antimony | <5 | <5 | 1 | 5 |
| Arsenic | 0.818 | 0.818 | 1 | 0.5 |
| Barium | 131 | 131 | 1 | 3 |
| Benzene | <10 | <10 | 1 | 10 |
| Benzidine | <50 | <50 | 1 | 50 |
| Benzo(a)anthracene | <5 | <5 | 1 | 5 |
| Benzo(a)pyrene | <5 | <5 | 1 | 5 |
| Bis(2-chloroethyl)ether | <10 | <10 | 1 | 10 |
| Bis(2-ethylhexyl)phthalate | <10 | <10 | 1 | 10 |
| Bromodichloromethane | <10 | <10 | 1 | 10 |
| Bromoform | <10 | <10 | 1 | 10 |
| Cadmium | <1 | <1 | 1 | 1 |
| Carbon Tetrachloride | <2 | <2 | 1 | 2 |
| Carbaryl | <5 | <5 | 1 | 5 |
| Chlordane* | <0.02 | <0.02 | 1 | 0.2 |
| Chlorobenzene | <10 | <10 | 1 | 10 |
| Chlorodibromomethane | <10 | <10 | 1 | 10 |

Table 4.0(1) – Toxics Analysis

| Pollutant | AVG Effluent | MAX Effluent | Number of Samples | MAL (µg/l) |
|------------------------|-----------------|-----------------|----------------------|---------------|
| | Conc. (µg/l) | Conc. (µg/l) | | |
| Chloroform | <10 | <10 | 1 | 10 |
| Chlorpyrifos | < 0.05 | < 0.05 | 1 | 0.05 |
| Chromium (Total) | <3 | <3 | 1 | 3 |
| Chromium (Tri) (*1) | <3 | <3 | 1 | N/A |
| Chromium (Hex) | <3 | <3 | 1 | 3 |
| Copper | 4.9 | 4.9 | 1 | 2 |
| Chrysene | <5 | <5 | 1 | 5 |
| p-Chloro-m-Cresol | <10 | <10 | 1 | 10 |
| 4,6-Dinitro-o-Cresol | <50 | <50 | 1 | 50 |
| p-Cresol | <10 | <10 | 1 | 10 |
| Cyanide (*2) | <10 | <10 | 1 | 10 |
| 4,4'- DDD | <0.1 | <0.1 | 1 | 0.1 |
| 4,4'- DDE | <0.1 | <0.1 | 1 | 0.1 |
| 4,4'- DDT | < 0.02 | <0.02 | 1 | 0.02 |
| 2,4-D | <0.7 | <0.7 | 1 | 0.7 |
| Demeton (O and S) | <0.2 | <0.2 | 1 | 0.20 |
| Diazinon | <0.1 | <0.1 | 1 | 0.5/0.1 |
| 1,2-Dibromoethane | <10 | <10 | 1 | 10 |
| m-Dichlorobenzene | <10 | <10 | 1 | 10 |
| o-Dichlorobenzene | <10 | <10 | 1 | 10 |
| p-Dichlorobenzene | <10 | <10 | 1 | 10 |
| 3,3'-Dichlorobenzidine | <5 | <5 | 1 | 5 |
| 1,2-Dichloroethane | <10 | <10 | 1 | 10 |
| 1,1-Dichloroethylene | <10 | <10 | 1 | 10 |
| Dichloromethane | <20 | <20 | 1 | 20 |
| 1,2-Dichloropropane | <10 | <10 | 1 | 10 |
| 1,3-Dichloropropene | <10 | <10 | 1 | 10 |
| Dicofol | <1 | <1 | 1 | 1 |
| Dieldrin | < 0.02 | < 0.02 | 1 | 0.02 |
| 2,4-Dimethylphenol | <10 | <10 | 1 | 10 |
| Di-n-Butyl Phthalate | <10 | <10 | 1 | 10 |
| Diuron | < 0.09 | < 0.09 | 1 | 0.09 |
| Endosulfan I (alpha) | < 0.01 | <0.01 | 1 | 0.01 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|-------------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Endosulfan II (beta) | <0.02 | <0.02 | 1 | 0.02 |
| Endosulfan Sulfate | <0.1 | <0.1 | 1 | 0.1 |
| Endrin | < 0.02 | <0.02 | 1 | 0.02 |
| Ethylbenzene | <10 | <10 | 1 | 10 |
| Fluoride | 532 | 532 | 1 | 500 |
| Guthion | <0.1 | <0.1 | 1 | 0.1 |
| Heptachlor | < 0.01 | < 0.01 | 1 | 0.01 |
| Heptachlor Epoxide | < 0.01 | < 0.01 | 1 | 0.01 |
| Hexachlorobenzene | <5.0 | <5.0 | 1 | 5 |
| Hexachlorobutadiene | <10 | <10 | 1 | 10 |
| Hexachlorocyclohexane (alpha) | < 0.05 | < 0.05 | 1 | 0.05 |
| Hexachlorocyclohexane (beta) | < 0.05 | < 0.05 | 1 | 0.05 |
| gamma-Hexachlorocyclohexane | < 0.05 | < 0.05 | 1 | 0.05 |
| (Lindane) | | | | |
| Hexachlorocyclopentadiene | <10 | <10 | 1 | 10 |
| Hexachloroethane | <20 | <20 | 1 | 20 |
| Hexachlorophene | <10 | <10 | 1 | 10 |
| Lead | <0.5 | <0.5 | 1 | 0.5 |
| Malathion | <0.1 | <0.1 | 1 | 0.1 |
| Mercury | < 0.005 | < 0.005 | 1 | 0.005 |
| Methoxychlor | <2 | <2 | 1 | 2 |
| Methyl Ethyl Ketone | <50 | <50 | 1 | 50 |
| Mirex | < 0.02 | < 0.02 | 1 | 0.02 |
| Nickel | <2 | <2 | 1 | 2 |
| Nitrate-Nitrogen | 11300 | 11300 | 1 | 100 |
| Nitrobenzene | <10 | <10 | 1 | 10 |
| N-Nitrosodiethylamine | <20 | <20 | 1 | 20 |
| N-Nitroso-di-n-Butylamine | <20 | <20 | 1 | 20 |
| Nonylphenol | <333 | <333 | 1 | 333 |
| Parathion (ethyl) | <0.1 | <0.1 | 1 | 0.1 |
| Pentachlorobenzene | <20 | <20 | 1 | 20 |
| Pentachlorophenol | <5 | <5 | 1 | 5 |
| Phenanthrene | <10 | <10 | 1 | 10 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|------------------------------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Polychlorinated Biphenyls (PCB's) (*3) | <0.2 | <0.2 | 1 | 0.2 |
| Pyridine | <20 | <20 | 1 | 20 |
| Selenium | <5.0 | <5.0 | 1 | 5 |
| Silver | <0.5 | <0.5 | 1 | 0.5 |
| 1,2,4,5-Tetrachlorobenzene | <20 | <20 | 1 | 20 |
| 1,1,2,2-Tetrachloroethane | <10 | <10 | 1 | 10 |
| Tetrachloroethylene | <10 | <10 | 1 | 10 |
| Thallium | <0.5 | <0.5 | 1 | 0.5 |
| Toluene | <10 | <10 | 1 | 10 |
| Toxaphene | <0.3 | <0.3 | 1 | 0.3 |
| 2,4,5-TP (Silvex) | <0.3 | <0.3 | 1 | 0.3 |
| Tributyltin (see instructions for explanation) | N/A | N/A | N/A | 0.01 |
| 1,1,1-Trichloroethane | <10 | <10 | 1 | 10 |
| 1,1,2-Trichloroethane | <10 | <10 | 1 | 10 |
| Trichloroethylene | <10 | <10 | 1 | 10 |
| 2,4,5-Trichlorophenol | <50 | <50 | 1 | 50 |
| TTHM (Total Trihalomethanes) | 18.2 | 18.2 | 1 | 10 |
| Vinyl Chloride | <10.0 | <10.0 | 1 | 10 |
| Zinc | 18.7 | 18.7 | 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: <u>11/7/24 9:00 & 11/13/24 @ 8:00</u>

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

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Antimony | <5 | <5 | 1 | 5 |
| Arsenic | 0.818 | 0.818 | 1 | 0.5 |
| Beryllium | <0.5 | <0.5 | 1 | 0.5 |
| Cadmium | <1 | <1 | 1 | 1 |
| Chromium (Total) | <3 | <3 | 1 | 3 |
| Chromium (Hex) | <3 | <3 | 1 | 3 |
| Chromium (Tri) (*1) | <3 | <3 | 1 | N/A |
| Copper | 4.9 | 4.9 | 1 | 2 |
| Lead | <0.5 | <0.5 | 1 | 0.5 |
| Mercury | < 0.005 | < 0.005 | 1 | 0.005 |
| Nickel | <2 | <2 | 1 | 2 |
| Selenium | <5 | <5 | 1 | 5 |
| Silver | <0.5 | <0.5 | 1 | 0.5 |
| Thallium | <0.5 | <0.5 | 1 | 0.5 |
| Zinc | 18.7 | 18.7 | 1 | 5 |
| Cyanide (*2) | <10 | <10 | 1 | 10 |
| Phenols, Total | <10 | <10 | 1 | 10 |

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

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

Table 4.0(2)B – Volatile Compounds

| Pollutant | AVG Effluent Conc. (μg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|------------------------------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Acrolein | <50 | <50 | 1 | 50 |
| Acrylonitrile | <50 | <50 | 1 | 50 |
| Benzene | <10 | <10 | 1 | 10 |
| Bromoform | <10 | <10 | 1 | 10 |
| Carbon Tetrachloride | <2 | <2 | 1 | 2 |
| Chlorobenzene | <10 | <10 | 1 | 10 |
| Chlorodibromomethane | <10 | <10 | 1 | 10 |
| Chloroethane | <50 | <50 | 1 | 50 |
| 2-Chloroethylvinyl Ether | <10 | <10 | 1 | 10 |
| Chloroform | <10 | <10 | 1 | 10 |
| Dichlorobromomethane [Bromodichloromethane] | <10 | <10 | 1 | 10 |
| 1,1-Dichloroethane | <10 | <10 | 1 | 10 |
| 1,2-Dichloroethane | <10 | <10 | 1 | 10 |
| 1,1-Dichloroethylene | <10 | <10 | 1 | 10 |
| 1,2-Dichloropropane | <10 | <10 | 1 | 10 |
| 1,3-Dichloropropylene | <10 | <10 | 1 | 10 |
| [1,3-Dichloropropene] | | | | |
| 1,2-Trans-Dichloroethylene | <10 | <10 | 1 | 10 |
| Ethylbenzene | <10 | <10 | 1 | 10 |
| Methyl Bromide | <10 | <10 | 1 | 50 |
| Methyl Chloride | <10 | <10 | 1 | 50 |
| Methylene Chloride | <10 | <10 | 1 | 20 |
| 1,1,2,2-Tetrachloroethane | <10 | <10 | 1 | 10 |
| Tetrachloroethylene | <10 | <10 | 1 | 10 |
| Toluene | <10 | <10 | 1 | 10 |
| 1,1,1-Trichloroethane | <10 | <10 | 1 | 10 |
| 1,1,2-Trichloroethane | <10 | <10 | 1 | 10 |
| Trichloroethylene | <10 | <10 | 1 | 10 |
| Vinyl Chloride | <10 | <10 | 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 | <10 | <10 | 1 | 10 |
| 2,4-Dichlorophenol | <10 | <10 | 1 | 10 |
| 2,4-Dimethylphenol | <10 | <10 | 1 | 10 |
| 4,6-Dinitro-o-Cresol | <10 | <10 | 1 | 50 |
| 2,4-Dinitrophenol | <50 | <50 | 1 | 50 |
| 2-Nitrophenol | <50 | <50 | 1 | 20 |
| 4-Nitrophenol | <20 | <20 | 1 | 50 |
| P-Chloro-m-Cresol | <10 | <10 | 1 | 10 |
| Pentalchlorophenol | <5 | <5 | 1 | 5 |
| Phenol | <10 | <10 | 1 | 10 |
| 2,4,6-Trichlorophenol | <10 | <10 | 1 | 10 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|--------------------------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Acenaphthene | <10 | <10 | 1 | 10 |
| Acenaphthylene | <10 | <10 | 1 | 10 |
| Anthracene | <10 | <10 | 1 | 10 |
| Benzidine | <50 | <50 | 1 | 50 |
| Benzo(a)Anthracene | <5 | <5 | 1 | 5 |
| Benzo(a)Pyrene | <5 | <5 | 1 | 5 |
| 3,4-Benzofluoranthene | <10 | <10 | 1 | 10 |
| Benzo(ghi)Perylene | <20 | <20 | 1 | 20 |
| Benzo(k)Fluoranthene | <5 | <5 | 1 | 5 |
| Bis(2-Chloroethoxy)Methane | <10 | <10 | 1 | 10 |
| Bis(2-Chloroethyl)Ether | <10 | <10 | 1 | 10 |
| Bis(2-Chloroisopropyl)Ether | <10 | <10 | 1 | 10 |
| Bis(2-Ethylhexyl)Phthalate | <10 | <10 | 1 | 10 |
| 4-Bromophenyl Phenyl Ether | <10 | <10 | 1 | 10 |
| Butyl benzyl Phthalate | <10 | <10 | 1 | 10 |
| 2-Chloronaphthalene | <10 | <10 | 1 | 10 |
| 4-Chlorophenyl phenyl ether | <10 | <10 | 1 | 10 |
| Chrysene | <5 | <5 | 1 | 5 |
| Dibenzo(a,h)Anthracene | <5 | <5 | 1 | 5 |
| 1,2-(o)Dichlorobenzene | <10 | <10 | 1 | 10 |
| 1,3-(m)Dichlorobenzene | <10 | <10 | 1 | 10 |
| 1,4-(p)Dichlorobenzene | <10 | <10 | 1 | 10 |
| 3,3-Dichlorobenzidine | <5 | <5 | 1 | 5 |
| Diethyl Phthalate | <10 | <10 | 1 | 10 |
| Dimethyl Phthalate | <10 | <10 | 1 | 10 |
| Di-n-Butyl Phthalate | <10 | <10 | 1 | 10 |
| 2,4-Dinitrotoluene | <10 | <10 | 1 | 10 |
| 2,6-Dinitrotoluene | <10 | <10 | 1 | 10 |
| Di-n-Octyl Phthalate | <10 | <10 | 1 | 10 |
| 1,2-Diphenylhydrazine (as Azo- benzene) | <20 | <20 | 1 | 20 |
| Fluoranthene | <10 | <10 | 1 | 10 |

Table 4.0(2)D – Base/Neutral Compounds

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|----------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Fluorene | <10 | <10 | 1 | 10 |
| Hexachlorobenzene | <5 | <5 | 1 | 5 |
| Hexachlorobutadiene | <10 | <10 | 1 | 10 |
| Hexachlorocyclo-pentadiene | <10 | <10 | 1 | 10 |
| Hexachloroethane | <20 | <20 | 1 | 20 |
| Indeno(1,2,3-cd)pyrene | <5 | <5 | 1 | 5 |
| Isophorone | <10 | <10 | 1 | 10 |
| Naphthalene | <10 | <10 | 1 | 10 |
| Nitrobenzene | <10 | <10 | 1 | 10 |
| N-Nitrosodimethylamine | <50 | <50 | 1 | 50 |
| N-Nitrosodi-n-Propylamine | <20 | <20 | 1 | 20 |
| N-Nitrosodiphenylamine | <20 | <20 | 1 | 20 |
| Phenanthrene | <10 | <10 | 1 | 10 |
| Pyrene | <10 | <10 | 1 | 10 |
| 1,2,4-Trichlorobenzene | <10 | <10 | 1 | 10 |

Table 4.0(2)E - Pesticides

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|--------------------------------------|---------------------------------|---------------------------------|----------------------|---------------|
| Aldrin | < 0.01 | < 0.01 | 1 | 0.01 |
| alpha-BHC (Hexachlorocyclohexane) | < 0.05 | < 0.05 | 1 | 0.05 |
| beta-BHC (Hexachlorocyclohexane) | < 0.05 | < 0.05 | 1 | 0.05 |
| gamma-BHC (Hexachlorocyclohexane) | < 0.05 | <0.05 | 1 | 0.05 |
| delta-BHC (Hexachlorocyclohexane) | < 0.05 | < 0.05 | 1 | 0.05 |
| Chlordane | <0.2 | <0.2 | 1 | 0.2 |
| 4,4-DDT | <0.02 | <0.02 | 1 | 0.02 |
| 4,4-DDE | <0.1 | <0.1 | 1 | 0.1 |
| 4,4,-DDD | <0.1 | <0.1 | 1 | 0.1 |
| Dieldrin | <0.02 | < 0.02 | 1 | 0.02 |
| Endosulfan I (alpha) | < 0.01 | < 0.01 | 1 | 0.01 |
| Endosulfan II (beta) | <0.02 | < 0.02 | 1 | 0.02 |
| Endosulfan Sulfate | <0.1 | <0.1 | 1 | 0.1 |
| Endrin | <0.02 | <0.02 | 1 | 0.02 |
| Endrin Aldehyde | <0.1 | <0.1 | 1 | 0.1 |
| Heptachlor | < 0.01 | < 0.01 | 1 | 0.01 |
| Heptachlor Epoxide | < 0.01 | < 0.01 | 1 | 0.01 |
| PCB-1242 | <0.2 | <0.2 | 1 | 0.2 |
| PCB-1254 | <0.2 | <0.2 | 1 | 0.2 |
| PCB-1221 | <0.2 | <0.2 | 1 | 0.2 |
| PCB-1232 | <0.2 | <0.2 | 1 | 0.2 |
| PCB-1248 | <0.2 | <0.2 | 1 | 0.2 |
| PCB-1260 | <0.2 | <0.2 | 1 | 0.2 |
| PCB-1016 | <0.2 | <0.2 | 1 | 0.2 |
| Toxaphene | <0.3 | <0.3 | 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>

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>

C. If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab \Box Composite \Box

Date and time sample(s) collected: <u>N/A</u>

Table 4.0(2)F – Dioxin/Furan Compounds

| Compound | Toxic Equivalenc y Factors | Wastewater Concentration (ppq) | Wastewater Equivalents (ppq) | Sludge Concentration (ppt) | Sludge Equivalents (ppt) | MAL (ppq) |
|------------------------|----------------------------------|--------------------------------------|------------------------------------|----------------------------------|--------------------------------|--------------|
| 2,3,7,8 TCDD | 1 | | | | | 10 |
| 1,2,3,7,8 PeCDD | 0.5 | | | | | 50 |
| 2,3,7,8 HxCDDs | 0.1 | | | | | 50 |
| 1,2,3,4,6,7,8 HpCDD | 0.01 | | | | | 50 |
| 2,3,7,8 TCDF | 0.1 | | | | | 10 |
| 1,2,3,7,8 PeCDF | 0.05 | | | | | 50 |
| 2,3,4,7,8 PeCDF | 0.5 | | | | | 50 |
| 2,3,7,8 HxCDFs | 0.1 | | | | | 50 |
| 2,3,4,7,8 HpCDFs | 0.01 | | | | | 50 |
| OCDD | 0.0003 | | | | | 100 |
| OCDF | 0.0003 | | | | | 100 |
| PCB 77 | 0.0001 | | | | | 0.5 |
| PCB 81 | 0.0003 | | | | | 0.5 |
| PCB 126 | 0.1 | | | | | 0.5 |
| PCB 169 | 0.03 | | | | | 0.5 |
| Total | | | | | | |

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: TOXICITY TESTING REQUIREMENTS

The following **is required** for facilities with a current operating design flow of**1.0 MGD or greater**, with an EPA-approved **pretreatment** program (or those required to have one under 40 CFR Part 403), or are required to perform Whole Effluent Toxicity testing. See instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Required Tests (Instructions Page 88)

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

7-day Chronic: <u>24</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.

Click to enter text.

Section 3. Summary of WET Tests

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

| Table 5.0 | (1) | Summary | y of | WET | Tests |
|-----------|-----|---------|------|-----|-------|
|-----------|-----|---------|------|-----|-------|

| Test Date | Test Species | NOEC Survival | NOEC Sub-lethal |
|-----------|--------------------|---------------|-----------------|
| | | | |
| | | | |
| | Submitted via DMRs | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: <u>o (zero)</u>

Average Daily Flows, in MGD: o (zero)

Significant IUs – non-categorical:

Number of IUs: o (zero)

Average Daily Flows, in MGD: o (zero)

Other IUs:

Number of IUs: o (zero)

Average Daily Flows, in MGD: o (zero)

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.

N/A

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.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)

A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

🗆 Yes 🗆 No

If yes, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

<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.

N/A

C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

Table 6.0(1) – Parameters Above the MAL

| Pollutant | Concentration | MAL | Units | Date |
|------------|---------------|-----|-------|------|
| | | | | |
| | | | | |
| <u>N/A</u> | | | | |
| | | | | |
| | | | | |
| | | | | |

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.

N/A

Section 3. Significant Industrial User (SIU) Information and **Categorical Industrial User (CIU) (Instructions Page 90)**

A. General information

Company Name: N/A SIC Code: N/A Contact name: N/A Address: N/A City, State, and Zip Code: N/A Telephone number: N/A Email address: N/A

B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

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

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the *i*nstructions?

□ Yes □ No

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

🗆 Yes 🗆 No

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: Subcategories: Click to enter text.

Click or tap here to enter text. Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: <u>Click to enter text.</u>

Subcategories: Click to enter text.

Category: <u>Click to enter text.</u>

Subcategories: <u>Click to enter text.</u>

Category: <u>Click to enter text.</u>

Subcategories: Click to enter text.

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

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ IUC Permits Team Radioactive Materials Division MC-233 PO Box 13087 Austin, Texas 78711-3087 512-239-6466 For TCEQ Use Only Reg. No.____ Date Received_____ Date Authorized_____

Section 1. General Information (Instructions Page 92)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): <u>Click to enter text.</u>

Program ID: <u>Click to enter text.</u>

Contact Name: Click to enter text.

Phone Number: <u>Click to enter text.</u>

2. Agent/Consultant Contact Information

Contact Name: <u>Click to enter text.</u>

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone Number: <u>Click to enter text.</u>

3. Owner/Operator Contact Information

Owner
 Operator
 Owner/Operator Name: Click to enter text.
 Contact Name: Click to enter text.
 Address: Click to enter text.
 City, State, and Zip Code: Click to enter text.
 Phone Number: Click to enter text.

4. Facility Contact Information

Facility Name: <u>Click to enter text.</u>
Address: <u>Click to enter text.</u>
City, State, and Zip Code: <u>Click to enter text.</u>
Location description (if no address is available): <u>Click to enter text.</u>
Facility Contact Person: <u>Click to enter text.</u>
Phone Number: <u>Click to enter text.</u>

5. Latitude and Longitude, in degrees-minutes-seconds

Latitude: <u>Click to enter text.</u> Longitude: <u>Click to enter text.</u> Method of determination (GPS, TOPO, etc.): <u>Click to enter text.</u> Attach topographic quadrangle map as attachment A.

6. Well Information

Type of Well Construction, select one:

- Vertical Injection
- □ Subsurface Fluid Distribution System
- □ Infiltration Gallery
- □ Temporary Injection Points
- □ Other, Specify: <u>Click to enter text</u>.

Number of Injection Wells: <u>Click to enter text.</u>

7. Purpose

Detailed Description regarding purpose of Injection System:

Click to enter text.

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. Water Well Driller/Installer

Water Well Driller/Installer Name: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone Number: <u>Click to enter text.</u>

License Number: Click to enter text.

Section 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Table 7.0(1) – Down Hole Design Table

| Name of String | Size | Setting Depth | Sacks Cement/Grout – Slurry Volume – Top of Cement | Hole Size | Weight (lbs/ft) PVC/Steel |
|-------------------|------|------------------|----------------------------------------------------------|--------------|---------------------------------|
| Casing | | | | | |
| Tubing | | | | | |
| Screen | | | | | |

Section 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: <u>Click to enter text.</u>

System(s) Construction: Click to enter text.

Section 4. Site Hydrogeological and Injection Zone Data

- 1. Name of Contaminated Aquifer: <u>Click to enter text.</u>
- 2. Receiving Formation Name of Injection Zone: <u>Click to enter text.</u>
- **3.** Well/Trench Total Depth: <u>Click to enter text.</u>
- 4. Surface Elevation: <u>Click to enter text.</u>
- 5. Depth to Ground Water: <u>Click to enter text.</u>
- 6. Injection Zone Depth: <u>Click to enter text.</u>
- **7.** Injection Zone vertically isolated geologically? □ Yes □ No

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: <u>Click to enter text.</u>

Thickness: Click to enter text.

- 8. Provide a list of contaminants and the levels (ppm) in contaminated aquifer Attach as Attachment E.
- **9.** Horizontal and Vertical extent of contamination and injection plume Attach as Attachment F.
- **10.** Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc. Attach as Attachment G.
- **11.** Injection Fluid Chemistry in PPM at point of injection Attach as Attachment H.
- 12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: <u>Click to enter text.</u>
- 13. Maximum injection Rate/Volume/Pressure: <u>Click to enter text.</u>
- 14. Water wells within 1/4 mile radius (attach map as Attachment I): Click to enter text.
- **15.** Injection wells within 1/4 mile radius (attach map as Attachment J): <u>Click to enter</u> <u>text.</u>
- **16.** Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): <u>Click to enter text.</u>
- 17. Sampling frequency: <u>Click to enter text.</u>
- 18. Known hazardous components in injection fluid: Click to enter text.

Section 5. Site History

- 1. Type of Facility: Click to enter text.
- 2. Contamination Dates: Click to enter text.
- 3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations (attach as Attachment L): Click to enter text.
- 4. Previous Remediation (attach results of any previous remediation as attachment M): Click to enter text.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEO before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Class V Injection Well Designations

- 5A07 Heat Pump/AC return (IW used for groundwater to heat and/or cool buildings)
- 5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
- 5D02 Storm Water Drainage (IW designed for the disposal of rain water)
- 5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- 5F01 Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aguifer Recharge (IW used to inject fluids to recharge an aguifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by ground water withdrawal)
- 5W09 Untreated Sewage
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTTP disposal
- 5W20 Industrial Process Waste Disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- 5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, and/or fill sections of a mine)
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aguifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW) 5X27 Other Wells
- 5X28 Motor Vehicle Waste Disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)

WASTEWATER TREATMENT PLANT PROCESS CALCULATIONS

| Facility: | Tomball South WWTP | Project: | TMB22837 |
|-----------|----------------------------------------------------|----------|------------|
| Notes: | Calculate the capacity of treatment units based on | Date: | 11/14/2022 |
| | TCEQ Section 217 design criteria | By: | MA |
| Scenario: | 3.0 MGD Expansion (Existing 1.5 MGD Package Plant) | QC: | MUE |

1. WASTEWATER AND PLANT CHARACTERIZATION

| Flow rat | tes_ | | | | | | | | |
|----------|------------------------|-------------|------|--------------|--------------|---------------|-------------|-----|---------|
| | Existing Plant | | | | | | | | |
| | Annual average | | | 1.5 | MGD = | 1,04 | 2 gpm | l | |
| | Peak 2-hour | Factor = | 4 | 6.0 | MGD = | 4,16 | 57 gpm | I | |
| | Expanded Plant | - | | | _ | | | | |
| | Annual average | | | 3.0 | MGD = | 2,08 | 3 gpm | I | |
| | Peak 2-hour | Factor = | 4 | 12.0 | MGD = | 8,33 | 3 gpm | 1 | |
| | Future expansion | | | | - | | | | |
| | Annual average | | | 4.5 | MGD = | 3,12 | 25 gpm | 1 | |
| | Peak 2-hour | Factor = | 4 | 18.0 | MGD = | 12,50 | 0 gpm | l | |
| Raw Wa | astewater Concentratio | ns | | Peak Month | 1 | | | | |
| | BOD (total) | | mg/L | 270 | (Avg. + 1 s | td. dev.) | | | 10133.1 |
| | TSS | | mg/L | 322 | (Avg. + 1 s | td. dev.) | | | |
| | TKN | | mg/L | 54 | Assumed, | pending samp | le data | | |
| | NH3-N | | mg/L | 34 | (Avg. + 1 s | td. dev.) | | | |
| | TP | | mg/L | 8 | Assumed, | pending samp | le data | | |
| Effluent | t Requirements | | | | | | | | |
| | BOD | | mg/L | 7 | 1 | | | | |
| | TSS | | mg/L | 7 | | | | | |
| | NH3-N | | mg/L | 2 | | | | | |
| | TP | | mg/L | | 1 | | | | |
| | DO | | mg/L | 4 | 1 | | | | |
| Select 1 | Freatment Processes fr | om the list | | | | | | | |
| | Preliminary Treatment | | | Coarse Scree | ening + Fine | e Screening | | | |
| | Primary Treatment | | | None | | | | | |
| | Biological Treatment | | | Conv. Act. S | dg w/ Nitrif | ication, @ Mi | n. Temp > 1 | 5 C | |
| | Solids Treatment | | | Thickening + | Aerobic Di | gestion + De | watering | | |
| _ | | | | | | | | | |

2. HEADWORKS

Description:

The headworks will consist of coarse screens, followed by fine screens and grit removal system.

A. Coarse Screens

TCEQ Design Criteria (Chapter 217.121. Coarse Screens)

A wastewater treatment facility must use a coarse screen, unless all flow entering a wastewater treatment facility is processed through a grinder pump or grinding device.

For a manually cleaned coarse screen, the clear openings between the bars must be at least 0.5 inch but not more than 1.0 inch . A manually cleaned coarse screen must use a bar rack sloped at least 30 degrees but not more than 60 degrees from horizontal.

Screen Type: Manufacturers: Number of Coarse Screens: Capacity (Peak) per Screen: Opening Size: Width: Depth: Length: Climber Type Infilco Degremont (IDI), Vulcan 1 12 MGD 0.50 inch From Manufacturer TBD From Manufacturer

B. Fine Screens

TCEQ Design Criteria (Chapter 217.122 Fine Screening Devices)

The clear openings in a fine screen must be less than 0.25 inch.

A fine screen must meet the manufacturer's recommendations with respect to velocity and head loss through the fine screen.

| | Screen Type: Manufacturers: Number of Coarse Screens: Capacity (Peak) per Screen: Opening Size: Width: Depth: Length: | Perforated Plate Headworks, Vulcan 2 6 MGD 0.25 inch From Manufacturer TBD From Manufacturer | Sized for future |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|
| C. | Bypass Screen | | |
| | TCEQ Design Criteria (Chapter 217.121, Subchapter E) Bypass channels, sized to handle the two-hour peak flow of the facility, shall be pro- flow around any coarse screening device. Velocity through the coarse screen bar rack shall be between one and three feet pe Each grit removal unit must include: (1) an emergency overflow to accept flow when grit removal unit is off-line (2) a means of diverting flow to the emergency overflow | ovided to bypass er second e; and | |
| | Flow through screen: Velocity required by TCEQ: Area of screen opening required: Percent of screen clogged due to blinding: Area of screen required with blinding: Clear spacing between bars: Individual bar thickness: Bar + clear spacing: | 12.00 MGD 3.00 ft/s 6.19 ft ² 50% *Assumed 12.38 ft ² 1.00 in 0.25 in 1.25 in | |
| | Assume channel width: Slope from vertical: No. of bars / openings: Total width of clear opening: | 3.50 ft 45.00 deg 33.6 2.8 ft | |

Required minimum depth of channel:

Length of manual screen (submerged):

D. Grit Removal

TCEQ Design Criteria (Chapter 217.124 -127.126, Subchapter E) A grit removal system must include at least two units capable of operating at the peak flow of the wastewater treatment facility when grit removal is required by subsection (a) of this section.

Each grit removal system must include:

an emergency overflow to accept flow when a grit removal unit is off-line; and a means of diverting flow to the emergency overflow.

Mechanical vortex grit Removal

Number of Units Capacity per unit



2. ACTIVATED SLUDGE BASIN

Enter data in grey cell

TCEQ Design Criteria (Chapter 217.154, Subchapter E)

Based on the calculated organic load, the aeration basin volume must be designed to ensure that the organic loading on the aeration basin does not exceed the organic loading rates in the following table: Figure: 30 TAC §217.154(b)(2)
Description:

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

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

Aeration Basin Max. Organic Loading = Aeration basin min. depth for diffusers = Min. number of basins (for flow > 0.4 MGD) = 35 lb BOD/1000 ft³-d 10 ft 2

Table F.1 - Design Organic Loading Rates for Sizing Aeration Basins Based on Traditional Design Methods

| | Applicable Co milligra | Permit Effl oncentration ms per liter (1 | uent Sets mg/l) | Maximum Organic Loading Rate <i>Pounds</i> | (Figure: 30 T | AC 217.154(b)(2)) |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Process | Five-day Biochemical Oxygen Demand (BOD ₅) | Total Suspended Solids (TSS) | Ammonia Nitrogen | BOD₅/day/1,000 cubic feet (lbs/day/1,000cf) | | |
| Conventional activated sludge process with nitrification when reactor temperatures exceed 15° C | 10 | 15 | 3, 2, or 1 | 35 | | |
| Primary T BOD con Select \D | Treatment BOD Cr centration to aera esign BOD Loadir | redit tion basin = ng Rate = | 0% | mg/L <mark>Peak Mo</mark> | nth 35 lb BOD/1000 | ft ³ -d |
| Total peak BOD loading (based on peak month flow) = Total aeration volume required = B. <u>Aeration Basins Sizing</u> | | | | 6, 193, | 756 lb/d 029 ft ³ | Excluding package plant flow |
| Conventi Required Assume Volume o Surface a Assume Required Required | onal Rectangular I number of aeratic side water depth c of each basin = area of each basin Length to Width R I Width of each basin Length of each basin | Basin Configura on basins = f basins = = atio = sin = asin = | <u>tion</u> | 64, 3, | 3 18 ft 343 ft ³ 575 ft ² 4.0 to 1 30 ft 120 ft | 120 ft 30 ft (Typical 3 or 4 to 1) |

Aeration required (TCEQ Method)

Per Chapter 217.155 "Aeration Equipment Sizing" Equation F.2

Equation F.2.

$$O_2 R = \frac{1.2(BOD_5) + 4.3(NH_3 - N)}{BOD_5}$$

O2R = 2.07 lb O2/lb BOD 13,960 lb O2/d

| $RAF = \frac{(PPD BOD_5) \times (O_2/lb BOD_5)}{WOTE \times 0.23 \times 0.075 \times 1440}$ | | | | | |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Where: | | | | | |
| RAF = | Required Airflowrate (standard cubic feet per minute (SCFM)) | | | | |
| $PPD BOD_5 =$ | Influent Organic Load in Pounds per Day | | | | |
| 0.23 = | lb 0 ₂ /lb air @ 20° C | | | | |
| 1440 = | minutes/day | | | | |
| 0.075 = | lb air/cubic foot (cf) | | | | |
| WOTE = | Wastewater Oxygen Transfer Efficiency (decimal) | | | | |
| | If the design inlet temperature is above 24° C, the specific weight of air must be adjusted to the specific weight at the intake temperature. | | | | |

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

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

 $\frac{\text{Where:}}{\text{T}_{e} = \text{Test Efficiency}}$ FTE = Field Transfer Efficiency (decimal) WOTE = Wastewater Oxygen Transfer Efficiency (decimal) CWOTE = Clean Water Oxygen Transfer Efficiency (decimal) T = Temperature (degrees C) $C_{f} = Oxygen Saturation in Field (Includes temperature, dissolved solids, pressure, etc.)$ Ct = Oxygen Saturation in Test Conditions

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 = Diffuser submergence = Therefore, WOTE =

| ft |
|----|
| |
| |

4,804 SCFM

(Figure: 30 TAC 217.155(b)(2)(D))

226

Δ

ft

Required air flow rate (RAF) =

Diffuser Submergence Correction Factors

| Table F.5 Diffuser Submergence Correction Factors | | |
|------------------------------------------------------|-----------------------------------|--|
| Diffuser Submergence Depth (feet) | Airflow Rate Correction Factor | |
| 8 | 1.82 | |
| 10 | 1.56 | |
| 12 | 1.00 | |
| 15 | 0.91 | |
| 18 | 0.73 | |
| 20 | 0.64 | |

RAF Correction Factor for submergence =

Corrected Required Airflow Rate =

| Blower HP Calculation |
|-----------------------------|
| Static pressure = |
| Friction = |
| Blower discharge pressure = |
| Efficiency |
| Enciency – |
| Total Blower HP = |

Number of Blowers Individual Blower HP = Individual Blower TDH =

| | 0.85 | (Interpolation using the depth of the diffusers) |
|-------------------------------|-------|--------------------------------------------------|
| | 4,083 | SCFM |
| 7.4 psi 1.5 psi 8.9 psi | | (assumed) |
| 70% | | |
| HP | | |
| uni HP | ts | 1 redundant |

Individual Blower SCFM=

1,361 SCFM

Diffuser System Sizing (Sanitaire Method)

Enter data in grey cells

Description:

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

TCEQ Design Criteria (Chapter 217, Subchapter F)

| Max. surface loading rate @ peak flow = Min. detention time @ peak flow = Min. side water depth = | 1200 gal/ft ² -d 1.8 hr 10 ft | |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------|
| B. <u>Clarifier Sizing</u> Number of clarifiers required = (one clarifier per aeration basin) | 4 | |
| Peak Flow per Clarifier = | 3.00 MGD | 16711 ft ³ /hr |
| Minimum diameter (per max. SLR) = | 56.42 ft | |
| Diameter = Depth = | 70 ft 14 ft | |
| Surface area per clarifier = Volume per clarifier = | 3,848 ft ² 53,878 ft ³ | |
| Actual Surface loading rate = Actual Detention Time = | <mark>779.5</mark> gal/ft ² -d ок <mark>3.2</mark> hr ок | |

6. SLUDGE PUMPING UNITS

Enter data in grey cells

Description:

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

A. WAS Pump Sizing

TCEQ Design Criteria (Chapter 217.152, Subchapter F)

(3) A return sludge pumping system must be capable of pumping at least 200 gpd/sf but not more than 400 gpd/sf.



Net secondary sludge production =

0.85 lb VS/BOD removed

Notes: Typical minimum Solids Retention Time (SRT) maintained in WWTPs is 8 days. Secondary solids production is typically estimated at SRT of 8 days and at 15C temperature.

| | Peak Month |
|-------------------------------------------|------------|
| Select Mixed Liquor VS/TS Ratio = | 0.8 |
| Select solids concentration in WAS = mg/L | 8,000 |
| | |
| | Peak Month |
| Secondary solids produced = Ib TS/d | 6,992 |
| lb TS/hr | 291 |
| Wet secondary sludge produced = gal/d | 104,789 |
| GPM | 73 |
| | r |
| | Peak Month |
| Secondary solids produced = Ib TS/d | 6,992 |
| lb TS/hr | 291 |
| Wet secondary sludge produced = gal/d | 104,789 |
| GPM | 73 |
| | |

B. RAS Pump Sizing

Maximum secondary clarifier underflow rate per clarifier= Maximum secondary clarifier underflow per clarifier= **400** gal/d.ft² 1,539,380 gal/d 1,100 GPM

Note: One dedicated RAS pump for each clarifier with one stand by for every pair of clarifiers



7. SOLIDS HANDLING

Enter data in grey cells

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 <u>400 gallons per day per square foot</u>, but not more than 800 gallons per day per square foot.
- (D) The minimum side water depth for a mechanical gravity thickener is <u>10 feet.</u>
- (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 Mechanical Thickener

| Max. monthly sludge capacity = | <u>104,789 gal/d</u> |
|---------------------------------------------------------------------------------------------------------------|-------------------------------|
| | Peak Month |
| Assume no. of hrs a week of mechanical thickener operation = | hr 30 |
| Mechanical Thickener throughput for solids = | lb/hr 1,631 |
| sludge hydraulic loading = | gal/min 408 |
| No. of Units= Mechanical Thickener throughput for solids per unit = sludge hydraulic loading per unit = | 2 Ib/hr 816 gal/min 204 |
| Assume Solids Concentration after Thickening = | 4.5% |

Thickened secondary sludge produced = (assumes 100% capture)


C. Aerobic Digesters

TCEQ Design Criteria (Chapter 217 Subchapter J)

Minimum Temperature = Required Minimum Detention Time = Min. Volatile Solids Loading Rate = Max. Volatile Solids Loading Rate = Aeration Requirement = If Mechanical Aeration is used =

Volume Required for Aerobic Digestion

$$V = \frac{Q_i \times (X_i + YS_i)}{X \times \left((K_d \times P_v) + \left(\frac{1}{SRT}\right) \right)}$$

Where:

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

 Q_l =Digester influent (WAS) flowrate [L/d(cu ft./d)]

 X_l = Digester influent (WAS) suspended solids (mg/L)

Y = Portion of the influent BOD consisting of raw primary solids (%)

 S_l = 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)

Calculate the volume required for aerobic digesters for different flows



Reaction Rate Value Kd for an Aerobic Digester



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

Number of Existing Digesters = Depth of each Existing Aerobic Digester = Length of Exisiting Aerobic Digester = Width of each Existing Aerobic Digester = Total Volume of Existing Aerobic Digestion =

| 2 | |
|--------|-----------------|
| 15 | ft |
| 75 | ft |
| 15 | ft |
| 33,750 | ft ³ |

0.88

252,450

100 lb/1000 ft³/day 200 lb/1000 ft³/day 20 SCFM/1000 ft³ 0.5 HP/1000 ft³

(Page 25-163 on MOP 8)

20 deg C

40 days

Required Volume for Aerobic Digestion =

30,339 ft³

| | Design mixing requirement = Blower Size Required = | | 30 : 1,013 : | scfm/kcf SCFM | |
|----|--------------------------------------------------------|--------------------|-----------------|-----------------------------|--------------|
| | Number of Blowers = | lower for each na | 2 ir of blowers | | |
| | Note. One blower per basin and one back up b | | | | |
| | Each blower = | | 506 | SCFM | |
| | Blower HP Calculation | | | | |
| | Static pressure = | 6.1 psi | | | |
| | Friction = | 1.5 psi | (assumed) | | |
| | Blower discharge pressure = | 7.6 psi 17.5 ft | | | |
| | Efficiency = | 0.70 | | | |
| | Blower HP = | 48 HP | | | |
| | Each blower = | 24 HP | | | |
| | Assume VS Reduction after Digestion = | | 38% | (Aerobic - 30-50%, Anaerobi | c - 45-60%) |
| | After Digestion | | Peak Month | | |
| | Total Solids in Digester Influent = | lb T | S/d 6,992 | | |
| | Total Volatile Solids in Digester Influent = | lb V | S/d 5,593 | | |
| | Total Inert Solids in Digester Influent = | lb T | S/d 1,398 | | |
| | Total Solids in Digester Effluent = | lb T | S/d 4,866 | | |
| | | Dry To | on/d 2.43 | | |
| | Directed Solido W - | V dl | S/d 3,468 | | |
| | Digester Solids % - | a | 470 | | |
| | Digester Enident Flow Rate - | gal/ | min 12 | | |
| D. | Dewatering of secondary sludge | Ū | | | |
| | Accuracy as a fibre a weak of hold process exercises - | | Peak Month | | |
| | Assume no. of his a week of beil press operation = | | nr 30 | Evipting Cono | oitr |
| | Secondary sludge bydraulic loading = | ll Vico | min 65 | Existing Capa Pumps | City 2 |
| | Secondary sludge Hydraulic loading - | gai | 00 | Capacity per F | 2 Pur 120 |
| | Storage Time = | days | 3.0 | Total Existign | Ca 240 |
| | Dumpster storage volume = | lb TS | 14,598 | - | |
| | Dewatered Solids % = | | 15% | | |
| | Volume of Dewatered Sludge = | gal TS | 11,669 | | |
| | Dumpster size = | yd3 | 58 | | |

8. FILTRATION

Enter data in grey cells

Description: Cloth Filter Systems

A. TCEQ Design Criteria (Chapter 217.193)

Media Design

Avg. pore size of cloth filter must not exceed 30 microns Filtration Rates and Hydraulic Requirements The design filtration rate must be based on the effective submergence surface area of the media. Design filtration rate must not exceed 6.5 gal/min-sqft of submerged media The filtration system must be able to treat the design flow with one filter unit in backwash The backwash flux rate must be at least 6.0 gallons per minute per square foot of media ,

based on the portion of the filter surface that is being actively backwashed.

SIZING TO BE PROVIDED BY MANUFACTURERS

9a. DISINFECTION

Enter data in grey cells

Description: Ultraviolet Radiation Disinfection

| A. TCEQ Design Criteria (Chapter 217.295, Subchapter N) | |
|------------------------------------------------------------------------|--------|
| Approach channel min length before first ultraviolet UV bank = | 4 ft |
| Down stream channel min length = | 4 ft |
| Post-Disinfection Requirements | |
| Min Dissolved Oxygen Requirements (required if needed by WWTP permit) | 4 mg/L |
| | - |

SIZING TO BE PROVIDED BY MANUFACTURERS

Treatment Process Description

Existing Treatment Process:

The existing treatment plants consists of an influent lift station which pumps the influent wastewater to the headworks. The headworks consists of one mechanical screen and a manual bypass screen. The screened influent is then sent to a vortex grit removal unit. The screened and de-gritted wastewater is sent to an oxidation ditch for secondary treatment. The mixed liquor from the oxidation ditch flows split between two final clarifiers. The clarified effluent the flows to the chlorine contact basins where it is disinfected with chlorine gas. The final effluent is dechlorinated prior to discharge to the outfall. The settled solids from the final clarifiers are pumped back to the oxidation ditch as return activated sludge. A portion of the settled solids (waste activated sludge) is sent to a rotary drum thickener. The thickened waste activated sludge is then sent to two aerobic digester basins. The digested sludge from the aerobic digesters is pumped to a centrifuge unit for dewatering.

Interim II Phase:

The new treatment process will include a coarse screening structure where the influent wastewater will be screened prior to flowing to a new influent lift station. A new magnesium hydroxide feed system consisting of chemical storage tank, mixer, and feed pump will dose the chemical directly into the influent lift station for copper removal. The new lift station will pump all the flows to the existing headworks. A second mechanical screen will be added at the headworks. The existing vortex grit removal system will be refurbished with new grit washing/classification equipment. The effluent from the grit removal system will then flow to a splitter box that will split the flows to three new conventional activated sludge aeration basins. The flow from aeration basins will then be split between the existing two final clarifiers and two new final clarifiers. The clarified effluent from the final clarifiers will then be sent to new tertiary filtration system for further removal of solids. The filtered effluent will then flow to a new ultraviolet (UV) disinfection system. The disinfected final effluent will then be discharged to the outfall. A portion of the disinfected final effluent will flow to the existing chlorine contact basins where the non-potable water pumps are located for plant service water. The settled solids from the final clarifiers will be pumped back to the conventional aeration basins as return activated sludge and a portion (waste activated sludge) will be sent to new mechanical thickener. The thickened sludge will be sent to the existing aerobic digester basins for digestion. The digested sludge will then be pumped to a new centrifuge for dewatering prior to disposal. A new vacuum truck receiving station will be constructed during this phase to accept settled debris from manholes and lift stations in the POTW collection system, collected by the City's vacuum trucks. The debris will be emptied into a dewatering dumpster at the receiving station. Drainage from the dumpster at the vacuum truck receiving station will flow to the influent lift station. The dewatered debris will then be transported to a landfill for disposal.

Final Phase:

Final phase treatment process will be of the same configuration as described in Interim II phase. Expansion to final phase will include expansion of the influent lift station, headworks (screens and grit removal), aeration basins, clarifiers, filters, UV system, mechanical thickeners, aerobic digesters, and centrifuge.

| Phase | Treatment Unit Type | Number of Units | Overall Structure Dimensions (L x W x D) |
|-----------|-----------------------------|--------------------|---------------------------------------------|
| | | | in Feet |
| | Oxidation Ditch | 1 | 245' x 66' x 11' |
| Existing/ | Clarifiers | 2 | 70' DIA x 13' SWD |
| Interim I | Chlorine Contact Basins | 2 | 56' x 11' |
| | Digester | 2 | 80' x 15' |
| | Coarse Screen | 1 | 28 L X 30 W X 36 D |
| | Influent Lift Station | 1 | 20L X 30 W X 45 D |
| | Headworks - Fine Screen | 2 | 30 L X 10 W |
| | Headworks – Grit Removal | 1 | 12 DIA |
| | System | | |
| Intorim | Aeration Basins | 3 | 128 L X 90 W X 18 D |
| пцент | Final Clarifiers - Existing | 2 | 70 DIA X 13 D |
| 11 | Final Clarifiers - New | 2 | 70 DIA X 14 D |
| | Filters | 1 | 30 L X 30 W X 11.25D |
| | UV System | 1 | 42 L X 20 W X 10 D |
| | Mechanical Thickener | 2 | 30 L X 18 W |
| | Aerobic Digester | 2 | 80 L X 40 W X 17 D |
| | Dewatering - Centrifuge | 1 | 21 L X 16 W |
| | Coarse Screen | 2 | 28 L X 30 W X 36 D |
| | Influent Lift Station | 1 | 20L X 30 W X 45 D |
| | Headworks - Fine Screen | 2 | 30 L X 10 W |
| | Headworks – Grit Removal | 2 | 12 DIA |
| | System | | |
| Final | Aeration Basins | 6 | 128 L X 180 W X 18 D |
| 1 mai | Final Clarifiers | 6 | 70 DIA X 14 D |
| | Filters | 2 | 30 L X 60 W X 11.25D |
| | UV System | 2 | 42 L X 20 W X 10 D |
| | Mechanical Thickener | 4 | 30 L X 36 W |
| | Aerobic Digester | 4 | 51 W X 84 L X 17 D |
| | Dewatering - Centrifuge | 2 | 40 L X 16 W |

INTERLOCAL COOPERATION AGREEMENT

THE STATE OF TEXAS § COUNTY OF HARRIS §

This Agreement (the "Agreement") is made and entered into pursuant to the Interlocal Cooperation Act (Chapter 791, Texas Government Code) by and between the **City of Tomball**, a home rule municipal corporation located in Harris County, Texas (the "City"), and the **Harris County Flood Control District**, a body corporate and politic under the laws of the State of Texas (the "District").

WITNESSETH, that

WHEREAS, District and City entered into an agreement (the "Original Agreement") on September 24, 1996, to implement a regional flood control plan (the "Project"), which was to consist of the acquisition of flood plain storage and/or acreage for development of future detention sites; and

WHEREAS, pursuant to the Original Agreement, District acquired an 85.4536-acre tract of land, more or less (the "Original Property"), for the Project's first phase as described in the Original Agreement, said Original Property being more particularly described by metes and bounds in Exhibit "A" attached hereto and for all things made a part hereof; and

WHEREAS, at District's request, City has not paid to District any portion of the purchase price of the Original Property as contemplated by the Original Agreement; and

WHEREAS, City subsequently purchased a portion of the Original Property from District for use as a wastewater treatment plant site (the "Wastewater Plant Site"), said Wastewater Plant Site containing 10.0 acres of land, more or less, and being more particularly described by metes and bounds in Exhibit "B" attached hereto and for all things made a part hereof; and

WHEREAS, District and City no longer wish to pursue the joint objectives set out in the Original Agreement pursuant to the terms thereof, but mutually agree that it is in the best interest of each to supersede and replace the Original Agreement with the agreement set forth herein; and

WHEREAS, District and City also desire to enter into this Agreement for the purpose of jointly implementing a flood control program for the area within the City known and identified by District as the M121-00-00 watershed, the implementation of which would be mutually beneficial to the District and the City; now therefore,

For and in consideration of the mutual covenants, agreements, and benefits to the parties herein named, the parties agree as follows:

I. RECITATIONS AND FINDINGS; PURPOSES

- A. The facts and matters set forth in the preamble to this Agreement are hereby found to be true and correct.
- B. A purpose of this Agreement is to establish the roles and responsibilities of the City and District with regard to implementation of a joint flood control program for the Unit M121-00-00 watershed. The boundaries of the M121-00-00 watershed are more particularly described and depicted on Exhibit "C" attached hereto and for all things made a part hereof. The flood control program is designed to provide storm water conveyance and mitigation for anticipated improvements within such watershed, and shall include acquisition of properties, engineering design and construction of capital improvements, and management and maintenance of the properties following completion of such improvements.
- C. This Agreement shall completely replace and supersede the Original Agreement between the parties with respect to the subject matter of such agreement. The Original Property acquired by the District pursuant to the Original Agreement shall belong exclusively to the District, with the exception of the Wastewater Plant Site, which portion shall belong exclusively to the City. The Original Property acquired by the District which shall belong exclusively to the District is the Original Property, excluding the Wasterwater Plant Site, which is more fully described in Exhibit "D" hereto; the property conveyed to the City by the District as the Wastewater Plant Site is more fully described in Exhibit "B" hereto; both exhibits are hereby made a part hereof by reference for all purposes.
- D. The District authorizes the City to enter upon land or right of way belonging to the District for the purposes of preparation and execution of engineering design, construction, and maintenance of the channel and/or detention facilities constructed as part of the M121-00-00 Regional Flood Control Program. Any right conferred hereunder to the City to enter or use District land or right of way for the purpose of completing performance of this Agreement shall be applicable to any contractor, subcontractor, or licensee hired to perform the City's obligations hereunder, subject to all requirements, limitations and restrictions with respect to such land or right of way that apply to the City or the District.

The City's authority to enter upon the land or right of way belonging to the District E. is expressly limited to the purposes set forth herein, and is further limited to the extent of the District's right, title or interest in and to the land or right of way used by the City for constructing or maintaining the facilities and the District makes no representation or warranty regarding its right, title, or interest in or to said land or right of way. District assumes no responsibility for the well-being or disposition of any items of equipment or personal property placed on land or right of way belonging to the District, and on account thereof the City shall have no claim for damages of any kind or character against the District, its agents, officers, servants or employees. The City's right to use the District's land or right of way confers no rights of ownership or easement in or to the same and the District may at any time demand the immediate removal of, or itself take action to remove, any and all equipment, improvements, personal property, and personnel, when in the District's sole discretion the same shall become necessary or convenient for flood control purposes. The District assumes no responsibility for the well-being or disposition of any items of equipment or personal property removed hereunder, and the City shall have no claim for damages of any kind or character on account thereof against the District, its agents, officers, servants, or employees.

II. DUTIES OF THE PARTIES

- A. <u>Real Property Acquisition and Ownership</u>. Responsibility for the acquisition of land or right of way necessary for the Project, including all costs associated therewith, shall be as set forth below. No land or right of way acquired and/or owned pursuant to this Agreement by either party shall be conveyed or assigned to a third party, without the consent of the other party to this Agreement, and unless such third party is a governmental entity succeeding to the powers of the owner/grantor.
 - 1. <u>M121-00-00 Channel and M121-00-00 Lateral Channel</u>. Ownership in and title to the M121-00-00 channel (sometimes referred to as the "east channel") and the M121-00-00 lateral channel (sometimes referred to as the "west channel"), the general locations of which are described and depicted on Exhibit "C," shall be held exclusively by City. City shall be responsible for acquisition of all properties required for such channels which are located north of Holderrieth Road, and District shall be responsible for acquisition of all properties required for such channels which are located south of Holderrieth Road. A party shall only be liable for costs associated with the property acquisitions for which it is responsible hereunder.

- 2. <u>M500-01-00 Detention Basin</u>. Ownership in and title to the M500-01-00 Detention Basin, same being a 75.5-acre tract of land, more or less, and also being that portion of the Original Property exclusive of the Wastewater Plant Site, shall be held solely by the District. The M500-01-00 Detention Basin site is more particularly described in Exhibit "C." District is the current record owner of such site. City shall not be liable to District for any costs incurred by District in the acquisition of the M500-01-00 Detention Basin.
- B. <u>Design and Construction of Capital Improvements</u>. Responsibility for the design and construction of the improvements contemplated hereby, and payment for all costs associated therewith, shall be as set forth below. Such capital improvements shall include not only the specific channels and detention site improvements described below, but also all related hydraulic structures incidental thereto to be located upon or within the properties for which such improvements are to be constructed. Such capital improvements shall be designed and constructed in accordance with the engineering reports heretofore prepared for District by Espey, Huston & Associates and PBS&J, true and correct copies of which are on file in the offices of District. Any and all costs incurred as of the date hereof for design or construction of such capital improvements shall be borne by the party incurring the same and such party shall not be entitled to a credit or offset for such expenditure.
 - 1. <u>M121-00-00 Channel and M121-00-00 Lateral Channel</u>. City shall be responsible for the preparation of engineering design for and construction of each such channel. The design of such channels shall be subject to the approval of District, which approval shall not be unreasonably withheld. Construction shall be in accordance with the approved plans therefor. Such design shall be in accordance with the applicable standards of District and in accordance with acceptable engineering practices. All costs associated with the design and construction of such channels shall be assumed by City; provided however, that nothing herein shall be construed as limiting City from seeking contributions or requiring dedications, in cash or in kind, as conditions of development within the affected watershed.
 - 2. <u>M500-01-00 Detention Basin</u>. City shall be responsible for the preparation of engineering design for and construction of the M500-01-00 Detention Basin. The design of such basin shall be subject to the approval of District, which approval shall not be unreasonably withheld. Construction shall be in accordance with the approved plans therefor. Such design shall be in accordance with the applicable standards of District and in accordance with acceptable engineering practices. All costs associated with the design and construction of such basin shall be assumed by City; provided however, that nothing herein shall be construed as limiting City from seeking contributions or requiring dedications, in cash or in kind, as conditions of development within the affected watershed. Provided further, that no construction or excavation within the M500-01-00 Detention Basin shall be caused or permitted unless by City or with City's consent, which shall not be unreasonably withheld.

- 3. Upon completing construction of any portion of the channels or detention basin, the City shall prepare and deliver to the District "Record Drawings," prepared and sealed by a professional engineer, showing the Project as constructed. The City shall request a final construction inspection by the District and shall promptly correct any deficiencies noted at that time. The City shall be responsible for repairing deficiencies noted by the District for a period of one year. The District shall again inspect the constructed facilities at the end of one year. When the District is satisfied with the constructed facilities and all deficiencies have been corrected, it shall assume full ownership of and responsibility for the maintenance and repair of the facilities, to the extent, and in the same manner as for other like or similar facilities within the District.
- 4. The City represents that all work performed pursuant to this Agreement shall be performed in accordance with all applicable federal, state and local laws, ordinances and regulations, including but not limited to laws, ordinances and regulations of the Environmental Protection Agency, U.S. Army Corps of Engineers, the Texas Antiquities Committee, the U.S. Environmental Protection Agency, the Texas Natural Resource Conservation Commission, and local permitting authorities. Evidence of procedures completed to comply with, and all permits required by, these laws, ordinances or regulations shall be submitted to the District upon request.
- C. <u>Additional Rights, Responsibilities, and Obligations</u>. In addition to the foregoing, the parties shall be responsible for accomplishment of the following:
 - 1. <u>Environmental Due Diligence</u>. Each party shall be responsible for conducting necessary environmental assessments of the properties to be acquired by such party. City shall not be liable for the cost of any such assessments heretofore caused to be performed by District.
 - Pipeline Investigation; Relocation or Adjustment. District shall conduct an investigation of all underground pipelines within the real properties to be acquired hereunder which are located south of Holderrieth Road, at its cost, which investigation shall be made available to the City. Any relocation or adjustment of pipelines necessary for the construction of improvements by the City shall be at the sole cost and expense of the City.

Water Well. City shall have a temporary exclusive right to use and draw water 3. from the Water Well located on the existing 75.5-acre tract of M500-01-00 Detention Basin site, provided that the City shall pay for the operation and maintenance of the Well, including all permit fees and other fees associated with its maintenance and operation, and shall prepare any Groundwater Reduction Plan required to operate the Well. City's exclusive right to withdraw water from the Well shall be for a period of two (2) years from the date hereof, or upon the date that City's potable water transmission facilities have been extended to the Wastewater Plant Site, whichever first occurs. City shall provide or contract for all labor, equipment, electricity and supplies necessary to operate, maintain and improve the Well. City agrees not to cause waste upon the Detention Basin Site or to permit its agents, employees, or contractors to cause any waste thereon. City shall provide for the proper maintenance and repair of the Well during such use, and shall restore any portion of the Detention Basin Site damaged or destroyed by City incident to the use of said Well to a condition that equals or exceeds that which existed prior to such damage or destruction. District assumes no liability for any injury or damage arising in connection with the City's use of the Well or the Detention Basin Site

•

- 4. Expansion of Detention Facilities. Neither party shall acquire and/or devote any additional acreage adjacent to or within one thousand feet (1000') of the M500-01-00 Detention Basin for use as detention or other flood control purposes, until a total of six hundred (600) acre feet of detention capacity has been acquired and constructed for use by City for flood control purposes for the M121-00-00 watershed.
- 5. Neither District nor City assumes any liability, obligation or responsibility with respect to any action taken by the other, or with respect to damage or injury caused by any structure constructed by the other, in securing, exercising, or in any manner performing the terms and conditions of this Agreement.
- 6. Rights granted by the terms of this Agreement are expressly made subject to all leases, licenses, and other agreements or instruments pertaining to the subject property to which the District or City is a party.
- D. <u>Maintenance of Properties and Improvements</u>. District shall be responsible for maintenance of the properties and capital improvements described herein, as set out in Section II-B-3 above. District shall not assume any responsibility for maintenance of any recreational facility or improvement that may be placed upon any of such properties by City, it being specifically agreed and understood that maintenance responsibilities therefor shall be in accordance with the agreements and understandings under which City is authorized to place or construct such facilities.

III. CITY'S CAPACITY IN FACILITIES

City shall be reserved capacity, for its beneficial use, in the storm water detention facility to be constructed on the M500-01-00 Detention Basin Site in an amount of not less than six hundred (600) acre feet. Determinations of tracts to be allowed capacity in the channels and detention facility shall be within the sole discretion of City, provided however, that no such determination shall be in contravention of the Willow Creek Mid Reach Watershed Study Final Phase 3 Report, dated June 1999, or the Recommended Alternative Evaluation of M121-00-00 and the M121 Lateral, dated September 1999, each such report being on file in the office of District. Capacity in any expansion of detention facilities shall be reserved to City as set forth in Section II-C-4 above.

IV. DEFAULT

In the event of any default by either party in the performance of its obligations hereunder which shall continue for a period of thirty (30) days or more, the non-defaulting party may give written notice to the other party specifying the matter with respect to which the other party is in default and requesting that the default be remedied with promptness and dispatch. In the event the defaulting party, within forty-five (45) days after the mailing of such notice, has failed to remedy the matter in default, the non-defaulting party may, by an additional written notice to the other, immediately cancel and terminate this Contract, whereupon all rights of the defaulting party and all obligations of the non-defaulting party shall terminate. The exercise of such rights shall be in addition to any other remedies available to the non-defaulting party under the laws of the State of Texas. Termination under this provision shall not affect those portions of this Agreement providing for the termination of the Original Agreement. Such provisions shall survive any termination of this Agreement under this Section and shall remain in full force and effect.

V. APPROVAL

Whenever this Agreement requires or permits approval or consent to be hereafter given by any party, such approval or consent, if finally given, shall be effective as stated by the terms of the approval or consent and shall be evidenced by an ordinance, resolution or order adopted by the governing body of such party, or by an appropriate certificate executed by a person, firm, or entity previously authorized to determine and give such approval or consent on behalf of the party pursuant to an ordinance, resolution, or order adopted by the governing body, unless stated otherwise herein.

VI. NOTICES

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the City at the following address:

City of Tomball 401 W. Market St., Suite C Tomball, Texas 77375 Attention: Mayor

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the District at the following address:

Harris County Flood Control District 9900 Northwest Freeway Houston, Texas 77092 Attention: Director

VII. NOT A JOINT ENTERPRISE

This Agreement is not intended to and shall not create a joint enterprise between the City and the District. The parties hereto are undertaking governmental functions or services under this Agreement and the purpose hereof is solely to further the public good, rather than any pecuniary purpose. The party undertaking work under this Agreement shall have a superior right to control the direction and management of such work and the responsibility for day-to-day management and control of those properties acquired pursuant to this Agreement upon which such work is performed, except as may otherwise expressly be provided herein.

VIII. FUNDING

The parties specifically acknowledge and agree that design and construction of the Unit M121-00-00 improvements and the acquisition of land or right of way necessary for such construction is contingent on funding of such design, construction, or land acquisition by the City or District as provided in this Agreement and that no funds have been appropriated or encumbered for such purposes, but that City or District may, but shall not be obligated to, at its sole discretion, from time to time encumber or appropriate funds for land or right of way acquisition or the design or construction of the M121-00-00 improvements. In the event that either the City or the District fails or refuses to appropriate or expend funds necessary to acquire land or right of way or to design or construct a portion of the M121-00-00 improvements, as provided herein, the sole remedy of the other party shall be to notify the party failing or refusing to fund the same of such deficiency and to terminate this Agreement if the party refusing or failing to fund such land acquisition, design, and/or construction has not remedied such deficiency within forty-five (45) days after receiving notice of same, as provided under Section IV. of this Agreement. Termination under this provision shall only affect the portions of this Agreement providing for the design and construction of the M121-00-00 improvements and the acquisition of land or right of way necessary for such construction and shall not affect those portions of this Agreement providing for the termination of the Original Agreement. The latter provisions shall survive any termination of this Agreement under this Section and shall remain in full force and effect.

IX. ASSIGNMENT

No party hereto shall make, in whole or in part, any assignment of this Agreement or any right or obligation hereunder without the prior written consent of the other party.

X. ENTIRE AGREEMENT

This instrument contains the entire agreement between the parties relating to the rights herein granted and the obligations herein assumed. Any modifications concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

| EXECUTED in triplicate originals on | JUN 6 4 2002 | |
|-------------------------------------|--------------|--|
| | | |

APPROVED AS TO FORM:

MIKE STAFFORD County Attorney

B

PÁUL TAPARAUSKAS Senior Assistant County Attorney Section Chief, Flood Control Section

HARRIS COUNTY FLOOD CONTROL DISTRICT

B UBERT ECKELS

ROBERA ECKELS County Judge

COUNTERSIGNED

By City Manager

CITY OF TOMBALL

m Bv Mayo

ATTEST:

12 1 Name Title

ATTEST:

nany Coker Name Title

EXHIBIT "A"

FN 1080 SRI Job No. 18555-10 May 27, 1997 Page 1 of 3

Metes and Bounds Description 85.4536 Acres (3,722,358 Sq. Ft.) Claude N. Pillot Survey, A - 632 Harris County, Texas

Being a tract of land containing \$5.4536 acres (3,722,358 square feet) of land situated in the Claude N. Pillot Survey, Abstract No. 632, Harris County, Texas and being all of a called 85 acre tract described in deed from Ella Marie Kimbrough to Elvis L. (Roy) Kimbrough, Trustee by probate, said deed dated January 11, 1994 and recorded under File Number P650367, Film Code Number 197-56-1347 of the Harris County Official Public Records of Real Property (H.C.O.P.R.R.P.); said 85.4536 acre tract being more particularly described by metes and bounds as follows with all bearings referenced to the aforementioned deed and based on the southerly line of said 85 acre tract described in said deed, having a bearing of West:

BEGINNING at a ¹/₂-inch iron pipe found for the common northerly corner of said 85 acre tract and a called 2 acre tract described in deed to Lawrence Robert Harris, Jr. recorded under File Number P137723, Film Code Number 122-44-1388 of the H.C.O.P.R.R.P., being in the southerly right-ofway line of Holderrieth Road (60 feet wide) as described in deed to Harris County recorded in Volume 815, Page 230 of the Harris County Deed Records (H.C.D.R.);

THENCE, South 19°06'36" East. (called South 19° East) departing said southerly right-of-way line and along the line common to said 85 acre tract and 2 acre tract, at 441.86 feet passing the common westerly corner of said 2 acre tract and a called 14.0421 acre tract described in deed to Milton F. Michel, et ux recorded under File Number N820268, Film Code Number 107-53-2075 of the H.C.O.P.R.R.P., at 693.71 feet passing a ½-inch iron rod found for the common westerly corner of said 14.0421 acre tract and a called 4 acre tract described in deed to H.O. Pillot, et al recorded in Volume 941, Page 38 of the Harris County Deed Records (H.C.D.R.), continuing in all 1.117.06 feet to a ½-inch iron rod found for the most southerly corner of said 4 acre tract, being an interior corner of said 85 acre tract;

THENCE, North 72°49'12" East. (called North 73° East) 394.52 feet. along the most southerly line common to said 85 acre tract and 4 acre tract. to a 1-inch axle found for the common northerly corner of said 85 acre tract and a called 53.1 acre tract described in deed to Emma K. Holderrieth recorded in Volume 355, Page 534 of the H.C.D.R.;

FN 1080 SRI Job No. 18555-10 May 27, 1997 Page 2 of 3

THENCE, South 19°11'20" East. (called South 19° East) along the line common to said 85 acre tract and 53.1 acre tract, at 1,250.50 feet passing the centerline of Willow Creek, continuing in all 1,394.13 feet to a 1-inch axle found for the common southerly corner of said 85 acre tract and 53.1 acre tract, being in the northerly line of a called 92.1903 acre tract described in deed to William L. Medford and Margaret Elise Joseph, co-trustees recorded under File Number R182474. Film Code Number 502-06-0505 of the H.C.O.P.R.R.P., also being the common line to the Claude N. Pillot Survey and the Wilhelm Usener Survey, Abstract No. 820;

THENCE, North 90°00'00" West, (called West) along said common line, at 155.04 feet passing the common northerly corner of said 92.1903 acre tract and a called 7.4887 acre tract described in deed to James W. Whitchurch, et ux recorded under File Number R522363, Film Code Number 504-89-1149 of the H.C.O.P.R.R.P., from which a found 5/8-inch iron rod bears North 00°00'00" East, 5.50 feet, at 681.95 feet passing a 1/2-inch iron pipe found for the common northerly corner of said 7.4887 acre tract and a called 13.0776 acre tract described in deed to Ronald W. Hearen, Trustee recorded under File Number P808832, Film Code Number 095-66-1007 of the H.C.O.P.R.R.P., at 1,301.86 feet passing the common northerly corner of said 13.0776 acre tract and a called 24 acre tract described in deed to Donald Alfred Wotrich recorded under File Number F098954, Film Code Number 162-11-1135 of the H.C.O.P.R.R.P. from which a found 1/2-inch iron rod bears North 00°00'00" East, 0.14 foot at 1,758.17 feet passing a 1/2-inch iron rod found for the common northerly corner of said 24 acre tract and a called 25 acre tract described in deed to Cecil Patrick Faris recorded in Volume 5249, Page 559 of the H.C.D.R. and under File Number B753545, Film Code Number 095-17-0459 of the H.C.O.P.R.R.P., continuing in all 2,235.56 feet to the common southerly corner of said 85 acre tract and a called 46.75 acre tract described in deed to Carolyn Ann Lang, et ux recorded under File Number H468089, Film Code Number 015-96-1553 of the H.C.O.P.R.R.P., also being the common northerly corner of said 25 acre tract and a called 21.2733 acre tract described in deed to Gower Construction Company recorded under File Number M552665, Film Code Number 171-72-2489 of the H.C.O.P.R.R.P.:

THENCE, North 00°27'12" East. (called North) 2,257.21 feet, departing said common survey line and along the line common to said 85 acre tract and 46.75 acre tract, to a 5/8-inch iron rod set for the common northerly corner of said 85 acre tract and 46.75 acre tract, being in the southerly right-of-way line of said Holddreith Road;

THENCE, South 89°54'57 East. (called East) 1,016.81 feet, along said southerly right-of-way line. to the POINT OF BEGINNING, containing a computed area of 85.4536 acres (3,722,358 square feet) of land.

FN 1080 SRI Job No. 18555-10 May 27, 1997 Page 3 of 3

This description was prepared by SRI in May, 1997 along with a plat of survey. Drawing No. 863.

STATE OF TEXAS KNOW ALL MEN BY THESE PRESENTS: COUNTY OF HARRIS

That I, Richard R. Dorr, a Registered Professional Land Surveyor, do hereby certify that the above description is true and correct to the best of my knowledge and that the property described herein was determined by a survey made on the ground during April & May, 1997 under my direction and supervision.

WITNESS MY HAND AND SEAL at HOUSTON, Harris County, Texas the 27th day of May, 1997, A.D.

SURVEY RESOURCES, INC. 3200 Wilcrest, Suite 110 Houston, Texas 77042



Richard R. Dorr Registered Professional Land Surveyor No. 4780 - State of Texas

FN1081 SRI Job No. 18555-10 April 2, 1998 Page 1 of 2

EXHIBIT "B"

Metes and Bounds Description 10.000 Acres (435,594 Sq. Ft.) Claude N. Pillot Survey, A - 632 Harris County, Texas

Being a tract of land containing 10.0000 acres (435,594 square feet) of land situated in the Claude N. Pillot Survey, Abstract No. 632, Harris County, Texas and being out of a called 85 acre tract described in deed from Ella Marie Kimbrough to Elvis L. (Roy) Kimbrough, Trustee by probate, said deed dated January 11, 1994 and recorded under File Number P650367, Film Code Number 197-56-1347 of the Harris County Official Public Records of Real Property (H.C.O.P.R.R.P.); said 10.0000 acre tract being more particularly described by metes and bounds as follows with all bearings referenced to the aforementioned deed and based on the southerly line of said 85 acre tract, having a bearing of North 90°00'00" West:

COMMENCING at a 1/2-inch iron rod found for the common northerly corner of said 85 acre tract and a called 2 acre tract described in deed to Lawrence Robert Harris, Jr. recorded under File Number P137723, Film Code Number 122-44-1388 of the H.C.O.P.R.R.P., being in the southerly right-of-way line of Holderrieth Road (60 feet wide) as described in deed to Harris County recorded in Volume 815, Page 230 of the Harris County Deed Records (H.C.D.R.), thence as follows:

North 89°54'57" West, 387.31 feet, along the line common to said 85 acre tract and Holderrieth Road, to a 5/8-inch iron rod set for the POINT OF BEGINNING of the herein described tract;

THENCE, South 00°27'12" West, 800.00 feet, departing said common line to a 5/8-inch iron rod set for the southeasterly corner of the herein described tract;

THENCE, North 89°54'57" West, 544.50 feet to a 5/8-inch iron rod set for corner;

THENCE, North 00°27'12" East, 800.00 feet, to a 5/8-inch iron rod set for corner, being in the southerly right-of-way line of said Holderrieth Road;

FN 1081 SRI Job No. 18535-10 April 2, 1998 Page 2 of 2

THENCE, South 89°54'57" East, 544.50 feet, along the line common to said 85 acre tract and Holderrieth Road, to the POINT OF BEGINNING, containing a computed area of 10.0000 acres (435,594 square feet) of land.

This description was prepared by SRI in April, 1998 along with a plat of survey, Drawing No. 864.

STATE OF TEXAS

That I, Richard R. Dorr, a Registered Professional Land Surveyor, do hereby certify that the above description is true and correct to the best of my knowledge and that the property described herein was determined by a survey made on the ground during April 1998 under my direction and supervision.

WITNESS MY HAND AND SEAL at HOUSTON, Harris County, Texas the 2nd day of April, 1998, A.D.

SURVEY RESOURCES, INC. 3200 Wilcrest, Suite 110 Houston, Texas 77042



Richard R. Dorr Registered Professional Land Surveyor No. 4780 - State of Texas



B-3



EXHIBIT "D"

Unit M500-01-00 Tract 12-001.1 75.4536 Acres

All information contained within this exhibit is per the description for an 85.4536 Acre Tract described in the Judgment on the Award recorded at Clerk's File No. S826278, Film Code No. 516-59-0812, of the Official Public Records of Real Property of Harris County, Texas, and a 10.000 Acre Tract described in the Special Warranty Deed recorded at Clerk's File No. S979285, Film Code No. 518-15-3908, of the Official Public Records of Real Property of Harris County, Texas. The aforementioned descriptions were prepared by Richard R. Dorr, a Registered Professional Land Surveyor, of Survey Resources, Inc., for the Harris County Flood Control District. Any and all reference to actual property boundary and/or description is directed to above Judgment on the Award and Special Warranty Deed.

Unit M500-01-00, Tract 12-001.1: Being a tract of land containing approximately 75.4536 acres of land situated in the Claude N. Pillot Survey, Abstract 632, Harris County, Texas. The 75.4536 acres is the residual acreage out of the 85.4536 acres as described in the Judgment on the Award recorded at Clerk's File No. S826278, Film Code No. 516-59-0812, of the Official Public Records of Real Property of Harris County, Texas, save and except the 10.000 Acre Tract described in the Special Warranty Deed recorded at Clerk's File No. S979285, Film Code No. 518-15-3908, of the Official Public Records of Real Property of Harris County, Texas.

M500-01-00(75).doc

| THE STATE OF TEVAS | • | JUN 0 4 2002 |
|----------------------|---------|-------------------|
| THE STATE OF TEXAS § | APPROVE | |
| COUNTY OF HARRIS | 9 § | Recorded Vol Page |

The Commissioners Court of Harris County, Texas, sitting as the governing body of the Harris County Flood Control District, convened at a meeting of said Court at the Harris County Administration Building in the City of Houston, Texas, on ______JUN 0 4 2002 ____, with the following members present, to-wit:

Robert Eckels El Franco Lee James Fonteno Steve Radack Jerry Eversole County Judge Commissioner, Precinct No. 1 Commissioner, Precinct No. 2 Commissioner, Precinct No. 3 Commissioner, Precinct No. 4

and the following members absent, to-wit: Nowc constituting a quorum, when among other business, the following was transacted:

ORDER AUTHORIZING INTERLOCAL COOPERATION AGREEMENT THE HARRIS COUNTY FLOOD CONTROL DISTRICT AND THE CITY OF TOMBALL FOR A REGIONAL FLOOD CONTROL PROGRAM

| Commissioner 77 | ADACIL | | introduced an | order and made a |
|-----------------------------------------------------------|---------------------|----------------------|----------------------------|-------------------------|
| motion that the same be adop | ted. Commission | er <u>Ev</u> | ersole | seconded the |
| motion for adoption of the orde by the following vote: | r. When motion real | rying with Yes No | it the adoption of Abstain | of the order, prevailed |
| | Judge Echels | | | |
| AYES: | Comm. Los | | | |
| NAYS: | Colom. Foldano | | | |
| ABSTENTIONS: | Comm. Racack | | | |

The County Judge thereupon announced that the motion had duly and lawfully carried and that the order had been duly and lawfully adopted. The order thus adopted follows:

WHEREAS, District and City entered into an agreement (the "Original Agreement") on September 24, 1996, to implement a regional flood control plan (the "Project"), which was to consist of the acquisition of flood plain storage and/or acreage for development of future detention sites; and

WHEREAS, pursuant to the Original Agreement, District acquired an 85.4536-acre tract of land, more or less (the "Original Property"), for the Project's first phase as described in the Original Agreement, said Original Property being more particularly described by metes and bounds in Exhibit "A" attached hereto and for all things made a part hereof; and

WHEREAS, at District's request, City has not paid to District any portion of the purchase price of the Original Property as contemplated by the Original Agreement; and

WHEREAS, City subsequently purchased a portion of the Original Property from District for use as a wastewater treatment plant site (the "Wastewater Plant Site"), said Wastewater Plant Site containing 10.0 acres of land, more or less, and being more particularly described by metes and bounds in Exhibit "B" attached hereto and for all things made a part hereof; and WHEREAS, District and City no longer wish to pursue the joint objectives set out in the Original Agreement pursuant to the terms thereof, but mutually agree that it is in the best interest of each to supersede and replace the Original Agreement with the agreement set forth herein; and

WHEREAS, District and City also desire to enter into this Agreement for the purpose of jointly implementing a flood control program for the area within the City known and identified by District as the M121-00-00 watershed, the implementation of which would be mutually beneficial to the District and the City; now therefore,

NOW, THEREFORE, BE IT ORDERED BY THE COMMISSIONERS COURT OF HARRIS COUNTY, TEXAS THAT:

- Section 1: The recitals set forth in this order are true and correct.
- Section 2: County Judge Robert Eckels is hereby authorized to execute for and on behalf of the Harris County Flood Control District, an Agreement by and between the Harris County Flood Control District and The City of Tomball, said Agreement being incorporated herein by reference for all purposes as though fully set forth verbatim herein.

interlocalAgreement2-19-01revised.doc





130 S. Trade Center Parkway, Conroe TX 77385 Tel: (936) 321-6060 Email: lab@nwdls.com www. NWDLS.com

December 04, 2024

Laboratory Report

James Linney City of Tomball 501 James Street Tomball, TX 77375

Report ID: 20241204103844AEN

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

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

Sincerely,

undre for

Aundra Noe Project Manager



Reported:

12/04/2024 10:38

Sample Results

| Client Sample ID: Lab Sample ID: | 18 Mohm DI 24K1723-01 | | | | | Sam Date | ole Matrix: Collected | Waste | Water /2024 7:25 | |
|-------------------------------------|--------------------------|---|-----------|-------|-------|-------------|--------------------------|---------------|---------------------|---------|
| City of Tomball - O | | | [none] | | Colle | cted by: | Francis | sco Gutierrez | | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Metals, Total | | | | | | | | | | |
| EPA 1631E | Mercury | Α | <0.00500U | ug/L | 1 | 0.00250 | 0.00500 | BHK1635 | 11/14/2024 14:19 | ТВВ |



Reported: 12/04/2024 10:38

TBB

| | | | Samp (Co | le Result | S | | | | | |
|----------------------|-------------------------------|---|-------------|-----------|----|-------|-------------|-------|-----------------|---------|
| Client Sample ID: | Outfall 001 3 Part Grab | | | | | Samp | ole Matrix: | Wast | te Water | |
| Lab Sample ID: | 24K1723-02 | | | | | Date | Collected: | 11/0 | 6/2024 7:25 | |
| City of Tomball - Ou | utfall 001 3 Part Grab Comp 1 | | | [none] | | Colle | cted by: | Fran | cisco Gutierrez | |
| Method A | nalyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Metals, Total | | | | | | | | | | |

EPA 1631E Mercury

<0.00500U ug/L

1

0.00250

А

0.00500 BHK1635 11/14/2024 14:23

^{*} A = Accredited, N = Not Accredited or Accreditation not available



Reported: 12/04/2024 10:38

TBB

| | | | Samp (Co | le Result | S | | | | | |
|----------------------|-------------------------------|---|-------------|-----------|----|-------|-------------|-------|-----------------|---------|
| Client Sample ID: | 18 Mohm DI | | | | | Samp | ole Matrix: | Was | te Water | |
| Lab Sample ID: | 24K1724-01 | | | | | Date | Collected: | 11/0 | 6/2024 13:40 | |
| City of Tomball - Ou | utfall 001 3 Part Grab Comp 2 | | | [none] | | Colle | cted by: | Fran | cisco Gutierrez | |
| Method A | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Metals, Total | | | | | | | | | | |

EPA 1631E Mercury <0.00500U ug/L

1

А

0.00250

BHK1635 11/14/2024 14:28 0.00500

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



Reported: 12/04/2024 10:38

| | | | Samp (Co | le Result | ts | | | | | |
|-------------------|--------------------------------|---|-------------|-----------|----|---------|-------------|---------|------------------|---------|
| Client Sample ID: | Outfall 001 3 Part Grab | | | | | San | nple Matrix | : Waste | Water | |
| Lab Sample ID: | 24K1724-02 | | | | | Dat | e Collected | : 11/06 | /2024 13:40 | |
| City of Tomball - | Outfall 001 3 Part Grab Comp 2 | | | [none] | | Coll | lected by: | Franci | sco Gutierrez | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Metals, Total | | | | | | | | | | |
| EPA 1631E | Mercury | A | <0.00500U | ug/L | 1 | 0.00250 | 0.00500 | BHK1635 | 11/14/2024 14:33 | ТВВ |

EPA 1631E

Mercury

<0.00500U ug/L

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



Reported:

12/04/2024 10:38

| Sample Results (Continued) | | | | | | | | | | |
|----------------------------------------|----------------------------------------|---|----------|--------------------|----|-------|------------|-----------|------------------|---------|
| Client Sample II | D: Outfall 001 | | | | | Sam | ple Matrix | : Waste | Water | |
| Lab Sample ID: | 24K1892-01 | | | | | Date | Collected | l: 11/07, | /2024 9:00 | |
| City of Tomball | - South - Permit Renewal | | | [none] | | Colle | cted by: | Heath | Reinke | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| General Chem | nistry | | | | | | | | | |
| SM 4500-CN G | Amenable Cyanide | А | <10.0U | ug/L | 1 | 5.00 | 10.0 | BHK1244 | 11/11/2024 15:59 | MLB |
| SM 4500-CN ⁻ C | Total Cyanide | А | <10.0U | ug/L | 1 | 5.00 | 10.0 | BHK1244 | 11/11/2024 15:59 | MLB |
| EPA 1664A | n-Hexane Extractable Material (O&G) | А | <5.00U | mg/L | 1 | 3.32 | 5.00 | BHK0915 | 11/08/2024 08:41 | IDC |
| Microbiology | | | | | | | | | | |
| Enterolert/ASTM D6503-99 | Enterococci | А | 2.00H | MPN/100 mL | 1 | 1.00 | 1.00 | BHK0845 | 11/08/2024 16:58 | SCH |
| SM 9223 B (Colilert Quanti-Tray) | Escherichia coli (E. coli) | А | 8.60 H | MPN/100 mL | 1 | 1.00 | 1.00 | BHK0844 | 11/08/2024 16:46 | SCH |
| Field | | | | | | | | | | |
| Hach 10360 | DO Field | Ν | 7.31 | mg/L | 1 | 1.00 | 1.00 | BHK1002 | 11/07/2024 06:00 | HWR |
| Calc | Flow Field | Ν | 1.36 | MGD | 1 | 0.00 | 0.00 | BHK1002 | 11/07/2024 06:00 | HWR |
| SM 4500-H+ B | рН | А | 7.25 | pH Units @ 25 ℃ | 1 | 1.00 | 1.00 | BHK1002 | 11/07/2024 06:00 | HWR |
| SM 4500-Cl G | Total Residual Chlorine | А | 0.70 | mg/L | 1 | 0.25 | 0.25 | BHK1002 | 11/07/2024 06:00 | HWR |



Reported:

12/04/2024 10:38

| (Continued) | |
|------------------------------------------------------------------------------------------|---------|
| Cliest Councils TDOutfoll 001 Councils | |
| Client Sample 1D: Outfall 001 Sampler Sample Matrix: Waste Water | |
| Lab Sample ID: 24K1892-02 Date Collected: 11/07/2024 9:00 | |
| City of Tomball - South - Permit Renewal [none] Collected by: Heath Reinke | |
| Method Analyte * Result O Units DF SDL LRL Batch Analyzed | Analyst |
| | , |
| Semivolatile Organic Compounds by GCMS | |
| ASTM D7065 Nonylphenol N <333U ug/L 2 5.99 333 BHK0941 11/09/2024 1 | 47 cdg |
| ASTM D7065 Surrogate: n-NP-surr 59.9% S 60-140 11/09/2024 1 | 47 |
| EPA 625.1 3,3'-Dichlorobenzidine A <5.00 ug/L 1 3.87 5.00 BHK1883 11/16/2024 10 | 50 KRB |
| EPA 625.1 Benzidine A <50.0 ug/L 1 11.8 50.0 BHK1883 11/16/2024 10 | 50 KRB |
| EPA 625.1 Surrogate: 2-Fluorobiphenyl-surr 65.1% 32.2-138 11/16/2024 1 | ·50 |
| EPA 625.1 Surrogate: Nitrobenzene-d5-surr 89.6% 31.2-136 11/16/2024 1 | :50 |
| EPA 625.1 Surrogate: p-Terphenyl-d14-surr 50.4% 37.6-117 11/16/2024 1 | :50 |
| Organics by GC | |
| SM 6640 B 2,4-D A <0.700U ug/L 2 0.235 0.700 BHK1540 11/20/2024 2 | 26 KRB |
| SM 6640 B Silvex (2,4,5-TP) A <0.300 ug/L 2 0.237 0.300 BHK1540 11/20/2024 2 | 26 KRB |
| SM 6640 B Surrogate: DCAA-surr 67.0% 5 70-130 11/20/2024 2 | ·26 |
| Metals, Total | |
| EPA 200.8 Aluminum A 11.8 ug/L 1 0.167 2.50 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Antimony A <5.00 ug/L 1 0.0589 5.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Arsenic A 0.818 ug/L 1 0.0468 0.500 BHK1143 11/12/2024 14 | 16 ЈКС |
| EPA 200.8 Barium A 131 ug/L 1 0.0200 3.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Beryllium A <0.500 ug/L 1 0.0137 0.500 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Cadmium A <1.00U ug/L 1 0.00798 1.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Chromium A <3.00 ug/L 1 0.0839 3.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Copper A 4.90 ug/L 1 0.182 2.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| Calc Chromium (III) <0.00300 mg/L 1 8.39E-5 0.00300 [CALC] 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Lead A <0.500 ug/L 1 0.0120 0.500 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Nickel A <2.00U ug/L 1 0.0398 2.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Selenium A <5.00 ug/L 1 0.354 5.00 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Silver A <0.500 ug/L 1 0.00467 0.500 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Thallium A <0.500U ug/L 1 0.0617 0.500 BHK1143 11/12/2024 0 | 39 ЈКС |
| EPA 200.8 Zinc A 18.7 ug/L 1 0.207 5.00 BHK1143 11/12/2024 02 | 39 ЈКС |
| General Chemistry | |
| SM 2320 B Alkalinity as CaCO3 A 181 mg/L 1 10.0 BHK0903 11/08/2024 1 | 39 FPN |
| SM 5210 B Carbonaceous BOD (CBOD) A <2.03U, FF mg/L 13514 2.03 2.03 BHK0913 11/13/2024 1 | 13 BAK |
| SM 2510 B Conductivity A 868 umhos/cm 1 2.00 2.00 BHK0903 11/08/2024 1 | 39 FPN |
| EPA 300.0 Fluoride A 0.532 mg/L 1 0.0105 0.250 BHK0782 11/08/2024 0 | 45 AGZ |
| EPA 350.1 Ammonia as N A <0.0400U mg/L 1 0.0140 0.0400 BHK1058 11/11/2024 1 | 02 AMM |
| EPA 300.0 Nitrate as N A 11300 ug/L 1 14.2 100 BHK0782 11/08/2024 0 | 45 AGZ |

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



Reported:

12/04/2024 10:38

| Sample Results (Continued) | | | | | | | | | | | | |
|------------------------------------------|---------------------------------|-------------|----------|-------|----|--------|-------------|----------|------------------|---------|--|--|
| Client Sample ID | : Outfall 001 Sampler | (Continued) | | | | Sam | ple Matrix: | Waste | Water | | | |
| Lab Sample ID: | 24K1892-02 | | | | | Date | Collected | : 11/07, | /2024 9:00 | | | |
| City of Tomball - South - Permit Renewal | | | [none] | | | Colle | ected by: | Heath | Heath Reinke | | | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst | | |
| General Chemi | stry (Continued) | | | | | | | | | | | |
| EPA 300.0 | Nitrite as N | А | <50.0U | ug/L | 1 | 5.10 | 50.0 | BHK0782 | 11/08/2024 00:45 | AGZ | | |
| EPA 300.0 | Sulfate | А | 37.2 | mg/L | 1 | 0.0341 | 1.00 | BHK0782 | 11/08/2024 00:45 | AGZ | | |
| SM 2540 C | Residue-filterable (TDS) | А | 488 | mg/L | 1 | 10.0 | 10.0 | BHK0910 | 11/11/2024 10:38 | JRU | | |
| SM 4500-NH3 C | Total Kjeldahl Nitrogen - (TKN) | А | <1.00U | mg/L | 1 | 0.100 | 1.00 | BHK0917 | 11/11/2024 10:17 | ENR | | |
| EPA 365.1 | Total Phosphorus | А | 4.83 | mg/L | 1 | 0.117 | 0.200 | BHK1083 | 11/11/2024 17:08 | GJG | | |
| SM 2540 D | Residue-nonfilterable (TSS) | А | <1.00U | mg/L | 1 | 1.00 | 1.00 | BHK0906 | 11/11/2024 12:14 | BP | | |



Reported:

12/04/2024 10:38

| Sample Results (Continued) | | | | | | | | | | | |
|-------------------------------|---------------------------------------------------------------|---|----------|-------|---------------------------------|----------------------------|------------|---------|------------------|---------|--|
| Client Sample II | D: Outfall 001 Sampler | | | | | Sam | ple Matrix | Waste | Water | | |
| Lab Sample ID: 24K1892-02RE1 | | | | | Date Collected: 11/07/2024 9:00 | | | | | | |
| Citv of Tomball | - South - Permit Renewal | | [none] | | | Collected by: Heath Reinke | | | Reinke | | |
| | | | | [] | | | | | | | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst | |
| Semivolatile C | Organic Compounds by GCMS | | | | | | | | | | |
| EPA 625.1 | 1,2,4,5-Tetrachlorobenzene (Rerun) | А | <10.0U | ug/L | 1 | 0.0760 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 1,2,4-Trichlorobenzene (Rerun) | А | <10.0U | ug/L | 1 | 0.0943 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 1,2-Diphenylhydrazine (Rerun) | А | <20.0U | ug/L | 1 | 0.250 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy (Rerun) | A | <10.0U | ug/L | 1 | 0.129 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,4,5-Trichlorophenol (Rerun) | А | <10.0U | ug/L | 1 | 0.210 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,4,6-Trichlorophenol (Rerun) | А | <10.0U | ug/L | 1 | 0.385 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,4-Dichlorophenol (Rerun) | А | <10.0U | ug/L | 1 | 0.256 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,4-Dimethylphenol (Rerun) | А | <10.0U | ug/L | 1 | 0.294 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,4-Dinitrophenol (Rerun) | А | <50.0U | ug/L | 1 | 2.85 | 50.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,4-Dinitrotoluene (2,4-DNT) (Rerun) | A | <10.0U | ug/L | 1 | 0.0530 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2,6-Dinitrotoluene (2,6-DNT) (Rerun) | A | <10.0U | ug/L | 1 | 0.584 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2-Chloronaphthalene (Rerun) | А | <10.0U | ug/L | 1 | 0.123 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2-Chlorophenol (Rerun) | А | <10.0U | ug/L | 1 | 0.147 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph (Rerun) | A | <50.0U | ug/L | 1 | 0.511 | 50.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 2-Nitrophenol (Rerun) | А | <20.0U | ug/L | 1 | 0.218 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 3,4-Methylphenol (Rerun) | А | <10.0U | ug/L | 1 | 0.462 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 4-Bromophenyl phenyl ether (BDE-3) (Rerun) | A | <10.0U | ug/L | 1 | 0.0682 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 4-Chloro-3-methylphenol (Rerun) | A | <10.0U | ug/L | 1 | 0.218 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 4-Chlorophenyl phenylether (Rerun) | A | <10.0U | ug/L | 1 | 0.207 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | 4-Nitrophenol (Rerun) | А | <50.0U | ug/L | 1 | 2.40 | 50.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Acenaphthene (Rerun) | A | <10.0U | ug/L | 1 | 0.0776 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Acenaphthylene (Rerun) | A | <10.0U | ug/L | 1 | 0.0594 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Anthracene (Rerun) | A | <10.0U | ug/L | 1 | 0.0532 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Benzo(a)anthracene (Rerun) | А | <5.00U | ug/L | 1 | 0.0738 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Benzo(a)pyrene (Rerun) | А | <5.00U | ug/L | 1 | 0.143 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | benzo(b&k)fluoranthene (Rerun) | А | <5.00U | ug/L | 1 | 0.118 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Benzo(g,h,i)perylene (Rerun) | А | <20.0U | ug/L | 1 | 0.112 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | bis(2-Chloroethoxy)methane (Rerun) | А | <10.0U | ug/L | 1 | 0.112 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | bis(2-Chloroethyl) ether (Rerun) | А | <10.0U | ug/L | 1 | 0.184 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Bis(2-ethylhexyl)phthalate (Rerun) | А | <10.0U | ug/L | 1 | 0.500 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Butyl benzyl phthalate (Rerun) | А | <10.0U | ug/L | 1 | 0.123 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Chrysene (Rerun) | А | <5.00U | ug/L | 1 | 0.0573 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Dibenzo(a,h)anthracene (Rerun) | А | <5.00U | ug/L | 1 | 0.152 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB | |
| EPA 625.1 | Diethyl phthalate (Rerun) | А | <10.0U | ug/L | 1 | 0.150 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB | |

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


Reported:

12/04/2024 10:38

| | | | Samı | | 5 | | | | | |
|---------------|-----------------------------------------------------------------------------------|--------|-----------------|----------------------|----|--------|------------|----------|--------------------------------------|---------|
| Client Sample | ID: Outfall 001 Sampler (Contin | ued) | (0 | ontinucuj | | Sam | ple Matrix | : Waste | Water | |
| Lab Sample II | D: 24K1892-02RE1 | , | | | | Date | Collected | l: 11/07 | /2024 9:00 | |
| City of Tomba | all - South - Permit Penewal | | | [none] | | Colle | cted by: | Heath | Reinke | |
| | | | | [none] | | | | ricati | | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Semivolatile | e Organic Compounds by GCMS (| Contir | nued) | | | | | | | |
| EPA 625.1 | Dimethyl phthalate (Rerun) | А | <10.0U | ug/L | 1 | 0.0869 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Di-n-butyl phthalate (Rerun) | А | <10.0U | ug/L | 1 | 0.505 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Di-n-octyl phthalate (Rerun) | А | <10.0U | ug/L | 1 | 0.163 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Fluoranthene (Rerun) | А | <10.0U | ug/L | 1 | 0.0676 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Fluorene (Rerun) | А | <10.0U | ug/L | 1 | 0.0589 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Hexachlorobenzene (Rerun) | А | <5.00U | ug/L | 1 | 0.0629 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Hexachlorobutadiene (Rerun) | А | <10.0U | ua/L | 1 | 0.0697 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Hexachlorocyclopentadiene (Rerun) | А | <10.0U | ua/L | 1 | 0.250 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Hexachloroethane (Rerun) | А | <20.0U | ua/L | 1 | 0.0644 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625 1 | Hexachlorophene (Rerun) | Δ | <10.011 | -3/- | 1 | 0 343 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625 1 | Indeno(1,2,3-cd) pyrene (Rerun) | Δ | <5.0011 | ua/l | - | 0.126 | 5 00 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Isophorope (Rerup) | Δ | <10.000 | ug/L | 1 | 0.0853 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Nanhthalene (Rerun) | Δ | <10.00 | ug/L | 1 | 0.0742 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EDA 625 1 | | ^ | <10.00 | ug/L | 1 | 0.0742 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| | n Nitrosodiathylamina (Barun) | A A | < 20.00 | ug/L | 1 | 0.110 | 20.0 | BHK1883 | 11/20/2024 23:46 | |
| EPA 025.1 | n Nitrosodimethylamine (Return) | A | <20.00 | ug/L | 1 | 1.24 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRD |
| EPA 025.1 | n-Nitrosodimetriylamine (Rerun) | A | < 50.00 | ug/L | 1 | 1.24 | 50.0 | BUK1003 | 11/20/2024 23:46 | KKD |
| EPA 625.1 | n-Nitroso-di-n-butylamine (Rerun) | A | <20.00 | ug/L | 1 | 1.87 | 20.0 | | 11/20/2024 23:40 | KRB |
| EPA 625.1 | n-Nitrosodi-n-propylamine (Rerun) | A | <20.00 | ug/L | 1 | 0.445 | 20.0 | DUN(1002 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | n-Nitrosodiphenylamine (Rerun) | A | <20.0U | ug/L | 1 | 0.0609 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Pentachlorobenzene (Rerun) | A | <20.0U | ug/L | 1 | 0.0514 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Pentachlorophenol (Rerun) | Α | <5.00U | ug/L | 1 | 0.437 | 5.00 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Phenanthrene (Rerun) | Α | <10.0U | ug/L | 1 | 0.0816 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Phenol, Total (Rerun) | Α | <10.0U | ug/L | 1 | 0.470 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Pyrene (Rerun) | Α | <10.0U | ug/L | 1 | 0.0848 | 10.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Pyridine (Rerun) | A | <20.0U | ug/L | 1 | 4.40 | 20.0 | BHK1883 | 11/20/2024 23:46 | KRB |
| EPA 625.1 | Surrogate: 2,4,6-Tribromophenol-surr (H | Rerur | 88.0% | 33.6-139 | | | | | 11/20/2024 23:46 | |
| EPA 625.1 | Surrogate: 2-Fluorobiphenyl-surr (Rerun | リ | 87.2% | 32.2-138 | | | | | 11/20/2024 23:46 | |
| EPA 625.1 | Surrogate: 2-Fluorophenol-surr (Rerun) | , | 85.9% | 32.7-137 | | | | | 11/20/2024 23:46 | |
| EPA 625.1 | Surrogate: Nitrobenzene-d5-surr (Rerun | 7 | 0/.5% 9/ 10/ | 31.2-136 20 0 155 | | | | | 11/20/2024 23:46 | |
| EPA 625.1 | Surrogate: p-Ternhenvl-d14-surr (Rerun) Surrogate: p-Ternhenvl-d14-surr (Rerun |) | 88.3% | 20.9-155 37.6-117 | | | | | 11/20/2024 23:46 11/20/2024 23:46 | |
| General Che | mictry | / | | 55 11/ | | | | | _1, _0, _02 ; _0, 10 | |
| EPA 300.0 | Chloride (Rerun) | A | 120 | mg/L | 10 | 0.345 | 10.0 | BHK1044 | 11/09/2024 13:42 | AGZ |
| | | | | - | | | | | | |



Reported:

12/04/2024 10:38

| | | | Samı (C | ole Result | S | | | | | |
|----------------------|-------------------------|---|------------|------------|----|---------|-------------|---------|------------------|---------|
| Client Sample ID: | Outfall 001 3 Part Grab | | | | | Sam | ple Matrix | : Waste | Water | |
| Lab Sample ID: | 24K1892-03 | | | | | Date | e Collected | : 11/07 | /2024 9:30 | |
| City of Tomball - So | outh - Permit Renewal | | | [none] | | Coll | ected by: | Heath | Reinke | |
| Method A | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Metals, Total | | | | | | | | | | |
| EPA 1631E | Mercury | А | <0.00500U | ug/L | 1 | 0.00250 | 0.00500 | BHK1635 | 11/14/2024 14:43 | TBB |



Reported:

12/04/2024 10:38

| | | | Samp (Co | ole Result | S | | | | | |
|----------------|---------------------------------------------|---------|-------------|------------|----|-------|------------|---------|------------------|---------|
| Client Sample | ID: Outfall 001 3 Part Grab Com | nposite | | | | Sam | ple Matrix | : Waste | Water | |
| Lab Sample ID |): 24K1892-04 | | | | | Date | Collected | : 11/07 | /2024 9:30 | |
| City of Tombal | ll - South - Permit Renewal | | | [none] | | Colle | cted by: | Heath | Reinke | |
| | | | | | | | | | | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Volatile Orga | anic Compounds by GCMS | | | | | | | | | |
| EPA 624.1 | 1,1,1-Trichloroethane | А | <10.0U | ug/L | 1 | 0.622 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,1,2,2-Tetrachloroethane | А | <10.0U | ug/L | 1 | 0.867 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,1,2-Trichloroethane | А | <10.0U | ug/L | 1 | 0.789 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,1-Dichloroethane | А | <10.0U | ug/L | 1 | 0.967 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,1-Dichloroethylene | А | <10.0U | ug/L | 1 | 0.849 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,2-Dibromoethane (EDB, Ethylene dibromide) | А | <10.0U | ug/L | 1 | 0.706 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,2-Dichlorobenzene | А | <10.0U | ug/L | 1 | 0.881 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,2-Dichloroethane (Ethylene | А | <10.0U | ug/L | 1 | 0.870 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,2-Dichloropropane | А | <10.0U | ug/L | 1 | 0.854 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 1,3-Dichlorobenzene | А | <10.0U | ug/L | 1 | 0.717 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | (n-Dichlorobenzene) 1,4-Dichlorobenzene | A | <10.0U | ug/L | 1 | 0.641 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 2-Butanone (Methyl ethyl ketone, | А | <50.0U | ug/L | 1 | 7.38 | 50.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | 2-Chloroethyl vinyl ether | А | <10.0U | ug/L | 1 | 3.14 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Acrolein (Propenal) | А | <17.0U | ug/L | 1 | 5.68 | 17.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Acrylonitrile | А | <50.0U | ug/L | 1 | 1.60 | 50.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Benzene | А | <10.0U | ug/L | 1 | 0.604 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Bromodichloromethane | А | <10.0U | ug/L | 1 | 0.727 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Bromoform | А | <10.0U | ug/L | 1 | 0.678 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Carbon tetrachloride | А | <2.00U | ug/L | 1 | 0.500 | 2.00 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Chlorobenzene | А | <10.0U | ug/L | 1 | 0.724 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Chlorodibromomethane | А | <10.0U | ug/L | 1 | 0.802 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Chloroethane (Ethyl chloride) | А | <50.0U | ug/L | 1 | 1.30 | 50.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Chloroform | А | <10.0B, | ug/L | 1 | 0.688 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| | | | CB, U | | | | | | | |
| EPA 624.1 | cis-1,3-Dichloropropene | А | <10.0U | ug/L | 1 | 0.580 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Ethylbenzene | А | <10.0U | ug/L | 1 | 0.727 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Methyl bromide (Bromomethane) | А | <50.0U | ug/L | 1 | 1.42 | 50.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Methyl chloride (Chloromethane) | А | <50.0U | ug/L | 1 | 0.765 | 50.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Methylene chloride | А | <20.0U | ug/L | 1 | 1.60 | 20.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Tetrachloroethylene (Perchloroethylene) | А | <10.0U | ug/L | 1 | 0.703 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Toluene | А | <10.0U | ug/L | 1 | 0.649 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Total Trihalomethanes (TTHMs) | А | 18.2 | ug/L | 1 | 2.00 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |



Reported:

12/04/2024 10:38

Sample Results

(Continued)

| Client Sample ID: Outfall 001 3 Part Grab Composite (| | | (Continued) | | | Sam | ole Matrix | Waste | Water | |
|-------------------------------------------------------|---------------------------------------|-------|-------------|--------|----|-------|------------|---------|------------------|---------|
| Lab Sample ID: | 24K1892-04 | | | | | Date | Collected | : 11/07 | /2024 9:30 | |
| City of Tomball | - South - Permit Renewal | | | [none] | | Colle | cted by: | Heath | Reinke | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Volatile Organ | nic Compounds by GCMS(Conti | nued) | | | | | | | | |
| EPA 624.1 | trans-1,2-Dichloroethylene | А | <10.0U | ug/L | 1 | 0.899 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | trans-1,3-Dichloropropylene | А | <10.0U | ug/L | 1 | 0.496 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Trichloroethene (Trichloroethylene) | А | <10.0U | ug/L | 1 | 0.744 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Vinyl chloride (Chloroethene) | А | <10.0U | ug/L | 1 | 1.30 | 10.0 | BHK1021 | 11/11/2024 21:26 | DDB |
| EPA 624.1 | Surrogate: 4-Bromofluorobenzene-surr | | 106% | 70-130 | | | | | 11/11/2024 21:26 | |
| EPA 624.1 | Surrogate: 1,2-Dichloroethane-d4-surr | | 94.7% | 70-130 | | | | | 11/11/2024 21:26 | |
| EPA 624.1 | Surrogate: Dibromofluoromethane-surr | | 96.9% | 70-130 | | | | | 11/11/2024 21:26 | |
| EPA 624.1 | Surrogate: Toluene-d8-surr | | 99.4% | 70-130 | | | | | 11/11/2024 21:26 | |



Reported:

| | | | Samı (C | ole Result | S | | | | | |
|-------------------|------------------------|---|------------|------------|----|---------|-------------|---------|------------------|---------|
| Client Sample ID: | 18 Mohm DI | | | | | Sam | ple Matrix | : Waste | Water | |
| Lab Sample ID: | 24K1892-05 | | | | | Date | e Collected | : 11/07 | /2024 9:30 | |
| City of Tomball - | South - Permit Renewal | | | [none] | | Colle | ected by: | Heath | Reinke | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Metals, Total | | | | | | | | | | |
| EPA 1631E | Mercury | А | <0.00500U | ug/L | 1 | 0.00250 | 0.00500 | BHK1635 | 11/14/2024 14:38 | ТВВ |



Reported: 12/04/2024 10:38

| | | | Samp (Co | le Result | S | | | | | |
|----------------|-------------------------------------|---|-----------------|-----------|----|--------|-------------|----------|------------------|--------|
| Client Sample | ID: Outfall 001 Sampler | | | | | Sam | nple Matrix | : Waste | Water | |
| Lab Sample ID | 24K2919-01 | | | | | Date | e Collected | l: 11/14 | /2024 5:00 | |
| City of Tombal | I - South- Permit Renewal Recollect | | | [none] | | Coll | ected by: | Ferna | ndo Alvarez | |
| Method | Analyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analys |
| Organics by | GC | | | | | | | | | |
| EPA 1657 | Azinphos-methyl (Guthion) | А | <0.0333U | ug/L | 1 | 0.0333 | 0.100 | BHK2245 | 11/20/2024 00:25 | cdg |
| EPA 1657 | Chlorpyrifos | А | <0.0257U | ug/L | 1 | 0.0257 | 0.0500 | BHK2245 | 11/20/2024 00:25 | cdg |
| EPA 1657 | Demeton | А | <0.0129C+, U | ug/L | 1 | 0.0129 | 0.200 | BHK2245 | 11/20/2024 00:25 | cdg |
| EPA 1657 | Diazinon | А | <0.0322U | ug/L | 1 | 0.0322 | 0.500 | BHK2245 | 11/20/2024 00:25 | cdg |
| EPA 1657 | Malathion | А | <0.0133U | ug/L | 1 | 0.0133 | 0.100 | BHK2245 | 11/20/2024 00:25 | cdg |
| EPA 1657 | Parathion, ethyl | А | <0.0207U | ug/L | 1 | 0.0207 | 0.100 | BHK2245 | 11/20/2024 00:25 | cdg |
| EPA 1657 | Surrogate: Tributyl Phosphate-surr | | 89.3% | 40-120 | | | | | 11/20/2024 00:25 | |
| EPA 1657 | Surrogate: Triphenyl Phosphate-surr | | 69.5% | 40-120 | | | | | 11/20/2024 00:25 | |
| Metals, Disso | blved | | | | | | | | | |
| SM 3500-Cr B | Chromium (VI) | А | <3.00U | ug/L | 1 | | 3.00 | BHK3340 | 11/26/2024 15:47 | JVG |



Hach 10360

DO Field

BHK1966 11/14/2024 08:25

Reported: 12/04/2024 10:38

FCA

| | | | Samp (Co | le Result | S | | | | | |
|----------------------|-------------------------------|---|-------------|-----------|----|-------|-------------|-------|--------------|---------|
| Client Sample ID: | Outfall 001 | | | | | Samp | ole Matrix: | Wast | e Water | |
| Lab Sample ID: | 24K2919-02 | | | | | Date | Collected: | 11/1 | 4/2024 8:25 | |
| City of Tomball - So | uth- Permit Renewal Recollect | | | [none] | | Colle | cted by: | Ferna | ando Alvarez | |
| Method A | nalyte | * | Result Q | Units | DF | SDL | LRL | Batch | Analyzed | Analyst |
| Field | | | | | | | | | | |

mg/L

1

1.00

1.00

Ν

7.26



Reported:

12/04/2024 10:38

Quality Control

Volatile Organic Compounds by GCMS

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|-----------------------------------------|--------|------|-----------|-------|------------|--------------|--------------|---------|-----|-------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1021 - EPA 624 | | | | | | | | | | |
| Blank (BHK1021-BLK1) | | | | | Prepared & | Analvzed: 11 | /11/2024 | | | |
| 1.1.1-Trichloroethane | ~10.0 | п | 10.0 | ua/l | | , | | | | |
| 1.1.2.2-Tetrachloroethane | <10.0 | 11 | 10.0 | ua/l | | | | | | |
| 1 1 2-Trichloroethane | <10.0 | | 10.0 | ua/l | | | | | | |
| 1 1-Dichloroethane | <10.0 | 0 | 10.0 | ug/L | | | | | | |
| 1 1-Dichloroethylene | <10.0 | 0 | 10.0 | ug/L | | | | | | |
| 1 2-Dibromoethane (EDB Ethylene | <10.0 | 0 | 10.0 | ug/L | | | | | | |
| dibromide) | <10.0 | 0 | 10.0 | ug/L | | | | | | |
| 1.2-Dichlorobenzene | <10.0 | п | 10.0 | ua/L | | | | | | |
| (o-Dichlorobenzene) | <10.0 | 0 | | 51 | | | | | | |
| 1,2-Dichloroethane (Ethylene | <10.0 | U | 10.0 | ug/L | | | | | | |
| dichloride) | | | | | | | | | | |
| 1,2-Dichloropropane | <10.0 | U | 10.0 | ug/L | | | | | | |
| 1,3-Dichlorobenzene | <10.0 | U | 10.0 | ug/L | | | | | | |
| (m-Dichlorobenzene) | | | | | | | | | | |
| 1,4-Dichlorobenzene | <10.0 | U | 10.0 | ug/L | | | | | | |
| (p-Dichlorobenzene) | | | | | | | | | | |
| 2-Butanone (Methyl ethyl ketone, MEK) | <50.0 | U | 50.0 | ug/L | | | | | | |
| 2-Chloroethyl vinyl ether | <10.0 | U | 10.0 | ug/L | | | | | | |
| Acrolein (Propenal) | <17.0 | U | 17.0 | ug/L | | | | | | |
| Acrylonitrile | <50.0 | U | 50.0 | ug/L | | | | | | |
| Benzene | <10.0 | U | 10.0 | ug/L | | | | | | |
| Bromodichloromethane | <10.0 | U | 10.0 | ug/L | | | | | | |
| Bromoform | <10.0 | U | 10.0 | ug/L | | | | | | |
| Carbon tetrachloride | <2.00 | U | 2.00 | ug/L | | | | | | |
| Chlorobenzene | <10.0 | U | 10.0 | ug/L | | | | | | |
| Chlorodibromomethane | <10.0 | U | 10.0 | ug/L | | | | | | |
| Chloroethane (Ethyl chloride) | <50.0 | U | 50.0 | ug/L | | | | | | |
| Chloroform | <10.0 | U | 10.0 | ug/L | | | | | | |
| cis-1,3-Dichloropropene | <10.0 | U | 10.0 | ug/L | | | | | | |
| Ethylbenzene | <10.0 | U | 10.0 | ug/L | | | | | | |
| Methyl bromide (Bromomethane) | <50.0 | U | 50.0 | ug/L | | | | | | |
| Methyl chloride (Chloromethane) | <50.0 | U | 50.0 | ug/L | | | | | | |
| Methylene chloride (Dichloromethane) | <20.0 | U | 20.0 | ug/L | | | | | | |
| Tetrachloroethylene (Perchloroethylene) | <10.0 | U | 10.0 | ug/L | | | | | | |
| Toluene | <10.0 | U | 10.0 | ug/L | | | | | | |
| Total Trihalomethanes (TTHMs) | <10.0 | U | 10.0 | ug/L | | | | | | |
| trans-1,2-Dichloroethylene | <10.0 | U | 10.0 | ug/L | | | | | | |
| trans-1,3-Dichloropropylene | <10.0 | U | 10.0 | ug/L | | | | | | |
| Trichloroethene (Trichloroethylene) | <10.0 | U | 10.0 | ua/L | | | | | | |
| Vinyl chloride (Chloroethene) | <10.0 | U U | 10.0 | ua/L | | | | | | |
| Currenter 4 Promofiliarit | 10.0 | | | · | | | 101 | 70 1 20 | | |
| Surrogate: 4-Bromotiuorobenzene-surr | | | 50.7 | ug/L | 50.0 | | 101 | 70-130 | | |
| Surrogate: 1,2-Dicnioroethane-d4-surr | | | 4/.1 | ug/L | 50.0 | | 94.1 00.c | /0-130 | | |
| Surrogate: Dibromotiuoromethane-surr | | | 49.3 | ug/L | 50.0 | | 98.6 | 70-130 | | |
| Surrogate: Toluene-a8-surr | | | 48.9 | ug/L | 50.0 | | 97.8 | /0-130 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|-----------------------------------------|-------------|-----------|----------------|--------------|--------------|----------|--------|-----|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1021 - EPA 624 (Cor | ntinued) | | | | | | | | |
| LCS (BHK1021-BS1) | , | | | Prepared & | Analvzed: 11 | /11/2024 | | | |
| 1.1.1-Trichloroethane | 47 4 | 10.0 | ua/l | 50.0 | , | 84.9 | 70-130 | | |
| 1.1.2.2-Tetrachloroethane | 42.4 | 10.0 | ug/l | 50.0 | | 84.9 | 60-140 | | |
| 1.1.2-Trichloroethane | 43.4 | 10.0 | ug/L | 50.0 | | 86.7 | 70-130 | | |
| 1 1-Dichloroethane | 44.0 | 10.0 | ug/l | 50.0 | | 88.0 | 70-130 | | |
| 1 1-Dichloroethylene | 43.2 | 10.0 | ug/l | 50.0 | | 86.4 | 50-150 | | |
| 1 2-Dibromoethane (EDB Ethylene | 47.4 | 10.0 | ug/L | 50.0 | | 84.8 | 70-130 | | |
| dibromide) | 12.1 | 1010 | ~ <u>9</u> / = | 0010 | | 0.110 | /0 100 | | |
| 1,2-Dichlorobenzene | 43.6 | 10.0 | ug/L | 50.0 | | 87.1 | 65-135 | | |
| (o-Dichlorobenzene) | | | 0. | | | | | | |
| 1,2-Dichloroethane (Ethylene | 42.9 | 10.0 | ug/L | 50.0 | | 85.8 | 70-130 | | |
| dichloride) | | | | | | | | | |
| 1,2-Dichloropropane | 43.1 | 10.0 | ug/L | 50.0 | | 86.1 | 35-165 | | |
| 1,3-Dichlorobenzene | 43.7 | 10.0 | ug/L | 50.0 | | 87.5 | 70-130 | | |
| (m-Dichlorobenzene) | | | | | | | | | |
| 1,4-Dichlorobenzene | 43.2 | 10.0 | ug/L | 50.0 | | 86.4 | 65-135 | | |
| (p-Dichlorobenzene) | | | | | | | | | |
| 2-Butanone (Methyl ethyl ketone, MEK) | 462 | 50.0 | ug/L | 500 | | 92.5 | 70-130 | | |
| 2-Chloroethyl vinyl ether | 44.0 | 10.0 | ug/L | 50.0 | | 87.9 | 0-225 | | |
| Acrolein (Propenal) | 238 | 50.0 | ug/L | 250 | | 95.2 | 60-140 | | |
| Acrylonitrile | 47.1 U | 50.0 | ug/L | 50.0 | | 94.2 | 60-140 | | |
| Benzene | 42.8 | 10.0 | ug/L | 50.0 | | 85.7 | 65-135 | | |
| Bromodichloromethane | 36.9 | 10.0 | ug/L | 50.0 | | 73.8 | 65-135 | | |
| Bromoform | 41.3 | 10.0 | ug/L | 50.0 | | 82.6 | 70-130 | | |
| Carbon tetrachloride | 43.3 | 2.00 | ug/L | 50.0 | | 86.6 | 70-130 | | |
| Chlorobenzene | 42.4 | 10.0 | ug/L | 50.0 | | 84.7 | 65-135 | | |
| Chlorodibromomethane | 39.4 | 10.0 | ug/L | 50.0 | | 78.8 | 70-135 | | |
| Chloroethane (Ethyl chloride) | 43.1 U | 50.0 | ug/L | 50.0 | | 86.3 | 40-160 | | |
| Chloroform | 39.4 | 10.0 | ug/L | 50.0 | | 78.7 | 70-135 | | |
| cis-1,3-Dichloropropene | 43.1 | 10.0 | ug/L | 50.0 | | 86.1 | 25-175 | | |
| Ethylbenzene | 43.5 | 10.0 | ug/L | 50.0 | | 86.9 | 60-140 | | |
| Methyl bromide (Bromomethane) | 43.2 U | 50.0 | ug/L | 50.0 | | 86.4 | 15-185 | | |
| Methyl chloride (Chloromethane) | 42.1 U | 50.0 | ug/L | 50.0 | | 84.2 | 0-205 | | |
| Methylene chloride (Dichloromethane) | 41.4 | 20.0 | ug/L | 50.0 | | 82.9 | 60-140 | | |
| Tetrachloroethylene (Perchloroethylene) | 44.1 | 10.0 | ug/L | 50.0 | | 88.2 | 70-130 | | |
| Toluene | 42.6 | 10.0 | ug/L | 50.0 | | 85.3 | 70-130 | | |
| Total Trihalomethanes (TTHMs) | 157 | 10.0 | ug/L | 200 | | 78.5 | 70-130 | | |
| trans-1,2-Dichloroethylene | 43.2 | 10.0 | ug/L | 50.0 | | 86.3 | 70-130 | | |
| trans-1,3-Dichloropropylene | 43.1 | 10.0 | ug/L | 50.0 | | 86.3 | 50-150 | | |
| Trichloroethene (Trichloroethylene) | 43.6 | 10.0 | ug/L | 50.0 | | 87.2 | 65-135 | | |
| Vinyl chloride (Chloroethene) | 41.9 | 10.0 | ug/L | 50.0 | | 83.8 | 5-195 | | |
| Surrogate: 4-Bromofluorobenzene-surr | | 50.2 | | 50 0 | | 100 | 70-130 | | |
| Surrogate: 1.2-Dichloroethane-d4-surr | | 50.2 | ug/L | 50.0 50 N | | 100 | 70-130 | | |
| Surrogate: Dibromofluoromethane-surr | | 49.2 | ug/L | 50.0 | | 98.5 | 70-130 | | |
| Surrogate: Toluene-d8-surr | | 50.2 | ug/L ug/l | 50.0 50 N | | 100 | 70-130 | | |
| | | 50.2 | / - | 2010 | | 200 | 150 | | |



Reported: 12/04/2024 10:38

Quality Control (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|-------|------------|--------------|--------------|------------------|--------------|----------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Ratch: RHK1021 - FPA 624 (Cor | ntinued) | | | | | | | | |
| $\frac{1}{1} \frac{1}{1} \frac{1}$ | limacaj | | | Prenared & | Analyzed: 11 | /11/2024 | | | |
| 1 1 1-Trichloroethane | 40 E | 10.0 | ua/l | 50.0 | | 85.0 | 70-130 | 0 137 | 36 |
| 1 1 2 2-Totrachloroothano | 42.5 | 10.0 | ug/L | 50.0 | | 0J.0 91.6 | 60-140 | 3.07 | 50 61 |
| 1 1 2-Trichloroethane | 40.0 | 10.0 | ug/L | 50.0 | | 81 3 | 70-130 | 6.47 | 45 |
| 1 1-Dichloroothano | 40.7 | 10.0 | ug/L | 50.0 | | 01.J 94 D | 70-130 | 1 19 | 40 |
| 1,1 Dichloroethalle | 42.1 | 10.0 | ug/L | 50.0 | | 04.4 | 70-130 E0 1E0 | טד.ד דכ ר | UT 22 |
| 1,1-Dichloroethylene | 42.2 | 10.0 | ug/L | 50.0 | | 04.4 | 70 120 | 2.37 | 32 |
| dibromide) | 41.1 | 10.0 | ug/L | 50.0 | | 82.2 | /0-130 | 3.12 | |
| 1,2-Dichlorobenzene | 43.2 | 10.0 | ug/L | 50.0 | | 86.4 | 65-135 | 0.842 | 57 |
| (o-Dichlorobenzene) | | 10.0 | | 50.0 | | 02.0 | 70 4 20 | 2.54 | 40 |
| 1,2-Dichloroethane (Ethylene | 41.4 | 10.0 | ug/L | 50.0 | | 82.9 | /0-130 | 3.51 | 49 |
| dichloride) | | 10.0 | | 50.0 | | 07.1 | 25 165 | 2.54 | |
| 1,2-Dichloropropane | 41.6 | 10.0 | ug/L | 50.0 | | 83.1 | 35-165 | 3.54 | 55 |
| 1,3-Dichlorobenzene | 43.1 | 10.0 | ug/L | 50.0 | | 86.2 | /0-130 | 1.47 | 43 |
| (III-Dichlorobonzono | 42 5 | 10.0 | ua/l | 50.0 | | 86.0 | 65-125 | 0 540 | 57 |
| (n-Dichlorobenzene) | 43.5 | 10.0 | ug/L | 50.0 | | 00.9 | 05-155 | 0.540 | 57 |
| 2-Butanone (Methyl ethyl ketone MFK) | 139 | 50.0 | ua/l | 500 | | 87 7 | 70-130 | 5 32 | 30 |
| 2-Chloroethyl vinyl ether | 41.6 | 10.0 | ug/L | 50.0 | | 83.2 | 0-225 | 5 55 | 71 |
| Acrolein (Propenal) | 220 | 50.0 | ug/L | 250 | | 95.6 | 60-140 | 0 431 | 60 |
| Acrylonitrile | | 50.0 | ug/L | 50.0 | | 92.7 | 60-140 | 1 55 | 60 |
| Benzene | 40.4 0 | 10.0 | ug/L | 50.0 | | 83.8 | 65-135 | 2 23 | 61 |
| Bromodichloromethane | 41.9 | 10.0 | ug/L | 50.0 | | 69.7 | 65-135 | 5.60 | 56 |
| Bromoform | 34.8 | 10.0 | ug/L | 50.0 | | 78.3 | 70-130 | 5.05 | 47 |
| Carbon totrachlorido | 39.2 42 F | 2.00 | ug/L | 50.0 | | 70.J 95 1 | 70-130 | 1.74 | 41 |
| Chlorobenzene | 42.5 | 2.00 | ug/L | 50.0 | | 82.0 | 65-135 | 2.18 | 53 |
| Chlorodibromomothano | 41.5 | 10.0 | ug/L | 50.0 | | 76.2 | 70-135 | 2.10 | 50 |
| Chloroothana (Ethyl chlorida) | 38.1 | 10.0 | ug/L | 50.0 | | 70.Z | 10-155 | 4.02 | |
| | 41.1 U | 50.0 | ug/L | 50.0 | | 0Z.1 72.4 | 70 125 | 9.30 | 70 |
| | 36.2 | 10.0 | ug/L | 50.0 | | 72.4 | 70-135 | 0.39 | 54 |
| CIS-1,3-Dichloropropene | 42.1 | 10.0 | ug/L | 50.0 | | 84.Z | 25-175 | 2.25 | 58 |
| Euryidenzene Mathud byemida (Bromemathane) | 41.8 | 10.0 | ug/L | 50.0 | | 01.2 | 15 105 | 5.85 | 63 |
| Methyl bromide (Bromomethane) | 40.7 U | 50.0 | ug/L | 50.0 | | 81.3 | 15-185 | 6.08 | 61 |
| Methyl chloride (Chloromethane) | 41.4 U | 50.0 | ug/L | 50.0 | | 82.8 | 0-205 | 1.67 | 60 |
| Metnylene chloride (Dichloromethane) | 39.7 | 20.0 | ug/L | 50.0 | | 79.4 06.6 | 50-140 | 4.28 | 28 |
| Tetrachioroethylene (Perchioroethylene) | 43.3 | 10.0 | ug/L | 50.0 | | 86.6 | 70-130 | 1.81 | 39 |
| Toluene | 41.7 | 10.0 | ug/L | 50.0 | | 83.4 | 70-130 | 2.22 | 41 |
| Iotal Irinalomethanes (IIHMS) | 148 | 10.0 | ug/L | 200 | | /4.1 | /0-130 | 5.67 | 30 |
| trans-1,2-Dichloroethylene | 42.3 | 10.0 | ug/L | 50.0 | | 84.5 | /0-130 | 2.14 | 45 |
| trans-1,3-Dichloropropylene | 41.4 | 10.0 | ug/L | 50.0 | | 82.9 | 50-150 | 3.99 | 86 |
| Trichloroethene (Trichloroethylene) | 42.3 | 10.0 | ug/L | 50.0 | | 84.6 | 65-135 | 2.98 | 48 |
| Vinyi chioride (Chloroethene) | 43.3 | 10.0 | ug/L | 50.0 | | 86.6 | 5-195 | 3.31 | 66 |
| Surrogate: 4-Bromofluorobenzene-surr | | 51.3 | ug/L | 50.0 | | 103 | 70-130 | | |
| Surrogate: 1,2-Dichloroethane-d4-surr | | 50.8 | ug/L | 50.0 | | 102 | 70-130 | | |
| Surrogate: Dibromofluoromethane-surr | | 50.6 | ug/L | 50.0 | | 101 | 70-130 | | |
| Surrogate: Toluene-d8-surr | | 49.6 | ug/L | 50.0 | | 99.2 | 70-130 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|------------------------------------------------|---------|-------------|-----------|-------|------------|---------------|---------------|------------------|-----|-------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1021 - FPA 624 (Con | tinued) | | | | | | | | | |
| Matrix Spike (BHK1021-MS1) | cinacay | Source: 24 | K1892-04 | | Prenared & | Analyzed: 11 | /11/2024 | | | |
| 1 1 1-Trichloroethane | 20 7 | Jour cer 21 | 10.0 | ua/l | 50.0 | <10.0 | 77 4 | 52-162 | | |
| 1 1 2 2-Tetrachloroethane | 35.8 | | 10.0 | ug/L | 50.0 | <10.0 | 71.6 | 46-157 | | |
| 1 1 2-Trichloroethane | 36.7 | | 10.0 | ug/L | 50.0 | <10.0 | 73.4 | 52-150 | | |
| 1 1-Dichloroethane | 30.7 | | 10.0 | ug/L | 50.0 | <10.0 | 77 5 | 59-155 | | |
| 1 1-Dichloroethylene | 30.7 | | 10.0 | ug/L | 50.0 | <10.0 | 79.4 | 0-234 | | |
| 1 2-Dibromoethane (FDB_Ethylene | 36.0 | | 10.0 | ug/L | 50.0 | <10.0 | 72.0 | 70-130 | | |
| dibromide) | 50.0 | | 1010 | ag/ 2 | 5010 | 12010 | / 210 | /0 100 | | |
| 1,2-Dichlorobenzene | 38.0 | | 10.0 | ug/L | 50.0 | <10.0 | 76.0 | 18-190 | | |
| (o-Dichlorobenzene) | | | | | | | | | | |
| 1,2-Dichloroethane (Ethylene | 36.8 | | 10.0 | ug/L | 50.0 | <10.0 | 73.6 | 49-155 | | |
| dichloride) | | | | | | | | | | |
| 1,2-Dichloropropane | 37.7 | | 10.0 | ug/L | 50.0 | <10.0 | 75.3 | 0-210 | | |
| 1,3-Dichlorobenzene | 38.7 | | 10.0 | ug/L | 50.0 | <10.0 | 77.4 | 59-156 | | |
| (m-Dichlorobenzene) | | | | | | | | | | |
| 1,4-Dichlorobenzene | 38.9 | | 10.0 | ug/L | 50.0 | <10.0 | 77.7 | 18-190 | | |
| (p-Dichlorobenzene) | | | 50.0 | | 500 | -50.0 | 70.0 | 70 120 | | |
| 2-Bulanone (Methyr ethyr kelone, MEK) | 394 | | 50.0 | ug/L | 500 | < 50.0 | /8.8 | /0-130 | | |
| 2-Chloroethyl vlnyl ether | 46.5 | | 10.0 | ug/L | 50.0 | <10.0 | 93.0 | 0-305 | | |
| Acrolein (Propenal) | 114 | | 50.0 | ug/L | 250 | <50.0 | 45.8 | 40-160 | | |
| Acrylonitrile | 39.0 | U | 50.0 | ug/L | 50.0 | < 50.0 | 78.0 | 40-100 | | |
| Benzene | 38.1 | | 10.0 | ug/L | 50.0 | <10.0 | 70.1 | 37-151 | | |
| Bromodichiorometridhe | 48.2 | | 10.0 | ug/L | 50.0 | 9.04 | 78.2 | 35-155 | | |
| Bromoiorm Carbon totrachlarida | 34.8 | | 10.0 | ug/L | 50.0 | <10.0 | 09.0 | 45-109 | | |
| | 39.6 | | 2.00 | ug/L | 50.0 | <2.00 | 79.3 75 5 | 70-140 | | |
| Chlorodenzene | 3/./ | | 10.0 | ug/L | 50.0 | <10.0 | / ɔ.ɔ ⁊ɔ c | 57-100 | | |
| Chlorodibromometriane Chlorodibromometriane | 38.5 | | 10.0 | ug/L | 50.0 | 1.71 | /3.0 | 14 220 | | |
| | 48.9 | U | 50.0 | ug/L | 50.0 | < 50.0 | 97.8 | 14-230 | | |
| | 48.8 | | 10.0 | ug/L | 50.0 | 7.49 | 82.7 | 51-138 | | |
| CIS-1,3-Dichioropropene | 3/./ | | 10.0 | ug/L | 50.0 | <10.0 | 75.4 | 0-227 | | |
| Euryide (Promomothana) | 38.4 | | 10.0 | ug/L | 50.0 | <10.0 | 70.0 | 0 242 | | |
| Methyl chloride (Chloromothane) | 46.5 | U | 50.0 | ug/L | 50.0 | < 50.0 | 93.1 | 0-242 | | |
| Methylene elleride (Diebleremethene) | 48.7 | U | 50.0 | ug/L | 50.0 | < 50.0 | 97.4 | 0-2/3 | | |
| | 35.9 | | 20.0 | ug/L | 50.0 | <20.0 | 71.0 | 64 149 | | |
| | 39.4 | | 10.0 | ug/L | 50.0 | <10.0 | 76.9 | 47 150 | | |
| Total Tribalomothanos (TTHMs) | 38.1 | | 10.0 | ug/L | 200 | <10.0 | 76.0 | 70-130 | | |
| trans-1 2-Dichloroothylono | 1/0 | | 10.0 | ug/L | 50.0 | 10.2 <10.0 | 70.0 | 70-150 54-156 | | |
| trans-1,2-Dichloropropylopo | 39.8 | | 10.0 | ug/L | 50.0 | <10.0 | 79.7 | 17-192 | | |
| Trichloroethene (Trichloroethylene) | 37.1 | | 10.0 | ug/L | 50.0 | <10.0 | 77.2 | 70-157 | | |
| Vinyl chloride (Chloroethene) | 58.0 | | 10.0 | ug/L | 50.0 | <10.0 | 103 | 0-251 | | |
| | 51.4 | | 10.0 | ug/L | 50.0 | ~10.0 | 102 | U-2J1 | | |
| Surrogate: 4-Bromofluorobenzene-surr | | | 50.4 | ug/L | 50.0 | | 101 | 70-130 | | |
| Surrogate: 1,2-Dichloroethane-d4-surr | | | 51.1 | ug/L | 50.0 | | 102 | 70-130 | | |
| Surrogate: Dibromofluoromethane-surr | | | 50.8 | ug/L | 50.0 | | 102 | 70-130 | | |
| Surrogate: Toluene-d8-surr | | | 50.7 | ug/L | 50.0 | | 101 | 70-130 | | |



Reported: 12/04/2024 10:38

Quality Control (Continued)

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|-----------------------------------------|---------------|-------------|-----------|--------------|------------|---------------|----------|--------|-------|-----------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1021 - EPA 624 (Continu | ed) | | | | | | | | | |
| Matrix Spike Dup (BHK1021-MSD1) | - / | Source: 24k | (1892-04 | | Prepared & | Analyzed: 11/ | /11/2024 | | | |
| 1,1,1-Trichloroethane | 40 7 | | 10.0 | ug/L | 50.0 | <10.0 | 81.3 | 52-162 | 5.00 | 36 |
| 1,1,2,2-Tetrachloroethane | 37 5 | | 10.0 | ua/L | 50.0 | <10.0 | 75.0 | 46-157 | 4.58 | 61 |
| 1,1,2-Trichloroethane | 38.2 | | 10.0 | ug/L | 50.0 | <10.0 | 76.4 | 52-150 | 4.01 | 45 |
| 1,1-Dichloroethane | 40.1 | | 10.0 | ug/L | 50.0 | <10.0 | 80.2 | 59-155 | 3.47 | 40 |
| 1,1-Dichloroethylene | 42.2 | | 10.0 | ua/L | 50.0 | <10.0 | 84.3 | 0-234 | 6.04 | 32 |
| 1,2-Dibromoethane (EDB, Ethvlene | 37.8 | | 10.0 | ug/L | 50.0 | <10.0 | 75.7 | 70-130 | 4.96 | 30 |
| dibromide) | 07.0 | | | <i></i> | | | | | | |
| 1,2-Dichlorobenzene | 38.3 | | 10.0 | ug/L | 50.0 | <10.0 | 76.7 | 18-190 | 0.874 | 57 |
| (o-Dichlorobenzene) | | | | | | | | | | |
| 1,2-Dichloroethane (Ethylene | 38.4 | | 10.0 | ug/L | 50.0 | <10.0 | 76.9 | 49-155 | 4.28 | 49 |
| dichloride) | | | | | | | | | | |
| 1,2-Dichloropropane | 39.8 | | 10.0 | ug/L | 50.0 | <10.0 | 79.7 | 0-210 | 5.59 | 55 |
| 1,3-Dichlorobenzene | 39.2 | | 10.0 | ug/L | 50.0 | <10.0 | 78.4 | 59-156 | 1.31 | 43 |
| (m-Dichlorobenzene) | | | 10.0 | | F0 0 | -10.0 | 70.2 | 10 100 | 0 571 | F7 |
| 1,4-Dichlorobenzene) | 39.1 | | 10.0 | ug/L | 50.0 | <10.0 | /8.2 | 19-190 | 0.5/1 | 5/ |
| 2-Butanone (Methyl ethyl ketone MFK) | /17 | | 50.0 | υα/Ι | 500 | <50.0 | 82 3 | 70-130 | 4,38 | 30 |
| 2-Chloroethyl vinvl ether | ר דו <i>ע</i> | | 10.0 | ua/I | 50.0 | <10.0 | 94 5 | 0-305 | 1.58 | 71 |
| Acrolein (Propenal) | 97.2 | 11 | 50.0 | ua/l | 250 | <50.0 | 39.8 | 40-160 | 13.9 | 60 |
| Acrylonitrile | 29.5 40 0 | 11 | 50.0 | ug/L | 50.0 | <50.0 | 81.8 | 40-160 | 4.77 | 60 |
| Benzene | 40.9 | 0 | 10.0 | ug/L | 50.0 | <10.0 | 80.0 | 37-151 | 4 94 | 61 |
| Bromodichloromethane | 50.2 | | 10.0 | ug/L ug/l | 50.0 | 9.04 | 82.5 | 35-155 | 4.30 | 56 |
| Bromoform | 36 5 | | 10.0 | ua/l | 50.0 | <10.0 | 73.1 | 45-169 | 4.93 | 42 |
| Carbon tetrachloride | 41 A | | 2.00 | ua/L | 50.0 | <2,00 | 82.7 | 70-140 | 4.28 | 41 |
| Chlorobenzene | 39.1 | | 10.0 | ua/L | 50.0 | <10.0 | 78.2 | 37-160 | 3.48 | 53 |
| Chlorodibromomethane | 39.0 | | 10.0 | ua/L | 50.0 | 1.71 | 76.4 | 53-149 | 3.65 | 50 |
| Chloroethane (Ethyl chloride) | 50.7 | | 50.0 | ua/L | 50.0 | <50.0 | 101 | 14-230 | 3.51 | 78 |
| Chloroform | 50.7 | | 10.0 | ua/L | 50.0 | 7.49 | 86.4 | 51-138 | 3.74 | 54 |
| cis-1,3-Dichloropropene | 39.5 | | 10.0 | ua/L | 50.0 | <10.0 | 79.1 | 0-227 | 4.69 | 58 |
| Ethylbenzene | 40 1 | | 10.0 | ug/L | 50.0 | <10.0 | 80.2 | 37-162 | 4.31 | 63 |
| Methyl bromide (Bromomethane) | 47.4 | U | 50.0 | ug/L | 50.0 | <50.0 | 94.7 | 0-242 | 1.76 | 61 |
| Methyl chloride (Chloromethane) | 49.1 | U | 50.0 | ug/L | 50.0 | <50.0 | 98.2 | 0-273 | 0.864 | 60 |
| Methylene chloride (Dichloromethane) | 38.3 | - | 20.0 | ug/L | 50.0 | <20.0 | 76.6 | 0-221 | 6.53 | 28 |
| Tetrachloroethylene (Perchloroethylene) | 42.0 | | 10.0 | ug/L | 50.0 | <10.0 | 83.9 | 64-148 | 6.17 | 39 |
| Toluene | 39.8 | | 10.0 | ug/L | 50.0 | <10.0 | 79.7 | 47-150 | 4.56 | 41 |
| Total Trihalomethanes (TTHMs) | 177 | | 10.0 | ug/L | 200 | 18.2 | 79.6 | 70-130 | 4.12 | 30 |
| trans-1,2-Dichloroethylene | 41.0 | | 10.0 | ug/L | 50.0 | <10.0 | 81.9 | 54-156 | 2.77 | 45 |
| trans-1,3-Dichloropropylene | 38.7 | | 10.0 | ug/L | 50.0 | <10.0 | 77.4 | 17-183 | 4.21 | 86 |
| Trichloroethene (Trichloroethylene) | 40.9 | | 10.0 | ug/L | 50.0 | <10.0 | 81.7 | 70-157 | 5.63 | 48 |
| Vinyl chloride (Chloroethene) | 49.3 | | 10.0 | ug/L | 50.0 | <10.0 | 98.5 | 0-251 | 4.23 | 66 |
| Surrogate: 4-Bromofluorobenzene-surr | | | 49.5 | ug/L | 50.0 | | 99.1 | 70-130 | | |
| Surrogate: 1,2-Dichloroethane-d4-surr | | | 49.7 | ug/L | 50.0 | | 99.4 | 70-130 | | |
| Surrogate: Dibromofluoromethane-surr | | | 49.0 | ug/L | 50.0 | | 97.9 | 70-130 | | |
| Surrogate: Toluene-d8-surr | | | 48.6 | ug/L | 50.0 | | 97.2 | 70-130 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

Semivolatile Organic Compounds by GCMS

| | | Reporting | | Spike | Source | | %REC | | RPD |
|---------------------------------|-------------|------------|-------|---------------|---------------|--------------|--------|------|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK0941 - SW-3511 | | | | | | | | | |
| Blank (BHK0941-BLK1) | | | Ρ | repared: 11/8 | /2024 Analyze | ed: 11/9/202 | 4 | | |
| Nonylphenol | <333 U | 333 | ug/L | | | | | | |
| Surrogate: n-NP-surr | | 6.36 | ug/L | 8.00 | | 79.5 | 60-140 | | |
| LCS (BHK0941-BS1) | | | P | repared: 11/8 | /2024 Analyze | ed: 11/9/202 | 4 | | |
| Nonylphenol | 27.3 U | 333 | ug/L | 39.9 | | 68.3 | 56-112 | | |
| Surrogate: n-NP-surr | | 5.63 | ug/L | 7.98 | | 70.6 | 60-140 | | |
| LCS Dup (BHK0941-BSD1) | | | Ρ | repared: 11/8 | /2024 Analyze | ed: 11/9/202 | 4 | | |
| Nonylphenol | 28.7 U | 333 | ug/L | 39.9 | | 71.8 | 56-112 | 5.02 | 22 |
| Surrogate: n-NP-surr | | 6.25 | ug/L | 7.98 | | 78.3 | 60-140 | | |
| Matrix Spike (BHK0941-MS1) | Source: | 24K1892-02 | Ρ | repared: 11/8 | /2024 Analyze | ed: 11/9/202 | 4 | | |
| Nonylphenol | 27.4 U | 333 | ug/L | 40.0 | <333 | 68.6 | 56-112 | | |
| Surrogate: n-NP-surr | | 5.57 | ug/L | 8.00 | | 69.6 | 60-140 | | |
| Matrix Spike Dup (BHK0941-MSD1) | Source: | 24K1892-02 | Ρ | repared: 11/8 | /2024 Analyze | ed: 11/9/202 | 4 | | |
| Nonylphenol | 32.3 U | 333 | ug/L | 40.0 | <333 | 80.7 | 56-112 | 16.3 | 22 |
| Surrogate: n-NP-surr | 5 | 4.75 | ug/L | 8.00 | | 59.3 | 60-140 | | |

Batch: BHK1883 - EPA 625 LLE

| Blank (BHK1883-BLK1) | | | Pr | epared: 11/14/2024 | Analyzed: 11/16/202 | 24 | |
|----------------------------------|---------|-------|------|--------------------|---------------------|----------|--|
| 3,3'-Dichlorobenzidine | <5.00 U | 5.00 | ug/L | | | | |
| Benzidine | <50.0 U | 50.0 | ug/L | | | | |
| Surrogate: 2-Fluorobiphenyl-surr | | 0.976 | ug/L | 2.00 | 48.8 | 32.2-138 | |
| Surrogate: Nitrobenzene-d5-surr | | 1.15 | ug/L | 2.00 | 57.6 | 31.2-136 | |
| Surrogate: p-Terphenyl-d14-surr | | 0.921 | ug/L | 2.00 | 46.0 | 37.6-117 | |



Reported:

12/04/2024 10:38

Quality Control

(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| A 11 | | Reporting | | Spike | Source | 0/ DEC | %REC | 000 | RPD |
|------------------------------------|-------------|-----------|-------|--------------|---------------|--------------|--------|-----|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1883 - EPA 625 LLE | (Continued) | | | | | | | | |
| Blank (BHK1883-BLK2) | | | Prep | oared: 11/14 | /2024 Analyze | d: 11/20/202 | 24 | | |
| 1,2,4,5-Tetrachlorobenzene | <10.0 U | 10.0 | ug/L | | | | | | |
| 1,2,4-Trichlorobenzene | <10.0 U | 10.0 | ug/L | | | | | | |
| 1,2-Diphenylhydrazine | <20.0 U | 20.0 | ug/L | | | | | | |
| 2,2'-Oxybis(1-chloropropane), | <10.0 U | 10.0 | ug/L | | | | | | |
| bis(2-Chloro-1-methy | | | • | | | | | | |
| 2,4,5-Trichlorophenol | <10.0 U | 10.0 | ug/L | | | | | | |
| 2,4,6-Trichlorophenol | <10.0 U | 10.0 | ug/L | | | | | | |
| 2,4-Dichlorophenol | <10.0 U | 10.0 | ug/L | | | | | | |
| 2,4-Dimethylphenol | <10.0 U | 10.0 | ug/L | | | | | | |
| 2,4-Dinitrophenol | <50.0 U | 50.0 | ua/L | | | | | | |
| 2.4-Dinitrotoluene (2.4-DNT) | <10.0 U | 10.0 | ua/L | | | | | | |
| 2.6-Dinitrotoluene (2.6-DNT) | <10.0 U | 10.0 | ua/l | | | | | | |
| 2-Chloronanhthalene | <10.0 U | 10.0 | ug/L | | | | | | |
| 2-Chloronbenol | <10.0 U | 10.0 | ug/L | | | | | | |
| 2-Mothyl-4 6-dinitrophonol | <10.0 0 | 50.0 | ug/L | | | | | | |
| (4.6-Dinitro-2-methylph | <50.0 0 | 50.0 | ug/L | | | | | | |
| 2-Nitronbenol | <20.0 II | 20.0 | ua/l | | | | | | |
| 3 4-Methylphenol | <20.0 0 | 10.0 | ug/L | | | | | | |
| 4 Promonhanyl phonyl other (PDE 2) | <10.0 U | 10.0 | ug/L | | | | | | |
| 4-Biomophenyi phenyi ether (BDE-3) | <10.0 U | 10.0 | ug/L | | | | | | |
| 4-Chloro-3-methylphenol | <10.0 U | 10.0 | ug/L | | | | | | |
| 4-Chiorophenyi phenyiether | <10.0 U | 10.0 | ug/L | | | | | | |
| 4-Nitrophenoi | <50.0 U | 50.0 | ug/L | | | | | | |
| Acenaphthene | <10.0 U | 10.0 | ug/L | | | | | | |
| Acenaphthylene | <10.0 U | 10.0 | ug/L | | | | | | |
| Anthracene | <10.0 U | 10.0 | ug/L | | | | | | |
| Benzo(a)anthracene | <5.00 U | 5.00 | ug/L | | | | | | |
| Benzo(a)pyrene | <5.00 U | 5.00 | ug/L | | | | | | |
| benzo(b&k)fluoranthene | <5.00 U | 5.00 | ug/L | | | | | | |
| Benzo(g,h,i)perylene | <20.0 U | 20.0 | ug/L | | | | | | |
| bis(2-Chloroethoxy)methane | <10.0 U | 10.0 | ug/L | | | | | | |
| bis(2-Chloroethyl) ether | <10.0 U | 10.0 | ug/L | | | | | | |
| Bis(2-ethylhexyl)phthalate | <10.0 U | 10.0 | ug/L | | | | | | |
| Butyl benzyl phthalate | <10.0 U | 10.0 | ug/L | | | | | | |
| Chrysene | <5.00 U | 5.00 | ug/L | | | | | | |
| Dibenzo(a,h)anthracene | <5.00 U | 5.00 | ug/L | | | | | | |
| Diethyl phthalate | <10.0 U | 10.0 | ug/L | | | | | | |
| Dimethyl phthalate | <10.0 U | 10.0 | ug/L | | | | | | |
| Di-n-butyl phthalate | <10.0 U | 10.0 | ug/L | | | | | | |
| Di-n-octyl phthalate | <10.0 U | 10.0 | ua/L | | | | | | |
| Fluoranthene | <10.0 U | 10.0 | ua/L | | | | | | |
| Fluorene | <10.0 U | 10.0 | ua/l | | | | | | |
| Hexachlorobenzene | <5.00 11 | 5 00 | ug/L | | | | | | |
| Hexachlorobutadiene | | 10.0 | ug/l | | | | | | |
| Hexachlorocyclonentadiene | | 10.0 | ug/L | | | | | | |
| Heyachloroethane | <0.0 11 | 20.0 | ug/L | | | | | | |
| Heyachloronhana | <20.0 U | 10.0 | ug/L | | | | | | |
| Indone(1,2,2,cd) pyrone | <10.0 U | 10.0 | ug/L | | | | | | |
| Indeno(1,2,3-cd) pyrene | <5.00 U | 5.00 | ug/L | | | | | | |
| Isophorone | <10.0 U | 10.0 | ug/L | | | | | | |



Reported:

12/04/2024 10:38

Quality Control

(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|--------------------------------------|-------------|-----------|--------------|---------------|----------------|-------------|----------|-----|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1883 - EPA 625 LLE | (Continued) | | | | | | | | |
| Blank (BHK1883-BLK2) | | | Pre | pared: 11/14 | /2024 Analyzed | 1: 11/20/20 | 24 | | |
| Naphthalene | <10.0 II | 10.0 | ua/l | | ,,,,, | | | | |
| Nitrobenzene | <10.0 U | 10.0 | ua/l | | | | | | |
| n-Nitrosodiethylamine | <20.0 11 | 20.0 | ua/l | | | | | | |
| n-Nitrosodimethylamine | <20.0 0 | 50.0 | ug/l | | | | | | |
| n-Nitroso-di-n-butylamine | < 30.0 U | 20.0 | ug/L | | | | | | |
| n-Nitrosodi-n-propylamine | <20.0 U | 20.0 | ug/L | | | | | | |
| n-Nitrosodinhenvlamine | <20.0 U | 20.0 | ug/L | | | | | | |
| Pentachlorobenzene | <20.0 U | 20.0 | ug/L | | | | | | |
| Pentachlorophenol | <20.0 U | 5.00 | ug/L | | | | | | |
| Dhenanthrene | <5.00 0 | 10.0 | ug/L | | | | | | |
| Phonol Total | <10.0 U | 10.0 | ug/L | | | | | | |
| | <10.0 U | 10.0 | ug/L | | | | | | |
| Pyriding | <10.0 0 | 10.0 | ug/L | | | | | | |
| ryilaile | <20.0 0 | 20.0 | ug/L | | | | | | |
| Surrogate: 2,4,6-Tribromophenol-surr | | 5.05 | ug/L | 4.00 | | 126 | 33.6-139 | | |
| Surrogate: 2-Fluorobiphenyl-surr | | 1.31 | ug/L | 2.00 | | 65.4 | 32.2-138 | | |
| Surrogate: 2-Fluorophenol-surr | | 3.37 | ug/L | 4.00 | | 84.3 | 32.7-137 | | |
| Surrogate: Nitrobenzene-d5-surr | | 1.32 | ug/L | 2.00 | | 66.1 | 31.2-136 | | |
| Surrogate: Phenol-d5-surr | | 2.75 | ug/L | 4.00 | | 68.8 | 28.9-155 | | |
| Surrogate: p-Terphenyl-d14-surr | | 1.52 | ug/L | 2.00 | | 75.9 | 37.6-117 | | |
| LCS (BHK1883-BS1) | | | Pre | pared: 11/14 | /2024 Analyzed | d: 11/16/20 | 24 | | |
| 3,3'-Dichlorobenzidine | 20.6 | 4.00 | ug/L | 50.0 | - | 41.1 | 0-262 | | |
| Benzidine | <16.0 U | 16.0 | ug/L | 50.0 | | | 0-131 | | |
| Surragata: 2-Eluarabiphanul-curr | | 0.005 | | 2 00 | | 10 7 | 27 7-120 | | |
| Surrogate. 2-1 100 ODIphenyi-Surr | | 1 16 | ug/L | 2.00 | | E0 1 | 21 2 126 | | |
| Surrogate: p-Terphenvl-d14-surr | | 0.922 | ug/L ug/L | 2.00 | | <i>46.1</i> | 37.6-117 | | |
| | | | - 3/ - | | | | | | |
| LCS (BHK1883-BS2) | | | Pre | epared: 11/14 | /2024 Analyzed | d: 11/20/20 | 24 | | |
| 1,2,4,5-Tetrachlorobenzene | 1.59 | 0.300 | ug/L | 2.00 | | 79.4 | 60-140 | | |
| 1,2,4-Trichlorobenzene | 1.50 | 0.300 | ug/L | 2.00 | | 75.2 | 44-142 | | |
| 1,2-Diphenylhydrazine | 1.44 | 0.750 | ug/L | 2.00 | | 71.9 | 60-140 | | |
| 2,2'-Oxybis(1-chloropropane), | 1.42 | 0.400 | ug/L | 2.00 | | 70.8 | 60-140 | | |
| bis(2-Chloro-1-methy | | 0 700 | 4 | 4.00 | | 77.4 | 60.140 | | |
| | 3.09 | 0.700 | ug/L | 4.00 | | 77.4 | 60-140 | | |
| 2,4,6-Irichlorophenol | 3.03 | 1.20 | ug/L | 4.00 | | /5./ | 37-144 | | |
| 2,4-Dichlorophenol | 2.79 | 0.800 | ug/L | 4.00 | | 69.7 | 39-135 | | |
| 2,4-Dimethylphenol | 2.68 | 0.900 | ug/L | 4.00 | | 67.1 | 32-120 | | |
| 2,4-Dinitrophenol | 10.4 | 8.60 | ug/L | 10.0 | | 104 | 0-191 | | |
| 2,4-Dinitrotoluene (2,4-DNT) | 1.59 | 0.200 | ug/L | 2.00 | | 79.5 | 39-139 | | |
| 2,6-Dinitrotoluene (2,6-DNT) | 1.83 | 1.80 | ug/L | 2.00 | | 91.6 | 50-158 | | |
| 2-Chloronaphthalene | 1.41 | 0.400 | ug/L | 2.00 | | 70.3 | 60-120 | | |
| 2-Chlorophenol | 2.69 | 0.500 | ug/L | 4.00 | | 67.3 | 23-134 | | |
| 2-Methyl-4,6-dinitrophenol | 3.54 | 1.60 | ug/L | 4.00 | | 88.5 | 0-181 | | |
| (4,6-Dinitro-2-methylph | | | | | | 60 0 | | | |
| 2-INITrophenol | 2.73 | 0.700 | ug/L | 4.00 | | 68.2 | 29-182 | | |
| 3,4-Methylphenol | 5.15 | 1.40 | ug/L | 8.00 | | 64.3 | 60-140 | | |
| 4-Bromophenyl phenyl ether (BDE-3) | 1.63 | 0.300 | ug/L | 2.00 | | 81.4 | 53-127 | | |



Reported: 12/04/2024 10:38

Quality Control (Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| | | Reportina | | Spike | Source | | %REC | | RPD |
|-------------------------------------|-------------|--------------|--------------|---------------------|----------------|----------------------|------------|-----|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BUK1887 - EDA 675 !! E | (Continued) | | | | | | | | |
| Dallii: DALIOOJ - EPA 023 LLE | (Continueu) | | Dro | narod: 11/1/ | /2024 Applyzo | d. 11/20/20 | 74 | | |
| 4-Chloro-3-mathylphonol | 2.02 | 0.700 | rie | parcu: 11/14 م م | 12027 Allaly2e | u. 11/20/20. 72.0 | ר∠ ר⊿_1 | | |
| 4-Chlorophonyl phonylathar | 2.92 | 0.700 | ug/L | 4.00 | | 72.9 | 22-14/ | | |
| 4-Uniorophenyi phenyiether | 1.53 | 0./00 | ug/L | 2.00 | | /0.0 | 25-158 | | |
| | 8.94 | /.20 | ug/L | 10.0 | | 09.4 60.0 | U-132 | | |
| Acenaphthylana | 1.38 | 0.300 | ug/L | 2.00 | | 09.0 | 47-145 | | |
| Acenaphtnylene | 1.30 | 0.200 | ug/L | 2.00 | | 04.8 70.2 | 33-145 | | |
| Anurdene | 1.59 | 0.200 | ug/L | 2.00 | | 79.3 75.2 | 27-133 | | |
| | 1.51 | 0.300 | ug/L | 2.00 | | /5.3 72 F | 33-143 | | |
| Benzo(a)pyrene | 1.45 | 0.500 | ug/L | 2.00 | | 72.5 | 17-163 | | |
| benzo(b&k)fluorantnene | 2.96 | 0.400 | ug/L | 4.00 | | /3.9 | 60-140 | | |
| benzu(g,n,i)peryiene | 1.37 | 0.400 | ug/L | 2.00 | | 08.4 | 0-219 | | |
| Dis(2-Chloroethoxy)methane | 1.56 | 0.400 | ug/L | 2.00 | | /8.0 | 33-184 | | |
| Dis(2-Chioroetnyi) ether | 1.39 | 0.600 | ug/L | 2.00 | | 69.3 | 12-158 | | |
| Bis(2-ethylhexyl)phthalate | 1.74 | 1.50 | ug/L | 2.00 | | 87.0 | 8-158 | | |
| Butyi benzyi phthalate | 1.46 | 0.400 | ug/L | 2.00 | | /3.0 | 0-152 | | |
| Chrysene | 1.55 | 0.200 | ug/L | 2.00 | | /7.7 | 1/-168 | | |
| Dibenzo(a,h)anthracene | 1.46 | 0.500 | ug/L | 2.00 | | 72.9 | 0-227 | | |
| Dietnyl phthalate | 1.55 | 0.500 | ug/L | 2.00 | | 77.7 | 0-120 | | |
| Dimethyl phthalate | 1.55 | 0.300 | ug/L | 2.00 | | 77.7 | 0-120 | | |
| Di-n-butyl phthalate | 1.87 | 1.60 | ug/L | 2.00 | | 93.6 | 1-120 | | |
| Di-n-octyl phthalate | 1.44 | 0.500 | ug/L | 2.00 | | 72.1 | 4-146 | | |
| Fluoranthene | 1.36 | 0.300 | ug/L | 2.00 | | 68.1 | 26-137 | | |
| Fluorene | 1.57 | 0.200 | ug/L | 2.00 | | 78.4 | 59-121 | | |
| Hexachlorobenzene | 1.42 | 0.200 | ug/L | 2.00 | | 71.1 | 0-152 | | |
| Hexachlorobutadiene | 1.30 | 0.300 | ug/L | 2.00 | | 64.9 | 24-120 | | |
| Hexachlorocyclopentadiene | 1.57 | 0.750 | ug/L | 2.00 | | 78.6 | 60-140 | | |
| Hexachloroethane | 1.35 | 0.200 | ug/L | 2.00 | | 67.4 | 40-120 | | |
| Hexachlorophene | 2.54 | 1.10 | ug/L | 4.00 | | 63.5 | 60-140 | | |
| Indeno(1,2,3-cd) pyrene | 1.54 | 0.400 | ug/L | 2.00 | | 76.8 | 0-171 | | |
| Isophorone | 1.53 | 0.300 | ug/L | 2.00 | | 76.5 | 21-196 | | |
| Naphthalene | 1.37 | 0.300 | ug/L | 2.00 | | 68.4 | 21-133 | | |
| Nitrobenzene | 1.49 | 0.400 | ug/L | 2.00 | | 74.3 | 35-180 | | |
| n-Nitrosodiethylamine | 0.608 J1 | 0.500 | ug/L | 2.00 | | 30.4 | 60-140 | | |
| n-Nitrosodimethylamine | <3.80 U | 3.80 | ug/L | 10.0 | | | 4.18-37.2 | | |
| n-Nitroso-di-n-butylamine | <5.70 U | 5.70 | ug/L | 2.00 | | | 60-140 | | |
| n-Nitrosodi-n-propylamine | 1.54 | 1.40 | ug/L | 2.00 | | 76.9 | 0-230 | | |
| n-Nitrosodiphenylamine | 0.403 J1 | 0.200 | ug/L | 2.00 | | 20.2 | 60-140 | | |
| Pentachlorobenzene | 1.24 | 0.200 | ug/L | 2.00 | | 61.8 | 60-140 | | |
| Pentachlorophenol | 3.61 | 1.40 | ug/L | 4.00 | | 90.2 | 14-176 | | |
| Phenanthrene | 1.54 | 0.300 | ug/L | 2.00 | | 76.9 | 54-120 | | |
| Phenol, Total | 2.69 | 1.50 | ug/L | 4.00 | | 67.3 | 5-120 | | |
| Pyrene | 1.42 | 0.300 | ug/L | 2.00 | | 71.1 | 52-120 | | |
| Pyridine | <13.3 U | 13.3 | ug/L | 10.0 | | | 0-137 | | |
| Surrogate: 24 6-Tribromonhenol-surr | | 7 04 | ua/I | 4 NN | | 73 4 | 33 6-130 | | |
| Surrogate: 2-Fluorohinbenvl-curr | | 1 41 | ug/L | 7.00 7.00 | | 70 G | 37 7-178 | | |
| Surrogate: 2-Fluoronhenol-curr | | 1.71 2.07 | ug/L ug/l | 2.00 4.00 | | 70.0 | 32.2-130 | | |
| Surrogate: Nitrobenzene-d5-curr | | 1 72 | ug/L | 7.00 7.00 | | 617 | 31 2-126 | | |
| Surrogate: Phenol-d5-surr | | 2 70 | ug/L | 2.00 4 NN | | 67.5 | 28 9-155 | | |
| Sanogale, inchoi as sull | | 2.70 | uy/L | 1.00 | | 0/.5 | 20.2-133 | | |



Reported:

12/04/2024 10:38

Quality Control

(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|------------------------------------|-------------|-----------|-------|--------------|---------------|-------------|----------|-------|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1883 - EPA 625 LLE | (Continued) | | | | | | | | |
| LCS (BHK1883-BS2) | . , | | Pre | pared: 11/14 | /2024 Analyze | d: 11/20/20 | 24 | | |
| Surrogate: p-Terphenyl-d14-surr | | 1.51 | ug/L | 2.00 | | 75.4 | 37.6-117 | | |
| LCS Dup (BHK1883-BSD1) | | | Pre | pared: 11/14 | /2024 Analyze | d: 11/16/20 | 24 | | |
| 3,3'-Dichlorobenzidine | 21.8 | 5.00 | ug/L | 50.0 | | 43.6 | 0-262 | 5.98 | 108 |
| Benzidine | <50.0 U | 50.0 | ug/L | 50.0 | | | 0-131 | 200 | 40 |
| Surrogate: 2-Fluorobiphenyl-surr | | 1.23 | ug/L | 2.00 | | 61.5 | 32.2-138 | | |
| Surrogate: Nitrobenzene-d5-surr | | 1.28 | ug/L | 2.00 | | 64.0 | 31.2-136 | | |
| Surrogate: p-Terphenyl-d14-surr | | 1.01 | ug/L | 2.00 | | 50.5 | 37.6-117 | | |
| LCS Dup (BHK1883-BSD2) | | | Pre | pared: 11/14 | /2024 Analyze | d: 11/20/20 | 24 | | |
| 1,2,4,5-Tetrachlorobenzene | 1.40 U | 10.0 | ug/L | 2.00 | | 70.1 | 60-140 | 12.4 | 40 |
| 1,2,4-Trichlorobenzene | 1.36 U | 10.0 | ug/L | 2.00 | | 68.1 | 44-142 | 9.90 | 50 |
| 1,2-Diphenylhydrazine | 1.35 U | 20.0 | ug/L | 2.00 | | 67.4 | 60-140 | 6.41 | 40 |
| 2,2'-Oxybis(1-chloropropane), | 1.31 U | 10.0 | ug/L | 2.00 | | 65.6 | 60-140 | 7.65 | 40 |
| bis(2-Chloro-1-methy | | | | | | | | | |
| 2,4,5-Trichlorophenol | 3.11 U | 10.0 | ug/L | 4.00 | | 77.9 | 60-140 | 0.636 | 40 |
| 2,4,6-Trichlorophenol | 2.99 U | 10.0 | ug/L | 4.00 | | 74.7 | 37-144 | 1.40 | 58 |
| 2,4-Dichlorophenol | 2.62 U | 10.0 | ug/L | 4.00 | | 65.4 | 39-135 | 6.43 | 50 |
| 2,4-Dimethylphenol | 2.45 U | 10.0 | ug/L | 4.00 | | 61.2 | 32-120 | 9.17 | 58 |
| 2,4-Dinitrophenol | 9.84 U | 50.0 | ug/L | 10.0 | | 98.4 | 0-191 | 5.91 | 132 |
| 2,4-Dinitrotoluene (2,4-DNT) | 1.58 U | 10.0 | ug/L | 2.00 | | 79.2 | 39-139 | 0.390 | 42 |
| 2,6-Dinitrotoluene (2,6-DNT) | 1.73 U | 10.0 | ug/L | 2.00 | | 86.4 | 50-158 | 5.90 | 48 |
| 2-Chloronaphthalene | 1.44 U | 10.0 | ug/L | 2.00 | | 72.1 | 60-120 | 2.57 | 24 |
| 2-Chlorophenol | 2.67 U | 10.0 | ug/L | 4.00 | | 66.7 | 23-134 | 0.869 | 61 |
| 2-Methyl-4,6-dinitrophenol | 3.28 U | 50.0 | ug/L | 4.00 | | 82.1 | 0-181 | 7.60 | 203 |
| (4,6-Dinitro-2-methylph | | | | | | | | | |
| 2-Nitrophenol | 2.54 U | 20.0 | ug/L | 4.00 | | 63.4 | 29-182 | 7.26 | 55 |
| 3,4-Methylphenol | 4.88 U | 10.0 | ug/L | 8.00 | | 61.0 | 60-140 | 5.26 | 40 |
| 4-Bromophenyl phenyl ether (BDE-3) | 1.53 U | 10.0 | ug/L | 2.00 | | 76.3 | 53-127 | 6.48 | 43 |
| 4-Chloro-3-methylphenol | 2.65 U | 10.0 | ug/L | 4.00 | | 66.3 | 22-147 | 9.47 | 73 |
| 4-Chlorophenyl phenylether | 1.44 U | 10.0 | ug/L | 2.00 | | 72.1 | 25-158 | 5.97 | 61 |
| 4-Nitrophenol | 8.34 U | 50.0 | ug/L | 10.0 | | 83.4 | 0-132 | 6.96 | 131 |
| Acenaphthene | 1.37 U | 10.0 | ug/L | 2.00 | | 68.3 | 47-145 | 1.01 | 48 |
| Acenaphthylene | 1.27 U | 10.0 | ug/L | 2.00 | | 63.7 | 33-145 | 1.65 | 74 |
| Anthracene | 1.46 U | 10.0 | ug/L | 2.00 | | 72.9 | 27-133 | 8.46 | 66 |
| Benzo(a)anthracene | 1.35 U | 5.00 | ug/L | 2.00 | | 67.5 | 33-143 | 11.0 | 53 |
| Benzo(a)pyrene | 1.34 U | 5.00 | ug/L | 2.00 | | 66.8 | 17-163 | 8.18 | 72 |
| benzo(b&k)fluoranthene | 2.79 U | 5.00 | ug/L | 4.00 | | 69.7 | 60-140 | 5.85 | 40 |
| Benzo(g,h,i)perylene | 1.25 U | 20.0 | ug/L | 2.00 | | 62.6 | 0-219 | 8.85 | 97 |
| bis(2-Chloroethoxy)methane | 1.43 U | 10.0 | ug/L | 2.00 | | 71.5 | 33-184 | 8.77 | 54 |
| bis(2-Chloroethyl) ether | 1.32 U | 10.0 | ug/L | 2.00 | | 66.2 | 12-158 | 4.66 | 108 |
| Bis(2-ethylhexyl)phthalate | 1.56 U | 10.0 | ug/L | 2.00 | | 77.8 | 8-158 | 11.1 | 82 |
| Butyl benzyl phthalate | 1.29 U | 10.0 | ug/L | 2.00 | | 64.6 | 0-152 | 12.3 | 60 |
| Chrysene | 1.39 U | 5.00 | ug/L | 2.00 | | 69.5 | 17-168 | 11.1 | 87 |
| Dibenzo(a,h)anthracene | 1.41 U | 5.00 | ug/L | 2.00 | | 70.5 | 0-227 | 3.32 | 126 |
| Diethyl phthalate | 1.47 U | 10.0 | ug/L | 2.00 | | 73.7 | 0-120 | 5.32 | 100 |
| Dimethyl phthalate | 1.55 U | 10.0 | ug/L | 2.00 | | 77.4 | 0-120 | 0.373 | 183 |



Reported: 12/04/2024 10:38

Quality Control (Continued)

| Analyte | Result Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------|---------------|--------------------|-------|----------------|------------------|-------------|----------------|-------|--------------|
| Batch: BHK1883 - EPA 625 LLI | E (Continued) | | | | | | | | |
| LCS Dup (BHK1883-BSD2) | . , | | Pre | oared: 11/14 | /2024 Analyze | d: 11/20/20 | 24 | | |
| Di-n-butyl phthalate | 1.71 U | 10.0 | ug/L | 2.00 | | 85.7 | 1-120 | 8.83 | 47 |
| Di-n-octyl phthalate | 1.36 U | 10.0 | ug/L | 2.00 | | 67.9 | 4-146 | 6.06 | 69 |
| Fluoranthene | 1.24 U | 10.0 | ug/L | 2.00 | | 61.9 | 26-137 | 9.51 | 66 |
| Fluorene | 1.48 U | 10.0 | ug/L | 2.00 | | 74.1 | 59-121 | 5.54 | 38 |
| Hexachlorobenzene | 1.29 U | 5.00 | ug/L | 2.00 | | 64.4 | 0-152 | 9.96 | 55 |
| Hexachlorobutadiene | 1.27 U | 10.0 | ug/L | 2.00 | | 63.5 | 24-120 | 2.21 | 62 |
| Hexachlorocyclopentadiene | 1.51 U | 10.0 | ug/L | 2.00 | | 75.4 | 60-140 | 4.19 | 40 |
| Hexachloroethane | 1.24 U | 20.0 | ug/L | 2.00 | | 62.0 | 40-120 | 8.44 | 52 |
| Hexachlorophene | 2.09 J1, U | 10.0 | ug/L | 4.00 | | 52.2 | 60-140 | 19.5 | 40 |
| Indeno(1,2,3-cd) pyrene | 1.43 U | 5.00 | ug/L | 2.00 | | 71.3 | 0-171 | 7.45 | 99 |
| Isophorone | 1.43 U | 10.0 | ug/L | 2.00 | | 71.4 | 21-196 | 6.94 | 93 |
| Naphthalene | 1.24 U | 10.0 | ug/L | 2.00 | | 62.2 | 21-133 | 9.46 | 65 |
| Nitrobenzene | 1.42 U | 10.0 | ug/L | 2.00 | | 70.8 | 35-180 | 4.90 | 62 |
| n-Nitrosodiethylamine | 0.586 J1, U | 20.0 | ug/L | 2.00 | | 29.3 | 60-140 | 3.78 | 40 |
| n-Nitrosodimethylamine | <50.0 U | 50.0 | ug/L | 10.0 | | | 4.18-37.2 | 200 | 40 |
| n-Nitroso-di-n-butylamine | <20.0 U | 20.0 | ug/L | 2.00 | | | 60-140 | 200 | 40 |
| n-Nitrosodi-n-propylamine | 1.44 U | 20.0 | ug/L | 2.00 | | 72.2 | 0-230 | 6.31 | 87 |
| n-Nitrosodiphenylamine | 0.419 J1, U | 20.0 | ug/L | 2.00 | | 21.0 | 60-140 | 3.83 | 40 |
| Pentachlorobenzene | 1.24 U | 20.0 | ug/L | 2.00 | | 62.0 | 60-140 | 0.358 | 40 |
| Pentachlorophenol | 2.96 U | 5.00 | ug/L | 4.00 | | 73.9 | 14-176 | 19.8 | 86 |
| Phenanthrene | 1.45 U | 10.0 | ug/L | 2.00 | | 72.4 | 54-120 | 6.12 | 39 |
| Phenol, Total | 2.58 U | 10.0 | ug/L | 4.00 | | 64.6 | 5-120 | 4.20 | 64 |
| Pyrene | 1.30 U | 10.0 | ug/L | 2.00 | | 64.9 | 52-120 | 9.14 | 49 |
| Pyridine | <20.0 U | 20.0 | ug/L | 10.0 | | | 0-137 | 200 | 40 |
| Surrogate: 2,4,6-Tribromophenol-surr | | 2.93 | ug/L | 4.00 | | 73.4 | 33.6-139 | | |
| Surrogate: 2-Fluorobiphenyl-surr | | 1.32 | ug/L | 2.00 | | 65.9 | 32.2-138 | | |
| Surrogate: 2-Fluorophenol-surr | | 3.01 | ug/L | 4.00 | | <i>75.2</i> | 32.7-137 | | |
| Surrogate: Nitrobenzene-d5-surr | | 1.23 | ug/L | 2.00 | | 61.5 | 31.2-136 | | |
| Surrogate: Phenol-d5-surr | | 2.60 | ug/L | 4.00 | | 65.1 | 28.9-155 | | |
| Surrogate: p-Terphenyl-d14-surr | | 1.41 | ug/L | 2.00 | | 70.6 | 37.6-117 | | |



Reported: 12/04/2024 10:38

Quality Control (Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|------------------------------------|-------------|--------------|-------|--------------|----------------|--------------|--------|-----|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| | (Continued) | | | | | | | | |
| Batch: BHK1883 - EPA 625 LLE | (Continuea) | | Dur | | (2024 Aughters | 1. 11/20/20 | | | |
| Matrix Spike (BHK1883-MS1) | Source: 2 | 4K2698-U1KE1 | , Pre | pared: 11/14 | 2024 Analyze | d: 11/20/20 | 24 | | |
| 1,2,4,5-l etrachlorobenzene | 1.80 | 0.300 | ug/L | 2.00 | < 0.300 | 90.1 | 60-140 | | |
| 1,2,4-Trichlorobenzene | 1.80 | 0.300 | ug/L | 2.00 | < 0.300 | 90.1 | 44-142 | | |
| 1,2-Diphenylhydrazine | 8.45 L | 0.750 | ug/L | 2.00 | 6.84 | 80.6 | 60-140 | | |
| 2,2'-Oxybis(1-chloropropane), | 1.63 | 0.400 | ug/L | 2.00 | 0.370 | 63.1 | 60-140 | | |
| bis(2-Chloro-1-methy | | | | | . = | | | | |
| 2,4,5-1 richlorophenol | 3.37 | 0.700 | ug/L | 4.00 | <0.700 | 84.2 | 60-140 | | |
| 2,4,6-Trichlorophenol | 3.91 | 1.20 | ug/L | 4.00 | <1.20 | 97.7 | 37-144 | | |
| 2,4-Dichlorophenol | 4.45 | 0.800 | ug/L | 4.00 | 1.08 | 84.3 | 39-135 | | |
| 2,4-Dimethylphenol | 3.21 | 0.900 | ug/L | 4.00 | 0.328 | 72.2 | 32-120 | | |
| 2,4-Dinitrophenol | 12.6 | 8.60 | ug/L | 10.0 | <8.60 | 126 | 0-191 | | |
| 2,4-Dinitrotoluene (2,4-DNT) | 1.57 | 0.200 | ug/L | 2.00 | <0.200 | 78.3 | 39-139 | | |
| 2,6-Dinitrotoluene (2,6-DNT) | 2.81 | 1.80 | ug/L | 2.00 | <1.80 | 140 | 50-158 | | |
| 2-Chloronaphthalene | 1.54 | 0.400 | ug/L | 2.00 | <0.400 | 77.0 | 60-120 | | |
| 2-Chlorophenol | 3.08 | 0.500 | ug/L | 4.00 | <0.500 | 77.0 | 23-134 | | |
| 2-Methyl-4,6-dinitrophenol | 4.71 | 1.60 | ug/L | 4.00 | <1.60 | 118 | 0-181 | | |
| (4,6-Dinitro-2-methylph | | | | | | | | | |
| 2-Nitrophenol | 2.94 | 0.700 | ug/L | 4.00 | <0.700 | 73.5 | 29-182 | | |
| 3,4-Methylphenol | 91.2 J1, L | 1.40 | ug/L | 8.00 | 158 | NR | 60-140 | | |
| 4-Bromophenyl phenyl ether (BDE-3) | 2.32 | 0.300 | ug/L | 2.00 | <0.300 | 116 | 53-127 | | |
| 4-Chloro-3-methylphenol | 5.73 | 0.700 | ug/L | 4.00 | <0.700 | 143 | 22-147 | | |
| 4-Chlorophenyl phenylether | 2.03 | 0.700 | ug/L | 2.00 | <0.700 | 102 | 25-158 | | |
| 4-Nitrophenol | 19.2 J1 | 7.20 | ug/L | 10.0 | <7.20 | 192 | 0-132 | | |
| Acenaphthene | 1.45 | 0.300 | ug/L | 2.00 | < 0.300 | 72.3 | 47-145 | | |
| Acenaphthylene | 1.37 | 0.200 | ug/L | 2.00 | <0.200 | 68.6 | 33-145 | | |
| Anthracene | 2.16 | 0.200 | ug/L | 2.00 | 0.283 | 93.8 | 27-133 | | |
| Benzo(a)anthracene | 1.11 | 0.300 | ug/L | 2.00 | <0.300 | 55.3 | 33-143 | | |
| Benzo(a)pyrene | 1 53 | 0.500 | ua/L | 2.00 | < 0.500 | 76.3 | 17-163 | | |
| benzo(b&k)fluoranthene | 3.69 | 0.400 | ua/L | 4.00 | < 0.400 | 92.3 | 60-140 | | |
| Benzo(a.h.i)pervlene | 1 20 | 0.400 | ua/l | 2.00 | < 0.400 | 60.1 | 0-219 | | |
| his(2-Chloroethoxy)methane | 2.20 | 0.400 | ua/l | 2.00 | < 0.400 | 111 | 33-184 | | |
| his(2-Chloroethyl) ether | 1.25 | 0.600 | ug/L | 2.00 | <0.100 | 67.6 | 12-158 | | |
| Bis(2-ethylbeyyl)nhthalate | 1.55 | 1 50 | ug/L | 2.00 | 6.61 | 32.8 | 8-158 | | |
| Butyl benzyl obthalate | 7.20 L | 0 400 | ug/L | 2.00 | <0.01 | 92.0 88.0 | 0-152 | | |
| Chrysene | 1.70 | 0.100 | ug/L | 2.00 | <0.100 | 87.0 | 17-168 | | |
| Dihonzo(a h)anthracana | 1.76 | 0.200 | ug/L | 2.00 | <0.200 | 66.0 | 0 227 | | |
| | 1.32 | 0.500 | ug/L | 2.00 | < 0.500 | 22.4 | 0.120 | | |
| Dieuriyi primalate | 4.95 L | 0.500 | ug/L | 2.00 | 4.31 | 32.4 | 0-120 | | |
| Dimetnyi phthalate | 1.94 | 0.300 | ug/L | 2.00 | < 0.300 | 97.2 | 0-120 | | |
| | 2.12 | 1.60 | ug/L | 2.00 | 0.896 | 61.0 | 1-120 | | |
| Di-n-octyl phthalate | 1.34 | 0.500 | ug/L | 2.00 | <0.500 | 67.1 | 4-146 | | |
| Fluoranthene | 1.53 | 0.300 | ug/L | 2.00 | <0.300 | /6.5 | 26-137 | | |
| Fluorene | 1.91 | 0.200 | ug/L | 2.00 | <0.200 | 95.6 | 59-121 | | |
| Hexachlorobenzene | 1.57 | 0.200 | ug/L | 2.00 | <0.200 | 78.3 | 0-152 | | |
| Hexachlorobutadiene | 1.84 | 0.300 | ug/L | 2.00 | <0.300 | 91.8 | 24-120 | | |
| Hexachlorocyclopentadiene | 1.11 J1 | 0.750 | ug/L | 2.00 | <0.750 | 55.5 | 60-140 | | |
| Hexachloroethane | 1.30 | 0.200 | ug/L | 2.00 | <0.200 | 65.1 | 40-120 | | |
| Hexachlorophene | 2.61 J1 | 1.10 | ug/L | 4.00 | 1.45 | 29.0 | 60-140 | | |
| Indeno(1,2,3-cd) pyrene | 1.28 | 0.400 | ug/L | 2.00 | <0.400 | 64.1 | 0-171 | | |
| Isophorone | 2.10 | 0.300 | ug/L | 2.00 | 0.548 | 77.5 | 21-196 | | |



Reported: 12/04/2024 10:38

Quality Control (Continued)

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|--------------------------------------|------------|-----------|--------------|-------|---------------|---------------|-------------|----------|-----|-------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1883 - EPA 625 LLE | (Continued | 1) | | | | | | | | |
| Matrix Spike (BHK1883-MS1) | • | Source: 2 | 4K2698-01RE1 | Pre | pared: 11/14, | /2024 Analyze | d: 11/20/20 | 24 | | |
| Naphthalene | 1.45 | | 0.300 | ug/L | 2.00 | < 0.300 | 72.4 | 21-133 | | |
| Nitrobenzene | 1.55 | | 0.400 | ug/L | 2.00 | <0.400 | 77.3 | 35-180 | | |
| n-Nitrosodiethylamine | 0.466 | J1, U | 0.500 | ug/L | 2.00 | <0.500 | 23.3 | 60-140 | | |
| n-Nitrosodimethylamine | <3.80 | J1, U | 3.80 | ug/L | 10.0 | <3.80 | | 4.18-91 | | |
| n-Nitroso-di-n-butylamine | <5.70 | U | 5.70 | ug/L | 2.00 | <5.70 | | 60-140 | | |
| n-Nitrosodi-n-propylamine | 1.44 | | 1.40 | ug/L | 2.00 | <1.40 | 72.0 | 0-230 | | |
| n-Nitrosodiphenylamine | 2.74 | | 0.200 | ug/L | 2.00 | <0.200 | 137 | 60-140 | | |
| Pentachlorobenzene | 1.44 | | 0.200 | ug/L | 2.00 | <0.200 | 71.8 | 60-140 | | |
| Pentachlorophenol | 4.09 | | 1.40 | ug/L | 4.00 | <1.40 | 102 | 14-176 | | |
| Phenanthrene | 1.87 | | 0.300 | ug/L | 2.00 | <0.300 | 93.4 | 54-120 | | |
| Phenol, Total | 26.7 | J1, L | 1.50 | ug/L | 4.00 | 28.2 | NR | 5-120 | | |
| Pyrene | 0.822 | J1 | 0.300 | ug/L | 2.00 | <0.300 | 41.1 | 52-120 | | |
| Pyridine | <13.3 | J1, U | 13.3 | ug/L | 10.0 | <13.3 | | 60-140 | | |
| Surrogate: 2,4,6-Tribromophenol-surr | | | 3.66 | ug/L | 4.00 | | 91.6 | 33.6-139 | | |
| Surrogate: 2-Fluorobiphenyl-surr | | | 2.20 | ug/L | 2.00 | | 110 | 32.2-138 | | |
| Surrogate: 2-Fluorophenol-surr | | | 3.06 | ug/L | 4.00 | | 76.6 | 32.7-137 | | |
| Surrogate: Nitrobenzene-d5-surr | | | 1.51 | ug/L | 2.00 | | 75.6 | 31.2-136 | | |
| Surrogate: Phenol-d5-surr | | | 2.96 | ug/L | 4.00 | | 74.0 | 28.9-155 | | |
| Surrogate: p-Terphenyl-d14-surr | | | 0.800 | ug/L | 2.00 | | 40.0 | 37.6-117 | | |
| Matrix Spike (BHK1883-MS2) | | Source: 2 | 4K2698-01RE2 | Pre | pared: 11/14, | /2024 Analyze | d: 11/22/20 | 24 | | |
| 1,2-Diphenylhydrazine | 2.68 | U | 3.75 | ug/L | 2.00 | 1.32 | 68.0 | 60-140 | | |
| Bis(2-ethylhexyl)phthalate | 12.0 | U | 15.0 | ug/L | 2.00 | 9.70 | 115 | 8-158 | | |
| Diethyl phthalate | 6.27 | | 2.50 | ug/L | 2.00 | 5.45 | 41.1 | 0-120 | | |
| Phenol, Total | 35.1 | | 15.0 | ug/L | 4.00 | 31.1 | 101 | 5-120 | | |
| Surrogate: 2,4,6-Tribromophenol-surr | | | 3.57 | ug/L | 4.00 | | 89.3 | 33.6-139 | | |
| Surrogate: 2-Fluorobiphenyl-surr | | | 2.31 | ug/L | 2.00 | | 116 | 32.2-138 | | |
| Surrogate: 2-Fluorophenol-surr | | | 2.68 | ug/L | 4.00 | | 66.9 | 32.7-137 | | |
| Surrogate: Nitrobenzene-d5-surr | | | 1.65 | ug/L | 2.00 | | 82.7 | 31.2-136 | | |
| Surrogate: Phenol-d5-surr | | | 3.62 | ug/L | 4.00 | | 90.4 | 28.9-155 | | |
| Surrogate: p-Terphenyl-d14-surr | | | 1.64 | ug/L | 2.00 | | 82.1 | 37.6-117 | | |



Reported:

12/04/2024 10:38

Quality Control

(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|------------------------------------------|-------------|---------------|--------------|--------------|---------------|--------------|----------------------|--------|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1883 - FPA 625 I I F ((| Continued) | | | | | | | | |
| Matrix Spike (BHK1883-MS3) | Source: | 24K2698-01RE3 | Pre | pared: 11/14 | /2024 Analyze | ed: 11/23/20 | 24 | | |
| 3,4-Methylphenol | 128 | 35.0 | ug/L | 8.00 | 121 | 86.9 | 60-140 | | |
| Surragita 246 Tribromonhonol surr | | 1 06 | | 4 00 | | 101 | 22 6 120 | | |
| Surrogate: 2,4,0-110101100110011001-Surr | | 7.00 | ug/L | 4.00 | | 101 01 2 | 22 7-127 | | |
| Surrogate: Phenol-d5-surr | S | 7 32 | ug/L ug/l | 4.00 | | 183 | 22.7-137 28 0-155 | | |
| | 5 | 7.52 | ug/L | 4.00 | | 105 | 20.9-135 | | |
| Matrix Spike Dup (BHK1883-MSD1) | Source: | 24K2698-01RE1 | Pre | pared: 11/14 | /2024 Analyze | ed: 11/20/20 | 24 | | |
| 1,2,4,5-Tetrachlorobenzene | 1.80 U | 10.0 | ug/L | 2.00 | <10.0 | 90.1 | 60-140 | 0.0620 | 40 |
| 1,2,4-Trichlorobenzene | 1.74 U | 10.0 | ug/L | 2.00 | <10.0 | 87.0 | 44-142 | 3.47 | 50 |
| 1,2-Diphenylhydrazine | 8.16 L, U | 20.0 | ug/L | 2.00 | 6.84 | 65.7 | 60-140 | 3.60 | 40 |
| 2,2'-Oxybis(1-chloropropane), | 1.49 J1, U | 10.0 | ug/L | 2.00 | 0.370 | 55.9 | 60-140 | 9.24 | 40 |
| bis(2-Chloro-1-methy | | | | | | | | | |
| 2,4,5-Trichlorophenol | 3.69 U | 10.0 | ug/L | 4.00 | <10.0 | 92.3 | 60-140 | 9.18 | 40 |
| 2,4,6-Trichlorophenol | 3.58 U | 10.0 | ug/L | 4.00 | <10.0 | 89.4 | 37-144 | 8.90 | 58 |
| 2,4-Dichlorophenol | 4.37 U | 10.0 | ug/L | 4.00 | 1.08 | 82.2 | 39-135 | 1.84 | 50 |
| 2,4-Dimethylphenol | 3.00 U | 10.0 | ug/L | 4.00 | 0.328 | 66.7 | 32-120 | 7.04 | 58 |
| 2,4-Dinitrophenol | 12.3 U | 50.0 | ug/L | 10.0 | <50.0 | 123 | 0-191 | 2.86 | 132 |
| 2,4-Dinitrotoluene (2,4-DNT) | 1.48 U | 10.0 | ug/L | 2.00 | <10.0 | 74.0 | 39-139 | 5.57 | 42 |
| 2,6-Dinitrotoluene (2,6-DNT) | 2.66 U | 10.0 | ug/L | 2.00 | <10.0 | 133 | 50-158 | 5.21 | 48 |
| 2-Chloronaphthalene | 1.71 U | 10.0 | ug/L | 2.00 | <10.0 | 85.4 | 60-120 | 10.3 | 24 |
| 2-Chlorophenol | 3.18 U | 10.0 | ug/L | 4.00 | <10.0 | 79.4 | 23-134 | 3.09 | 61 |
| 2-Methyl-4,6-dinitrophenol | 4.63 U | 50.0 | ug/L | 4.00 | <50.0 | 116 | 0-181 | 1.74 | 203 |
| (4,6-Dinitro-2-methylph | | | | | | | | | |
| 2-Nitrophenol | 3.12 U | 20.0 | ug/L | 4.00 | <20.0 | 78.1 | 29-182 | 6.03 | 55 |
| 3,4-Methylphenol | 109 J1, L | 10.0 | ug/L | 8.00 | 158 | NR | 60-140 | 18.0 | 40 |
| 4-Bromophenyl phenyl ether (BDE-3) | 2.48 U | 10.0 | ug/L | 2.00 | <10.0 | 124 | 53-127 | 6.63 | 43 |
| 4-Chloro-3-methylphenol | 5.71 U | 10.0 | ug/L | 4.00 | <10.0 | 143 | 22-147 | 0.353 | 73 |
| 4-Chlorophenyl phenylether | 1.94 U | 10.0 | ug/L | 2.00 | <10.0 | 96.8 | 25-158 | 4.78 | 61 |
| 4-Nitrophenol | 15.0 J1, U | 50.0 | ug/L | 10.0 | <50.0 | 150 | 0-132 | 24.2 | 131 |
| Acenaphthene | 1.54 U | 10.0 | ug/L | 2.00 | <10.0 | 77.1 | 47-145 | 6.44 | 48 |
| Acenaphthylene | 1.53 U | 10.0 | ug/L | 2.00 | <10.0 | 76.3 | 33-145 | 10.7 | 74 |
| Anthracene | 2.15 U | 10.0 | ug/L | 2.00 | 0.283 | 93.4 | 27-133 | 0.361 | 66 |
| Benzo(a)anthracene | 1.08 U | 5.00 | ug/L | 2.00 | <5.00 | 54.0 | 33-143 | 2.39 | 53 |
| Benzo(a)pyrene | 1.58 U | 5.00 | ug/L | 2.00 | <5.00 | 79.2 | 17-163 | 3.71 | 72 |
| benzo(b&k)fluoranthene | 3.78 U | 5.00 | ug/L | 4.00 | <5.00 | 94.5 | 60-140 | 2.36 | 40 |
| Benzo(g,h,i)perylene | 1.15 U | 20.0 | ug/L | 2.00 | <20.0 | 57.5 | 0-219 | 4.36 | 97 |
| bis(2-Chloroethoxy)methane | 2.45 U | 10.0 | ug/L | 2.00 | <10.0 | 122 | 33-184 | 9.85 | 54 |
| bis(2-Chloroethyl) ether | 0.935 U | 10.0 | ug/L | 2.00 | <10.0 | 46.8 | 12-158 | 36.5 | 108 |
| Bis(2-ethylhexyl)phthalate | 7.26 L, U | 10.0 | ug/L | 2.00 | 6.61 | 32.7 | 8-158 | 0.0153 | 82 |
| Butyl benzyl phthalate | 1.78 U | 10.0 | ug/L | 2.00 | <10.0 | 88.8 | 0-152 | 0.929 | 60 |
| Chrysene | 1.74 U | 5.00 | ug/L | 2.00 | <5.00 | 86.8 | 17-168 | 1.26 | 87 |
| Dibenzo(a,h)anthracene | 1.26 U | 5.00 | ug/L | 2.00 | <5.00 | 63.1 | 0-227 | 4.72 | 126 |
| Diethyl phthalate | 5.65 L, U | 10.0 | ug/L | 2.00 | 4.31 | 67.4 | 0-120 | 13.2 | 100 |
| Dimethyl phthalate | 1.99 U | 10.0 | ug/L | 2.00 | <10.0 | 99.4 | 0-120 | 2.26 | 183 |
| DI-n-butyl phthalate | 2.17 U | 10.0 | ug/L | 2.00 | 0.896 | 63.7 | 1-120 | 2.55 | 47 |
| DI-n-octyl phthalate | 1.37 U | 10.0 | ug/L | 2.00 | <10.0 | 68.7 | 4-146 | 2.37 | 69 |
| Fluoranthene | 1.61 U | 10.0 | ug/L | 2.00 | <10.0 | 80.7 | 26-137 | 5.29 | 66 |
| Fluorene | 1.97 U | 10.0 | ug/L | 2.00 | <10.0 | 98.4 | 59-121 | 2.89 | 38 |



Reported: 12/04/2024 10:38

Quality Control (Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|--------------------------------------|-----------|----------------|--------------|-------|---------------|--------------|-------------|----------|-------|-------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1883 - EPA 625 LLE (C | Continued |) | | | | | | | | |
| Matrix Spike Dup (BHK1883-MSD1) | | , Source: 2 | 4K2698-01RE1 | Pre | pared: 11/14/ | 2024 Analyze | d: 11/20/20 | 24 | | |
| Hexachlorobenzene | 1.67 | U | 5.00 | ug/L | 2.00 | <5.00 | 83.4 | 0-152 | 6.29 | 55 |
| Hexachlorobutadiene | 1.58 | U | 10.0 | ug/L | 2.00 | <10.0 | 78.8 | 24-120 | 15.2 | 62 |
| Hexachlorocyclopentadiene | 2.38 | J1, U | 10.0 | ug/L | 2.00 | <10.0 | 119 | 60-140 | 72.9 | 40 |
| Hexachloroethane | 1.34 | U | 20.0 | ug/L | 2.00 | <20.0 | 67.1 | 40-120 | 3.06 | 52 |
| Hexachlorophene | 2.23 | J1, U | 10.0 | ug/L | 4.00 | 1.45 | 19.4 | 60-140 | 15.9 | 40 |
| Indeno(1,2,3-cd) pyrene | 1.25 | U | 5.00 | ug/L | 2.00 | <5.00 | 62.5 | 0-171 | 2.48 | 99 |
| Isophorone | 2.06 | U | 10.0 | ug/L | 2.00 | 0.548 | 75.7 | 21-196 | 1.70 | 93 |
| Naphthalene | 1.39 | U | 10.0 | ug/L | 2.00 | <10.0 | 69.3 | 21-133 | 4.45 | 65 |
| Nitrobenzene | 1.89 | U | 10.0 | ug/L | 2.00 | <10.0 | 94.7 | 35-180 | 20.2 | 62 |
| n-Nitrosodiethylamine | 0.531 | J1, U | 20.0 | ug/L | 2.00 | <20.0 | 26.5 | 60-140 | 13.1 | 40 |
| n-Nitrosodimethylamine | <50.0 | J1, U | 50.0 | ug/L | 10.0 | <50.0 | | 4.18-91 | | 40 |
| n-Nitroso-di-n-butylamine | <20.0 | U | 20.0 | ug/L | 2.00 | <20.0 | | 60-140 | | 40 |
| n-Nitrosodi-n-propylamine | 1.43 | U | 20.0 | ug/L | 2.00 | <20.0 | 71.3 | 0-230 | 0.958 | 87 |
| n-Nitrosodiphenylamine | 2.84 | J1, U | 20.0 | ug/L | 2.00 | <20.0 | 142 | 60-140 | 3.51 | 40 |
| Pentachlorobenzene | 1.49 | U | 20.0 | ug/L | 2.00 | <20.0 | 74.5 | 60-140 | 3.66 | 40 |
| Pentachlorophenol | 4.14 | U | 5.00 | ug/L | 4.00 | <5.00 | 103 | 14-176 | 1.04 | 86 |
| Phenanthrene | 1.79 | U | 10.0 | ug/L | 2.00 | <10.0 | 89.5 | 54-120 | 4.20 | 39 |
| Phenol, Total | 27.7 | J1, L | 10.0 | ug/L | 4.00 | 28.2 | NR | 5-120 | 3.63 | 64 |
| Pyrene | 0.859 | J1, U | 10.0 | ug/L | 2.00 | <10.0 | 43.0 | 52-120 | 4.42 | 49 |
| Pyridine | <20.0 | J1, U | 20.0 | ug/L | 10.0 | <20.0 | | 60-140 | | 40 |
| Surrogate: 2,4,6-Tribromophenol-surr | | | 3.96 | ug/L | 4.00 | | 99.0 | 33.6-139 | | |
| Surrogate: 2-Fluorobiphenyl-surr | | | 2.10 | ug/L | 2.00 | | 105 | 32.2-138 | | |
| Surrogate: 2-Fluorophenol-surr | | | 3.21 | ug/L | 4.00 | | 80.3 | 32.7-137 | | |
| Surrogate: Nitrobenzene-d5-surr | | | 1.31 | ug/L | 2.00 | | 65.6 | 31.2-136 | | |
| Surrogate: Phenol-d5-surr | | | 3.30 | ug/L | 4.00 | | 82.4 | 28.9-155 | | |
| Surrogate: p-Terphenyl-d14-surr | | | 0.814 | ug/L | 2.00 | | 40.7 | 37.6-117 | | |
| Matrix Spike Dup (BHK1883-MSD2) | | Source: 2 | 4K2698-01RE2 | Pre | pared: 11/14/ | 2024 Analyze | d: 11/22/20 | 24 | | |
| 1,2-Diphenvlhvdrazine | 2 83 | | 3.75 | ua/L | 2.00 | 1.32 | 75.7 | 60-140 | 5.59 | 40 |
| Bis(2-ethylhexyl)phthalate | 11.0 | 0 | 7.50 | ug/L | 2.00 | 9.70 | 62.9 | 8-158 | 9.11 | 82 |
| Diethyl phthalate | 6.32 | | 2.50 | ug/L | 2.00 | 5.45 | 43.8 | 0-120 | 0.838 | 100 |
| Phenol, Total | 36.4 | J1 | 15.0 | ug/L | 4.00 | 31.1 | 134 | 5-120 | 3.61 | 64 |
| Surrogate: 2,4,6-Tribromophenol-surr | | | <i>3.66</i> | ug/L | 4.00 | | 91.5 | 33.6-139 | | |
| Surrogate: 2-Fluorobiphenyl-surr | | | 2.01 | ug/L | 2.00 | | 101 | 32.2-138 | | |
| Surrogate: 2-Fluorophenol-surr | | | 2.19 | ug/L | 4.00 | | 54.6 | 32.7-137 | | |
| Surrogate: Nitrobenzene-d5-surr | | | 1.70 | ug/L | 2.00 | | 85.0 | 31.2-136 | | |
| - Surrogate: Phenol-d5-surr | | | 3.35 | ug/L | 4.00 | | 83.8 | 28.9-155 | | |
| - Surrogate: p-Terphenvl-d14-surr | 5 | 5 | 2.82 | ug/L | 2.00 | | 141 | 37.6-117 | | |



Reported: 12/04/2024 10:38

Quality Control

(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

| Analyte | Result Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------|-------------|--------------------|-------|-----------------|------------------|-------------|----------------|-------|--------------|
| Batch: BHK1883 - EPA 625 LLE (Con | tinued) | | | | | | | | |
| Matrix Spike Dup (BHK1883-MSD3) | Source: 2 | 4K2698-01RE3 | Pre | epared: 11/14/2 | 2024 Analyze | d: 11/23/20 | 24 | | |
| 3,4-Methylphenol | 127 | 35.0 | ug/L | 8.00 | 121 | 72.0 | 60-140 | 0.938 | 40 |
| Surrogate: 2,4,6-Tribromophenol-surr | 5 | 6.55 | ug/L | 4.00 | | 164 | 33.6-139 | | |
| Surrogate: 2-Fluorophenol-surr | | 3.59 | ug/L | 4.00 | | 89.7 | 32.7-137 | | |
| Surrogate: Phenol-d5-surr | 5 | 7.17 | ug/L | 4.00 | | 179 | 28.9-155 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

Organics by GC

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|---------------------------------|----------|----------|-----------|-------|--------------|---------------|--------------|--------|------|-------|
| Analyte | Result Ç | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1540 - SM 6640 B | | | | | | | | | | |
| Blank (BHK1540-BLK1) | | | | Pre | pared: 11/13 | /2024 Analyze | ed: 11/20/20 | 24 | | |
| 2,4-D | <0.700 U | J | 0.700 | ug/L | | | | | | |
| Silvex (2,4,5-TP) | <0.300 U | J | 0.300 | ug/L | | | | | | |
| Surrogate: DCAA-surr | | | 18.8 | ug/L | 24.9 | | 75.3 | 70-130 | | |
| LCS (BHK1540-BS1) | | | | Pre | pared: 11/13 | /2024 Analyze | ed: 11/20/20 | 24 | | |
| 2,4-D | 3.83 | | 0.700 | ug/L | 5.15 | | 74.5 | 70-130 | | |
| Silvex (2,4,5-TP) | 3.56 | | 0.300 | ug/L | 5.00 | | 71.3 | 70-130 | | |
| Surrogate: DCAA-surr | | | 21.2 | ug/L | 25.0 | | 84.8 | 70-130 | | |
| LCS Dup (BHK1540-BSD1) | | | | Pre | pared: 11/13 | /2024 Analyze | ed: 11/20/20 | 24 | | |
| 2,4-D | 3.70 | | 0.700 | ug/L | 5.15 | | 71.8 | 70-130 | 3.62 | 30 |
| Silvex (2,4,5-TP) | 3.48 J | 1 | 0.300 | ug/L | 5.00 | | 69.6 | 70-130 | 2.38 | 30 |
| Surrogate: DCAA-surr | | | 20.2 | ug/L | 25.0 | | 80.7 | 70-130 | | |
| Matrix Spike (BHK1540-MS1) | S | ource: 2 | 4K1318-01 | Pre | pared: 11/13 | /2024 Analyze | ed: 11/20/20 | 24 | | |
| 2,4-D | 17.4 | | 0.940 | ug/L | 20.5 | <0.940 | 84.7 | 70-130 | | |
| Silvex (2,4,5-TP) | 15.9 | | 0.948 | ug/L | 19.9 | <0.948 | 80.0 | 70-130 | | |
| Surrogate: DCAA-surr | | | 111 | ug/L | 99.6 | | 111 | 70-130 | | |
| Matrix Spike Dup (BHK1540-MSD1) | S | ource: 2 | 4K1318-01 | Pre | pared: 11/13 | /2024 Analyze | ed: 11/20/20 | 24 | | |
| 2,4-D | 16.3 | | 0.943 | ug/L | 20.6 | <0.943 | 79.2 | 70-130 | 6.41 | 30 |
| Silvex (2,4,5-TP) | 15.0 | | 0.951 | ug/L | 20.0 | <0.951 | 75.0 | 70-130 | 6.10 | 30 |
| Surrogate: DCAA-surr | | | 105 | ug/L | 99.9 | | 105 | 70-130 | | |
| Patch BUK2245 - EDA 1657 SDE | | | | | | | | | | |
| Dalcii: DHK2243 - EFA 1037 SPE | | | | Dro | narad: 11/10 | /2024 Apolyza | d. 11/10/20 | 74 | | |
| Azinphos-methyl (Guthica) | -0 100 U | | 0 100 | Ple | pareu. 11/10 | /2024 Analyze | u. 11/19/20 | 27 | | |
| Chlornyrifos | <0.100 U | י ו | 0.100 | ug/L | | | | | | |
| Demeton | | י ו | 0.0501 | ug/L | | | | | | |
| Diazinon | | , I | 0.200 | ug/L | | | | | | |
| Malathion | <0.001 | J | 0.100 | ua/L | | | | | | |
| - | -0.100 0 | - | | | | | | | | |

0.100

0.0519

0.0377

ug/L

ug/L

ug/L

0.200

0.200

25.9

18.8

40-120

40-120

<0.100 U

5

5

Parathion, ethyl

Surrogate: Tributyl Phosphate-surr

Surrogate: Triphenyl Phosphate-surr



Reported:

12/04/2024 10:38

Quality Control (Continued)

Organics by GC (Continued)

| | | Reporting | | Spike | Source | | %REC | | RPD |
|-------------------------------------|----------------|------------|-------|--------------|---------------|-------------|--------|------|-------|
| Analyte | Result Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK2245 - EPA 1657 Sl | PE (Continued) | | | | | | | | |
| LCS (BHK2245-BS1) | | | Pre | pared: 11/18 | /2024 Analyze | d: 11/19/20 | 24 | | |
| Azinphos-methyl (Guthion) | 0.0470 J1 | 0.100 | ug/L | 0.250 | | 18.8 | 37-150 | | |
| Chlorpyrifos | 0.133 | 0.0500 | ug/L | 0.250 | | 53.4 | 48-150 | | |
| Demeton | 0.0683 | 0.200 | ug/L | 0.250 | | 27.3 | 16-150 | | |
| Diazinon | 0.148 | 0.500 | ug/L | 0.250 | | 59.4 | 50-150 | | |
| Malathion | 0.108 J1 | 0.100 | ug/L | 0.250 | | 43.3 | 50-150 | | |
| Parathion, ethyl | 0.127 | 0.100 | ug/L | 0.250 | | 50.9 | 50-150 | | |
| Surrogate: Tributyl Phosphate-surr | | 0.132 | ug/L | 0.200 | | 66.1 | 40-120 | | |
| Surrogate: Triphenyl Phosphate-surr | | 0.0871 | ug/L | 0.200 | | 43.6 | 40-120 | | |
| LCS Dup (BHK2245-BSD1) | | | Pre | pared: 11/18 | /2024 Analyze | d: 11/19/20 | 24 | | |
| Azinphos-methyl (Guthion) | 0.114 J1 | 0.100 | ug/L | 0.251 | | 45.6 | 37-150 | 83.3 | 40 |
| Chlorpyrifos | 0.203 J1 | 0.0501 | ug/L | 0.251 | | 81.0 | 48-150 | 41.3 | 40 |
| Demeton | 0.124 J1 | 0.200 | ug/L | 0.251 | | 49.4 | 16-150 | 57.8 | 40 |
| Diazinon | 0.224 J1 | 0.501 | ug/L | 0.251 | | 89.5 | 50-150 | 40.8 | 40 |
| Malathion | 0.171 J1 | 0.100 | ug/L | 0.251 | | 68.1 | 50-150 | 44.9 | 40 |
| Parathion, ethyl | 0.214 J1 | 0.100 | ug/L | 0.251 | | 85.3 | 50-150 | 50.7 | 40 |
| Surrogate: Tributyl Phosphate-surr | | 0.183 | ug/L | 0.200 | | 91.4 | 40-120 | | |
| Surrogate: Triphenyl Phosphate-surr | | 0.145 | ug/L | 0.200 | | 72.4 | 40-120 | | |
| Matrix Spike (BHK2245-MS1) | Source: | 24K2919-01 | Pre | pared: 11/18 | /2024 Analyze | d: 11/19/20 | 24 | | |
| Azinphos-methyl (Guthion) | 0.0633 | 0.100 | ug/L | 0.251 | <0.100 | 25.3 | 25-150 | | |
| Chlorpyrifos | 0.144 | 0.0502 | ug/L | 0.251 | <0.0502 | 57.3 | 25-150 | | |
| Demeton | 0.120 | 0.201 | ug/L | 0.251 | <0.201 | 47.9 | 25-150 | | |
| Diazinon | 0.164 | 0.502 | ug/L | 0.251 | <0.502 | 65.4 | 25-150 | | |
| Malathion | 0.123 | 0.100 | ug/L | 0.251 | <0.100 | 48.9 | 25-150 | | |
| Parathion, ethyl | 0.156 | 0.100 | ug/L | 0.251 | <0.100 | 62.0 | 25-150 | | |
| Surrogate: Tributyl Phosphate-surr | | 0.155 | ug/L | 0.201 | | 77.5 | 40-120 | | |
| Surrogate: Triphenyl Phosphate-surr | | 0.109 | ug/L | 0.201 | | 54.4 | 40-120 | | |



Reported: 12/04/2024 10:38

Quality Control (Continued)

Organics by GC (Continued)

| Analyte | Result Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|-------------------------------------|-------------|--------------------|-------|----------------|------------------|-------------|----------------|------|--------------|
| Batch: BHK2245 - EPA 1657 SPE | (Continued) | | | | | | | | |
| Matrix Spike Dup (BHK2245-MSD1) | Source: 2 | 4K2919-01 | Pre | pared: 11/18 | /2024 Analyzed | d: 11/19/20 | 24 | | |
| Azinphos-methyl (Guthion) | 0.0971 J1 | 0.100 | ug/L | 0.250 | <0.100 | 38.8 | 25-150 | 42.1 | 40 |
| Chlorpyrifos | 0.164 | 0.0501 | ug/L | 0.250 | <0.0501 | 65.5 | 25-150 | 13.3 | 40 |
| Demeton | 0.159 | 0.200 | ug/L | 0.250 | <0.200 | 63.5 | 25-150 | 27.9 | 40 |
| Diazinon | 0.185 | 0.501 | ug/L | 0.250 | <0.501 | 73.7 | 25-150 | 11.8 | 40 |
| Malathion | 0.142 | 0.100 | ug/L | 0.250 | <0.100 | 56.6 | 25-150 | 14.5 | 40 |
| Parathion, ethyl | 0.183 | 0.100 | ug/L | 0.250 | <0.100 | 73.1 | 25-150 | 16.2 | 40 |
| Surrogate: Tributyl Phosphate-surr | | 0.169 | ug/L | 0.200 | | 84.1 | 40-120 | | |
| Surrogate: Triphenyl Phosphate-surr | | 0.129 | ug/L | 0.200 | | 64.5 | 40-120 | | |

^{*} A = Accredited, N = Not Accredited or Accreditation not available



Reported:

12/04/2024 10:38

Quality Control (Continued)

Metals, Total

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|----------------------------|--------|------|--------------------|-------|----------------|------------------|----------|----------------|-----|--------------|
| Batch: BHK1143 - EPA 200.8 | | | | | | | | | | |
| Blank (BHK1143-BLK1) | | | | | Prepared & | Analyzed: 11 | /12/2024 | | | |
| Aluminum | <2.50 | U | 2.50 | ug/L | | | | | | |
| Antimony | <5.00 | U | 5.00 | ug/L | | | | | | |
| Barium | <3.00 | U | 3.00 | ug/L | | | | | | |
| Beryllium | <0.500 | U | 0.500 | ug/L | | | | | | |
| Cadmium | <1.00 | U | 1.00 | ug/L | | | | | | |
| Chromium | <3.00 | U | 3.00 | ug/L | | | | | | |
| Copper | <2.00 | U | 2.00 | ug/L | | | | | | |
| Lead | <0.500 | U | 0.500 | ug/L | | | | | | |
| Nickel | <2.00 | U | 2.00 | ug/L | | | | | | |
| Selenium | <5.00 | U | 5.00 | ug/L | | | | | | |
| Silver | <0.500 | U | 0.500 | ug/L | | | | | | |
| Thallium | <0.500 | U | 0.500 | ug/L | | | | | | |
| Zinc | <5.00 | U | 5.00 | ug/L | | | | | | |
| Blank (BHK1143-BLK2) | | | | | Prepared & | Analyzed: 11 | /12/2024 | | | |
| Arsenic | <0.500 | U | 0.500 | ug/L | | | | | | |
| LCS (BHK1143-BS1) | | | | | Prepared & | Analyzed: 11 | /12/2024 | | | |
| Aluminum | 261 | | 2.50 | ug/L | 250 | | 104 | 85-115 | | |
| Antimony | 107 | | 1.00 | ug/L | 100 | | 107 | 85-115 | | |
| Barium | 306 | | 3.00 | ug/L | 300 | | 102 | 85-115 | | |
| Beryllium | 20.2 | | 0.200 | ug/L | 20.0 | | 101 | 85-115 | | |
| Cadmium | 107 | | 1.00 | ug/L | 100 | | 107 | 85-115 | | |
| Chromium | 313 | | 3.00 | ug/L | 300 | | 104 | 85-115 | | |
| Copper | 107 | | 2.00 | ug/L | 100 | | 107 | 85-115 | | |
| Lead | 52.9 | | 0.500 | ug/L | 50.0 | | 106 | 85-115 | | |
| Nickel | 107 | | 2.00 | ug/L | 100 | | 107 | 85-115 | | |
| Selenium | 211 | | 5.00 | ug/L | 200 | | 106 | 85-115 | | |
| Silver | 53.3 | | 0.500 | ug/L | 50.0 | | 107 | 85-115 | | |
| Thallium | 52.4 | | 0.500 | ug/L | 50.0 | | 105 | 85-115 | | |
| Zinc | 207 | | 2.00 | ug/L | 200 | | 103 | 85-115 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

Metals, Total (Continued)

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|----------------------------|-------------|-----------|--------------------|-------|----------------|------------------|----------|----------------|-------|--------------|
| Batch: BHK1143 - EPA 200.8 | (Continued) | | | | | | | | | |
| LCS (BHK1143-BS2) | () | | | | Prepared & | Analvzed: 11 | /12/2024 | | | |
| Arsenic | 52.3 | | 0.500 | ug/L | 50.0 | | 105 | 85-115 | | |
| Duplicate (BHK1143-DUP1) | | Source: 2 | 24K1892-02 | | Prepared & | Analyzed: 11 | /12/2024 | | | |
| Aluminum | 11.7 | | 2.50 | ug/L | | 11.8 | | | 0.928 | 20 |
| Antimony | 0.780 | U | 1.00 | ug/L | | 0.802 | | | 2.78 | 20 |
| Barium | 130 | | 3.00 | ug/L | | 131 | | | 0.445 | 20 |
| Beryllium | <0.200 | U | 0.200 | ug/L | | <0.200 | | | | 20 |
| Cadmium | <1.00 | U | 1.00 | ug/L | | <1.00 | | | | 20 |
| Chromium | 0.535 | U | 3.00 | ug/L | | 0.552 | | | 3.13 | 20 |
| Copper | 4.84 | | 2.00 | ug/L | | 4.90 | | | 1.19 | 20 |
| Lead | 0.0530 | U | 0.500 | ug/L | | 0.0620 | | | 15.7 | 20 |
| Nickel | 1.76 | U | 2.00 | ug/L | | 1.78 | | | 1.58 | 20 |
| Selenium | <5.00 | U | 5.00 | ug/L | | <5.00 | | | | 20 |
| Silver | <0.500 | U | 0.500 | ug/L | | 0.0120 | | | 200 | 20 |
| Thallium | <0.500 | U | 0.500 | ug/L | | <0.500 | | | | 20 |
| Zinc | 18.4 | | 2.00 | ug/L | | 18.7 | | | 1.26 | 20 |
| Duplicate (BHK1143-DUP2) | | Source: 2 | 24K2035-02 | | Prepared & | Analyzed: 11 | /12/2024 | | | |
| Aluminum | 7.44 | J1 | 2.50 | ug/L | | 13.1 | | | 55.1 | 20 |
| Antimony | 0.594 | U | 1.00 | ug/L | | 0.601 | | | 1.17 | 20 |
| Barium | 116 | | 3.00 | ug/L | | 118 | | | 1.79 | 20 |
| Beryllium | <0.200 | U | 0.200 | ug/L | | <0.200 | | | | 20 |
| Cadmium | <1.00 | U | 1.00 | ug/L | | <1.00 | | | | 20 |
| Chromium | 0.543 | U | 3.00 | ug/L | | 0.611 | | | 11.8 | 20 |
| Copper | 3.35 | | 2.00 | ug/L | | 3.30 | | | 1.50 | 20 |
| Lead | 0.0560 | U | 0.500 | ug/L | | 0.0570 | | | 1.77 | 20 |
| Nickel | 1.49 | U | 2.00 | ug/L | | 1.50 | | | 1.27 | 20 |
| Selenium | <5.00 | U | 5.00 | ug/L | | 0.402 | | | 200 | 20 |
| Silver | <0.500 | U | 0.500 | ug/L | | < 0.500 | | | | 20 |
| Thallium | <0.500 | U | 0.500 | ug/L | | < 0.500 | | | | 20 |
| Zinc | 34.7 | | 2.00 | ug/L | | 36.1 | | | 4.01 | 20 |



Reported:

12/04/2024 10:38

Quality Control (Continued)

Metals, Total (Continued)

| Analyte | Posult Qual | Reporting | Unite | Spike | Source | %PEC | %REC | ספס | RPD Limit |
|---------------------------------|-------------|---------------|-------|------------|--------------|----------|---------|------|--------------|
| Analyte | Result Qual | Linit | Units | Level | Result | /IIIICC | LITTICS | RID | Linnic |
| Batch: BHK1143 - EPA 200.8 (Co. | ntinued) | | | | | | | | |
| Duplicate (BHK1143-DUP3) | Sourc | e: 24K1892-02 | | Prepared 8 | Analyzed: 11 | /12/2024 | | | |
| Arsenic | 0.818 | 0.500 | ug/L | | 0.818 | | | 0.00 | 20 |
| Duplicate (BHK1143-DUP4) | Sourc | e: 24K2035-02 | | Prepared 8 | Analyzed: 11 | /12/2024 | | | |
| Arsenic | 1.64 | 0.500 | ug/L | | 1.63 | | | 1.10 | 20 |
| Matrix Spike (BHK1143-MS1) | Sourc | e: 24K1892-02 | | Prepared 8 | Analyzed: 11 | /12/2024 | | | |
| Aluminum | 261 | 2.50 | ug/L | 250 | 11.8 | 99.7 | 75-125 | | |
| Antimony | 109 | 1.00 | ug/L | 100 | 0.802 | 108 | 75-125 | | |
| Barium | 443 | 3.00 | ug/L | 300 | 131 | 104 | 75-125 | | |
| Beryllium | 18.7 | 0.200 | ug/L | 20.0 | <0.200 | 93.7 | 75-125 | | |
| Cadmium | 103 | 1.00 | ug/L | 100 | <1.00 | 103 | 75-125 | | |
| Chromium | 302 | 3.00 | ug/L | 300 | 0.552 | 101 | 75-125 | | |
| Copper | 104 | 2.00 | ug/L | 100 | 4.90 | 99.2 | 75-125 | | |
| Lead | 50.8 | 0.500 | ug/L | 50.0 | 0.0620 | 101 | 75-125 | | |
| Nickel | 99.5 | 2.00 | ug/L | 100 | 1.78 | 97.7 | 75-125 | | |
| Selenium | 197 | 5.00 | ug/L | 200 | <5.00 | 98.3 | 75-125 | | |
| Silver | 51.7 | 0.500 | ug/L | 50.0 | 0.0120 | 103 | 75-125 | | |
| Thallium | 50.7 | 0.500 | ug/L | 50.0 | <0.500 | 101 | 75-125 | | |
| Zinc | 215 | 2.00 | ug/L | 200 | 18.7 | 98.0 | 75-125 | | |
| Matrix Spike (BHK1143-MS2) | Sourc | e: 24K2035-02 | | Prepared 8 | Analyzed: 11 | /12/2024 | | | |
| Aluminum | 256 | 2.50 | ug/L | 250 | 13.1 | 97.3 | 75-125 | | |
| Antimony | 107 | 1.00 | ug/L | 100 | 0.601 | 106 | 75-125 | | |
| Barium | 427 | 3.00 | ug/L | 300 | 118 | 103 | 75-125 | | |
| Beryllium | 19.1 | 0.200 | ug/L | 20.0 | <0.200 | 95.5 | 75-125 | | |
| Cadmium | 104 | 1.00 | ug/L | 100 | <1.00 | 104 | 75-125 | | |
| Chromium | 308 | 3.00 | ug/L | 300 | 0.611 | 102 | 75-125 | | |
| Copper | 105 | 2.00 | ug/L | 100 | 3.30 | 102 | 75-125 | | |
| Lead | 51.0 | 0.500 | ug/L | 50.0 | 0.0570 | 102 | 75-125 | | |
| Nickel | 101 | 2.00 | ug/L | 100 | 1.50 | 99.8 | 75-125 | | |
| Selenium | 202 | 5.00 | ug/L | 200 | 0.402 | 101 | 75-125 | | |
| Silver | 52.7 | 0.500 | ug/L | 50.0 | < 0.500 | 105 | 75-125 | | |
| Thallium | 50.7 | 0.500 | ug/L | 50.0 | < 0.500 | 101 | 75-125 | | |
| Zinc | 232 | 2.00 | ug/L | 200 | 36.1 | 97.7 | 75-125 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

Metals, Total (Continued)

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %RFC | %REC | RPD | RPD Limit |
|---------------------------------|-----------|-----------|--------------------|-------|----------------|------------------|--------------|--------|------|--------------|
| | | | | 01110 | 2010. | iteout | 70.120 | 2 | 14.5 | 2 |
| Batch: BHK1143 - EPA 200.8 (Co | ontinued) | | | | | | | | | |
| Matrix Spike (BHK1143-MS3) | | Source: 2 | 24K1892-02 | | Prepared 8 | Analyzed: 11 | /12/2024 | | | |
| Arsenic | 55.7 | | 0.500 | ug/L | 50.0 | 0.818 | 110 | 75-125 | | |
| Matrix Spike (BHK1143-MS4) | | Source: 2 | 24K2035-02 | | Prepared 8 | k Analyzed: 11 | /12/2024 | | | |
| Arsenic | 54.4 | | 0.500 | ug/L | 50.0 | 1.63 | 106 | 75-125 | | |
| Retails RUVICOE ERAICOL | | | | | | | | | | |
| BATCH: BHK1635 - EPA 1631 | | | | | | | | | | |
| Blank (BHK1635-BLK1) | | | | Pr | epared: 11/13 | /2024 Analyze | ed: 11/14/20 | 24 | | |
| Mercury | <0.00500 | U | 0.00500 | ug/L | | | | | | |
| Blank (BHK1635-BLK2) | | | | Pr | epared: 11/13 | /2024 Analyze | ed: 11/14/20 | 24 | | |
| Mercury | <0.00500 | U | 0.00500 | ug/L | | | | | | |
| Blank (BHK1635-BLK3) | | | | Pr | epared: 11/13 | /2024 Analyze | ed: 11/14/20 | 24 | | |
| Mercury | <0.00500 | U | 0.00500 | ug/L | | | | | | |
| Matrix Spike (BHK1635-MS1) | | Source: 2 | 24K0030-02 | Pr | epared: 11/13 | /2024 Analyze | ed: 11/14/20 | 24 | | |
| Mercury | 0.0421 | | 0.00526 | ug/L | 0.0526 | <0.00526 | 80.0 | 71-125 | | |
| Matrix Spike (BHK1635-MS2) | | Source: 2 | 24K1892-03 | Pr | epared: 11/13 | /2024 Analyze | ed: 11/14/20 | 24 | | |
| Mercury | 0.0399 | | 0.00526 | ug/L | 0.0526 | <0.00526 | 75.8 | 71-125 | | |
| Matrix Spike Dup (BHK1635-MSD1) | | Source: 2 | 24K0030-02 | Pr | epared: 11/13 | /2024 Analvze | ed: 11/14/20 | 24 | | |
| Mercury | 0.0405 | | 0.00526 | ug/L | 0.0526 | <0.00526 | 77.0 | 71-125 | 3.84 | 24 |
| Matrix Spike Dup (BHK1635-MSD2) | | Source: 2 | 24K1892-03 | Pr | epared: 11/13 | /2024 Analyze | ed: 11/14/20 | 24 | | |
| Mercury | 0.0404 | | 0.00526 | ug/L | 0.0526 | <0.00526 | 76.7 | 71-125 | 1.23 | 24 |
| | | | | | | | | | | |



Reported: 12/04/2024 10:38

12/04/2024

Quality Control (Continued)

Metals, Dissolved

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---------------------------------|--------|--------------------|--------------------|-------|----------------|------------------|----------|----------------|------|--------------|
| Batch: BHK3340 - Cr VI | | | | | | | | | | |
| Matrix Spike (BHK3340-MS1) | : | Source: 24K2919-01 | | | Prepared & | Analyzed: 11 | | | | |
| Chromium (VI) | 97.9 | J1 | 3.00 | ug/L | 250 | 2.34 | 38.2 | 70-130 | | |
| Matrix Spike Dup (BHK3340-MSD1) | : | Source: 24K2919-01 | | | Prepared & | Analyzed: 11 | /26/2024 | | | |
| Chromium (VI) | 105 | J1 | 3.00 | ug/L | 250 | 2.34 | 40.9 | 70-130 | 6.70 | 20 |

^{*} A = Accredited, N = Not Accredited or Accreditation not available



Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry

| | | | Reporting | | Spike | Source | | %REC | | RPD |
|----------------------------|--------|------------|-----------|-------|------------|--------------|----------|--------|-------|-------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK0782 - EPA 300.0 | | | | | | | | | | |
| Duplicate (BHK0782-DUP1) | | Source: 24 | K1719-02 | | Prepared 8 | Analyzed: 11 | l/7/2024 | | | |
| Nitrite as N | 195 | | 50.0 | ug/L | | 217 | | | 10.7 | 15 |
| Fluoride | 0.322 | | 0.250 | mg/L | | 0.314 | | | 2.52 | 15 |
| Chloride | 217 | | 10.0 | mg/L | | 219 | | | 0.774 | 15 |
| Sulfate | 88.0 | | 10.0 | mg/L | | 88.8 | | | 0.848 | 15 |
| Nitrate as N | 61600 | | 1000 | ug/L | | 62400 | | | 1.16 | 15 |
| Duplicate (BHK0782-DUP2) | | Source: 24 | K1969-02 | | Prepared 8 | Analyzed: 11 | l/7/2024 | | | |
| Sulfate | 86.7 | | 10.0 | mg/L | | 89.3 | | | 2.89 | 15 |
| Chloride | 205 | | 10.0 | mg/L | | 208 | | | 1.86 | 15 |
| Nitrite as N | <50.0 | U | 50.0 | ug/L | | <50.0 | | | | 15 |
| Nitrate as N | 62000 | | 1000 | ug/L | | 64000 | | | 3.10 | 15 |
| Fluoride | 0.294 | | 0.250 | mg/L | | 0.289 | | | 1.72 | 15 |
| MRL Check (BHK0782-MRL1) | | | | | Prepared 8 | Analyzed: 11 | L/7/2024 | | | |
| Sulfate | 1.21 | | 1.00 | mg/L | 1.00 | | 121 | 50-150 | | |
| Fluoride | 0.319 | | 0.250 | mg/L | 0.250 | | 128 | 50-150 | | |
| Chloride | 1.12 | | 1.00 | mg/L | 1.00 | | 112 | 50-150 | | |
| Nitrite as N | 59.0 | | 50.0 | ug/L | 50.0 | | 118 | 50-150 | | |
| Nitrate as N | 128 | | 100 | ug/L | 100 | | 128 | 50-150 | | |
| Matrix Spike (BHK0782-MS1) | | Source: 24 | K1719-02 | | Prepared 8 | Analyzed: 11 | l/7/2024 | | | |
| Sulfate | 132 | J1 | 11.1 | mg/L | 22.2 | 88.8 | 194 | 80-120 | | |
| Nitrate as N | 65700 | J1 | 1110 | ug/L | 2220 | 62400 | 152 | 80-120 | | |
| Fluoride | 5.53 | | 0.278 | mg/L | 5.56 | 0.314 | 93.8 | 80-120 | | |
| Chloride | 240 | J1 | 11.1 | mg/L | 11.1 | 219 | 190 | 80-120 | | |
| Nitrite as N | 1330 | | 55.6 | ug/L | 1110 | 217 | 100 | 80-120 | | |
| Matrix Spike (BHK0782-MS2) | | Source: 24 | K1969-02 | | Prepared 8 | Analyzed: 11 | L/7/2024 | | | |
| Nitrite as N | 1140 | | 50.0 | ug/L | 1000 | <50.0 | 114 | 80-120 | | |
| Sulfate | 120 | J1 | 10.0 | mg/L | 20.0 | 89.3 | 152 | 80-120 | | |
| Fluoride | 5.04 | | 0.250 | mg/L | 5.00 | 0.289 | 95.0 | 80-120 | | |
| Chloride | 213 | J1 | 10.0 | mg/L | 10.0 | 208 | 43.0 | 80-120 | | |
| Nitrate as N | 61000 | J1 | 1000 | ug/L | 2000 | 64000 | NR | 80-120 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry (Continued)

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|-----------------------------|--------|-----------|--------------------|---------------------|----------------|------------------|---------------|----------------|------|--------------|
| Batch: BHK0903 - Alkalinity | | | | | | | | | | |
| Blank (BHK0903-BLK1) | | | | | Prepared a | & Analyzed: | 11/8/2024 | | | |
| Conductivity | <2.00 | U | 2.00 | umhos/cm @ 25 °C | | | | | | |
| LCS (BHK0903-BS1) | | | | | Prepared a | & Analyzed: | 11/8/2024 | | | |
| Conductivity | 1400 | | | umhos/cm @ 25 °C | 1410 | | 99.4 | 90-110 | | |
| WCS (BHK0903-BS2) | | | | | Prepared a | & Analyzed: | 11/8/2024 | | | |
| Conductivity | 505 | | | umhos/cm @ 25 °C | 500 | | 101 | 90-110 | | |
| LCS (BHK0903-BS4) | | | | | Prepared a | & Analyzed: | 11/8/2024 | | | |
| Alkalinity as CaCO3 | 104 | | | mg/L | 100 | | 104 | 90-110 | | |
| Duplicate (BHK0903-DUP1) | | Source: 2 | 4K0801-01 | | Prepared a | & Analyzed: | 11/8/2024 | | | |
| Alkalinity as CaCO3 | 105 | J1 | 10.0 | mg/L | | 78.1 | | | 29.6 | 15 |
| Conductivity | 3820 | | 2.00 | umhos/cm @ 25 °C | | 3770 | | | 1.32 | 15 |
| Duplicate (BHK0903-DUP2) | | Source: 2 | 4K0026-01 | | Prepared a | & Analyzed: | 11/8/2024 | | | |
| Conductivity | 831 | | 2.00 | umhos/cm @ 25 °C | | 816 | | | 1.82 | 15 |
| Alkalinity as CaCO3 | 165 | | 10.0 | mg/L | | 161 | | | 2.67 | 15 |
| Batch: BHK0906 - TSS | | | | | | | | | | |
| Blank (BHK0906-BLK1) | | | | Pre | pared: 11/8 | 2024 Analyz | ed: 11/11/202 | 24 | | |
| Residue-nonfilterable (TSS) | <1.00 | U | 1.00 | mg/L | | | | | | |
| LCS (BHK0906-BS1) | | | | Pre | pared: 11/8, | /2024 Analyz | ed: 11/11/202 | 24 | | |
| Residue-nonfilterable (TSS) | 99.1 | | 1.00 | mg/L | 100 | | 99.1 | 85-115 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry (Continued)

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|----------------------------------|--------|------------|--------------------|-------|----------------|------------------|--------------|----------------|------|--------------|
| Batch: BHK0906 - TSS (Continued) | | | | | | | | | | |
| Duplicate (BHK0906-DUP1) | | Source: 24 | K0646-01 | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/11/2024 | | | |
| Residue-nonfilterable (TSS) | 2.95 | | 1.00 | mg/L | | 2.74 | | | 7.41 | 10 |
| Duplicate (BHK0906-DUP2) | | Source: 24 | K1965-01 | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/11/2024 | | | |
| Residue-nonfilterable (TSS) | 4.42 | | 1.00 | mg/L | | 4.21 | | | 4.88 | 10 |
| Batch: BHK0910 - TDS | | | | | | | | | | |
| Blank (BHK0910-BLK1) | | | | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/11/2024 | | | |
| Residue-filterable (TDS) | <10.0 | U | 10.0 | mg/L | | , | | | | |
| LCS (BHK0910-BS1) | | | | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/11/2024 | | | |
| Residue-filterable (TDS) | 150 | | 10.0 | mg/L | 150 | | 100 | 90-110 | | |
| Duplicate (BHK0910-DUP1) | | Source: 24 | K1892-02 | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/11/2024 | | | |
| Residue-filterable (TDS) | 498 | | 10.0 | mg/L | - | 488 | | | 2.03 | 10 |
| Batch: BHK0913 - CBOD-5210 | | | | | | | | | | |
| LCS (BHK0913-BS1) | | | | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/13/2024 | | | |
| Carbonaceous BOD (CBOD) | 213 | | | mg/L | 198 | | 108 | 85-115 | | |
| Duplicate (BHK0913-DUP1) | | Source: 24 | K1903-02 | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/13/2024 | | | |
| Carbonaceous BOD (CBOD) | 4.17 | | 2.40 | mg/L | | 4.39 | | | 5.23 | 40 |
| Duplicate (BHK0913-DUP2) | | Source: 24 | K1946-02 | Pr | epared: 11/8/2 | 2024 Analyzed | : 11/13/2024 | | | |
| Carbonaceous BOD (CBOD) | 3.34 | | 2.40 | mg/L | | 3.59 | | | 6.98 | 40 |



Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry (Continued)

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|-------------------------------------|-------------------------------------------------------------|------|--------------------|------------------------------------------|----------------|------------------|---------|----------------|------|--------------|
| Batch: BHK0913 - CBOD-5210 (Col | ntinued |) | | | | | | | | |
| Duplicate (BHK0913-DUP3) | Source: 24K1830-01 | | | Prepared: 11/8/2024 Analyzed: 11/13/2024 | | | | 24 | | |
| Carbonaceous BOD (CBOD) | 3.34 | | 2.40 | mg/L | | 4.11 | | | 20.6 | 40 |
| Duplicate (BHK0913-DUP4) | Source: 24K0360-01 | | | Prepared: 11/8/2024 Analyzed: 11/13/2024 | | | | | | |
| Carbonaceous BOD (CBOD) | 4.42 | | 2.40 | mg/L | | 4.82 | | | 8.48 | 40 |
| Duplicate (BHK0913-DUP5) | Source: 24K1909-01 Prepared: 11/8/2024 Analyzed: 11/13/2024 | | | | | | | | | |
| Carbonaceous BOD (CBOD) | 4.75 | | 2.40 | mg/L | , ,, | 6.24 | | | 27.2 | 40 |
| Duplicate (BHK0913-DUP6) | Source: 24K1907-02 Prepared: 11/8/2024 Analyzed: 11/13/20 | | | | | 24 | | | | |
| Carbonaceous BOD (CBOD) | 4.56 | | 2.40 | mg/L | ··· · · , ·, | 4.88 | , , , | | 6.77 | 40 |
| Duplicate (BHK0913-DUP7) | Source: 24K1905-02 | | | Prepared: 11/8/2024 Analyzed: 11/13/2024 | | | | | | |
| Carbonaceous BOD (CBOD) | 8.00 | | 2.40 | mg/L | | 9.81 | | | 20.4 | 40 |
| Batch: BHK0915 - EPA 1664 | | | | | | | | | | |
| Blank (BHK0915-BLK1) | | | | | Prepared 8 | Analyzed: 11 | /8/2024 | | | |
| n-Hexane Extractable Material (O&G) | <5.00 | U | 5.00 | mg/L | | | | | | |
| LCS (BHK0915-BS1) | | | | | Prepared 8 | Analyzed: 11 | /8/2024 | | | |
| n-Hexane Extractable Material (O&G) | 41.0 | | 5.00 | mg/L | 40.0 | - | 102 | 77.5-114.5 | | |
| LCS Dup (BHK0915-BSD1) | | | | | Prepared 8 | Analyzed: 11 | /8/2024 | | | |
| n-Hexane Extractable Material (O&G) | 36.1 | | 5.00 | mg/L | 40.0 | | 90.4 | 77.5-114.5 | 12.6 | 20 |
| Matrix Spike (BHK0915-MS1) | Source: 24K1910-04 | | | Prepared & Analyzed: 11/8/2024 | | | | | | |
| n-Hexane Extractable Material (O&G) | 25.3 | J1 | 5.00 | mg/L | 40.0 | <5.00 | 63.2 | 77.5-114.5 | | |



Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry (Continued)

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---------------------------------|------------------------------------------|-------|--------------------|------------------------------------------|------------------------------------------|------------------|------|----------------|-------|--------------|
| Batch: BHK0917 - TKN T | | | | | | | | | | |
| Blank (BHK0917-BLK1) | | | | | Prepared: 11/8/2024 Analyzed: 11/11/2024 | | | | | |
| Total Kjeldahl Nitrogen - (TKN) | <1.00 | U | 1.00 | mg/L | | | | | | |
| LCS (BHK0917-BS1) | Prepared: 11/8/2024 Analyzed: 11/11/2024 | | | | | | | | | |
| Total Kjeldahl Nitrogen - (TKN) | 2.58 | | 1.00 | mg/L | 2.60 | | 99.1 | 85-115 | | |
| Duplicate (BHK0917-DUP1) | Source: 24K0360-01 | | | Prepared: 11/8/2024 Analyzed: 11/11/2024 | | | | | | |
| Total Kjeldahl Nitrogen - (TKN) | <1.00 | J1, U | 1.00 | mg/L | | 0.224 | | | 200 | 20 |
| Matrix Spike (BHK0917-MS1) | Source: 24K0360-01 | | | Prepared: 11/8/2024 Analyzed: 11/11/2024 | | | | | | |
| Total Kjeldahl Nitrogen - (TKN) | 3.02 | J1 | 1.00 | mg/L | 4.00 | 0.224 | 70.0 | 85-115 | | |
| Batch: BHK1044 - EPA 300.0 | | | | | | | | | | |
| Duplicate (BHK1044-DUP1) | Source: 24J0979-01 | | | Prepared & Analyzed: 11/8/2024 | | | | | | |
| Chloride | 32.7 | | 1.00 | mg/L | • | 32.8 | | | 0.162 | 15 |
| Duplicate (BHK1044-DUP2) | Source: 24J0979-02 | | | Prepared & Analyzed: 11/9/2024 | | | | | | |
| Chloride | 33.8 | | 1.00 | mg/L | - | 33.7 | | | 0.151 | 15 |
| MRL Check (BHK1044-MRL1) | | | | | Prepared & Analyzed: 11/8/2024 | | | | | |
| Chloride | 0.661 | U | 1.00 | mg/L | 1.00 | | 66.1 | 50-150 | | |
| Matrix Spike (BHK1044-MS1) | Source: 24J0979-01 | | | Prepared & Analyzed: 11/8/2024 | | | | | | |
| Chloride | 44.9 | | 1.11 | mg/L | 11.1 | 32.8 | 110 | 80-120 | | |
| Matrix Spike (BHK1044-MS2) | Source: 24J0979-02 | | | | Prepared & Analyzed: 11/9/2024 | | | | | |
| Chloride | 46.0 | | 1.11 | mg/L | 11.1 | 33.7 | 111 | 80-120 | | |


Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry (Continued)

| | | 0 | Reporting | | Spike | Source | | %REC | | RPD |
|---------------------------------|--------------------|------------|------------|---------------|---------------------------------|---------------|----------|--------|------|-------|
| Analyte | Result | Qual | Limit | Units | Level | Result | %REC | Limits | RPD | Limit |
| Batch: BHK1058 - NH3-N SEAL-350 | 0.1 | | | | | | | | | |
| Matrix Spike (BHK1058-MS1) | | Source: 24 | K1890-01 | | Prepared & | Analyzed: 11 | /11/2024 | | | |
| Ammonia as N | 0.267 | | 0.0401 | mg/L | 0.200 | 0.0720 | 97.1 | 90-110 | | |
| Matrix Spike (BHK1058-MS2) | | Source: 24 | K1887-01 | | Prepared & | Analyzed: 11, | /11/2024 | | | |
| Ammonia as N | 0.170 | J1 | 0.0401 | mg/L | 0.200 | <0.0401 | 85.0 | 90-110 | | |
| Matrix Spike Dup (BHK1058-MSD1) | | Source: 24 | K1890-01 | | Prepared & Analyzed: 11/11/2024 | | | | | |
| Ammonia as N | 0.267 | | 0.0401 | mg/L | 0.200 | 0.0720 | 97.1 | 90-110 | 0.00 | 20 |
| Matrix Spike Dup (BHK1058-MSD2) | Source: 24K1887-01 | | Prepared & | Analyzed: 11, | /11/2024 | | | | | |
| Ammonia as N | 0.164 | J1 | 0.0401 | mg/L | 0.200 | <0.0401 | 82.0 | 90-110 | 3.59 | 20 |

Batch: BHK1083 - Phosphorus EPA 365.1

| LCS (BHK1083-BS1) | | Prepared: 11/8/2024 Analyzed: 11/11/2024 | | | | | | | |
|---------------------------------|------------|------------------------------------------|--------------|--------------|--------------|--------------|--------|-------|----|
| Total Phosphorus | 0.252 | 0.0100 | mg/L | 0.250 | | 101 | 90-110 | | |
| Matrix Spike (BHK1083-MS1) | Source: 24 | IK2118-05 | Pre | pared: 11/8/ | 2024 Analyze | d: 11/11/202 | 24 | | |
| Total Phosphorus | 19.4 | 0.500 | mg/L | 12.5 | 6.80 | 101 | 80-120 | | |
| Matrix Spike (BHK1083-MS2) | łK1964-04 | Pre | pared: 11/8/ | 2024 Analyze | d: 11/11/202 | 24 | | | |
| Total Phosphorus | 25.6 | 0.500 | mg/L | 12.5 | 13.0 | 101 | 80-120 | | |
| Matrix Spike Dup (BHK1083-MSD1) | Source: 24 | IK2118-05 | Pre | pared: 11/8/ | 2024 Analyze | d: 11/11/202 | 24 | | |
| Total Phosphorus | 19.3 | 0.500 | mg/L | 12.5 | 6.80 | 99.7 | 80-120 | 0.673 | 20 |
| Matrix Spike Dup (BHK1083-MSD2) | Source: 24 | łK1964-04 | Pre | pared: 11/8/ | 2024 Analyze | d: 11/11/202 | 24 | | |
| Total Phosphorus | 25.5 | 0.500 | mg/L | 12.5 | 13.0 | 99.9 | 80-120 | 0.353 | 20 |

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



Reported:

12/04/2024 10:38

Quality Control (Continued)

General Chemistry (Continued)

| Analyte | Result Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---------------------------------|-------------|--------------------|-------|---------------------------------|------------------|----------|----------------|------|--------------|
| Batch: BHK1244 - CN-4500 | | | | | | | | | |
| Blank (BHK1244-BLK1) | | | | Prepared 8 | Analyzed: 11 | /11/2024 | | | |
| Total Cyanide | <10.0 U | 10.0 | ug/L | | | | | | |
| LCS (BHK1244-BS1) | | | | Prepared 8 | Analyzed: 11 | /11/2024 | | | |
| Total Cyanide | 197 | 10.0 | ug/L | 200 | | 98.3 | 90-110 | | |
| QCS (BHK1244-BS2) | | | | Prepared 8 | Analyzed: 11 | /11/2024 | | | |
| Total Cyanide | 196 | 10.0 | ug/L | 200 | | 97.8 | 90-110 | | |
| MRL Check (BHK1244-MRL1) | | | | Prepared 8 | Analyzed: 11 | /11/2024 | | | |
| Total Cyanide | 9.64 U | 10.0 | ug/L | 10.0 | | 96.4 | 50-150 | | |
| Matrix Spike (BHK1244-MS1) | Source: 2 | Source: 24K1776-01 | | Prepared & Analyzed: 11/11/2024 | | | | | |
| Total Cyanide | 179 | 10.0 | ug/L | 200 | <10.0 | 89.7 | 80-120 | | |
| Matrix Spike Dup (BHK1244-MSD1) | Source: 2 | 24K1776-01 | | Prepared 8 | Analyzed: 11 | /11/2024 | | | |
| Total Cyanide | 185 | 10.0 | ug/L | 200 | <10.0 | 92.7 | 80-120 | 3.23 | 20 |

^{*} A = Accredited, N = Not Accredited or Accreditation not available



Reported:

12/04/2024 10:38

Quality Control

(Continued)

Microbiology

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|-----------------------------------|--------------------|-------------|--------------------|-----------------|-----------------|------------------|--------------|----------------|------|--------------|
| Batch: BHK0844 - TC EC Quantitray | | | | | | | | | | |
| Blank (BHK0844-BLK1) | | | | I | Prepared: 11/7/ | 2024 Analyze | d: 11/8/2024 | | | |
| Escherichia coli (E. coli) | <1.00 | U | 1.00 | MPN/100 mL | | | | | | |
| Duplicate (BHK0844-DUP1) | | Source: 24K | 1892-01 | 1 | Prepared: 11/7/ | 2024 Analyze | d: 11/8/2024 | | | |
| Escherichia coli (E. coli) | 2.00 | J1 | 1.00 | MPN/100 mL | | 8.60 | | | 125 | 200 |
| Batch: BHK0845 - ENT Quantitray | | | | | | | | | | |
| Blank (BHK0845-BLK1) | | | | I | Prepared: 11/7/ | 2024 Analyze | d: 11/8/2024 | | | |
| Enterococci | <1.00 | U | 1.00 | MPN/100 mL | | | | | | |
| Duplicate (BHK0845-DUP1) | Source: 24K1892-01 | | I | Prepared: 11/7/ | 2024 Analyze | d: 11/8/2024 | | | | |
| Enterococci | 1.00 | | 1.00 | MPN/100 mL | | 2.00 | | | 66.7 | 200 |

^{*} A = Accredited, N = Not Accredited or Accreditation not available



Reported: 12/04/2024 10:38

Sample Condition Checklist

Work Order: 24K1723

Check Points

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

Work Order: 24K1724

Check Points

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

Work Order: 24K1892

Check Points

| No | Custody Soals |
|-----|---------------------------|
| NU | Custouy Seals |
| Yes | Containers Intact |
| Yes | COC/Labels Agree |
| Yes | Received On Ice |
| Yes | Appropriate Containers |
| Yes | Appropriate Sample Volume |
| Yes | Coolers Intact |
| | |

Yes Samples Accepted



Work Order: 24K2720

Reported:

12/04/2024 10:38

Check Points

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

Work Order: 24K2919

Check Points

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

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



Reported: 12/04/2024 10:38

Term and Qualifier Definitions

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



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



TCEQ TX-C24-00185

• •

| Lab PM : Aundra Noe | Project Name : City of Tomball - Outfall 001 3 Part Grab Comp | 1 Schedule Comments: |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| City of Tomball James Linney 501 James Street Tomball, TX 77375 Phone: 281-351-2570 | Project Comments: DAY OF GRAB 1 - TAKE GLASS RECEPTACLE & PLACE IN SAMPLER COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|------------|-------------------------|--------------------|----------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|
| 24K1723-01 | 18 Mohm DI | | 11/6/2024 725 | AQ Grab | A Glass 4oz Boston Round | LL Hg-1631 BrCl | |
| 24K1723-02 | Outfall 001 3 Part Grab | | 11/6/2024 | AQ Grab | A Glass VOA 40mL HCI pH<2 B Glass VOA 40mL HCI pH<2 C Glass VOA 40mL HCI pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 40z Boston Round | LL Hg-1631 BrCl Composite VOA 4°C | |

| Field Remarks: | | Lab Preservation: H2 (Circle and Write ID Below) | 2SO4 HNO3 Na | OH Other: | |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------|---------------------------------|----------------|
| Sampler (Signature) | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | | Date/Time |
| Print Name FIANCISCO CANFICLAR Z | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | | Date/Time |
| Affiliation | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | UMC | Date/Time 1430 |
| Custody Seal : Yes / No COC Container Intact : Yes / No Appro | Labels Agree: Yes / No Appropriate Volume: Yes opriate Containers: Yes / No Coolers Intact: Yes | / No R s / No S | eceived on Ice: Yes / No amples Accepted: Yes / No | Temperature: Thermometer ID: | °C |

Tomball

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



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



TCEQ TX-C24-00185

| Lab PM : Aundra Noe | Project Name : City of Tomball - Outfall 001 3 Part Grab Com | 2 Schedule | Comments: |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|
| City of Tomball James Linney 501 James Street Tomball, TX 77375 Phone: 281-351-2570 | Project Comments: COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED 12411 Holderrieth Rd Tomball 77375 Combo 9898 Zach Bowman - (936) 697-3533 | | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|------------|-------------------------|--------------------|----------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|
| 24K1724-01 | 18 Mohm DI | | 11/6/2024 1340 | AQ Grab | A Glass 4oz Boston Round | LL Hg-1631 BrCl | |
| 24K1724-02 | Outfall 001 3 Part Grab | | 11/6/2024 (| AQ Grab | A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 40z Boston Round | LL Hg-1631 BrCl Composite VOA 4°C | |

| Field Remarks: | | | Lab Preservation: (Circle and Write ID Below) | HINO3 | NaOH Other: | f |
|--------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------|---------------|----------------|
| Sampler (Signeture) | Relinquished By: (Signature) | × | Date/Time | Received By: (Signature) | | Date/Time |
| Print Name | Relinquished By: (Signature) | | Date/Time | Received By: (Signature) | | Date/Time |
| Artiliation NWDLS | Relinquished To Lab By: (Signature) | | Date/Time | Received for Laboratory By: (Signa | iture) VMC | Date/Time 1430 |
| Custody Seal : Yes / No Container Intact : Yes / No | COC Labels Agree: Yes / No Appropriate Containers: Yes / No | Appropriate Volume: Yes Coolers Intact: Yes | / No / No | Received on Ice: Yes / No Samples Accepted: Yes / No | Temperature: | °. |

.

Tomball

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



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



| | TCEQ 17 | X-C24-00185 | | | Г | | ∟ Page |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------|
| Lab PM : Aundra Noe | Project Name : City of Ton | nball - South - Permi | t Renewal | | | Schedule Co | vmmen |
| City of Tomball James Linney 501 James Street Tomball, TX 77375 Phone: 281-351-2570 | Project Comments: DO readi CL2 not between 1.0 - 4.0 Call Unless Dechlor plant <.1 Mark out Duplicated Outfall sa 12411 Holderrieth Rd Tomball | ling must be recorded b II Office amples on the regular cl II 77375 | efore 9am f hain | | | | |
| Sample ID Collection Point E | Date/Time Date/Time Begin Sampled | Sample Type | Container | Analysis/Preserva | tion | Field Results | |
| 24K1892-01 Outfall 001 | <u>724</u> 11/7/2024 | AQ Grab | A HDPE 250mL NaOH B HDPE S250mL Na2S2O3 C Glass Wide 1L w/ Teflon-lined Lid D HDPE S250mL Na2S2O3 | ENT-ASTMD6503 TC EC-9223 O&G-1664 CN AMEN-4500 CN T-4500 | Na2S2O3 <10°C Na2S2O3 <10°C +CI 4°C HCI 4°C NaOH 4°C NaOH 4°C | DO Field Flow MGD Field pH Field Total Chlorine Residual WW Field | 1.25 1.25 1.75 |

| Narth Water Decision Lawrence Decision | |
|-------------------------------------------|--|

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

| | _ |
|---------|-------------|
| 24K1892 | Page 2 of 3 |

| | , | | "< >>> >>>>> | | | | |
|--------------------------------------------------------------|--------------|--------------------------------------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------|--------------------------|----------------|
| | | | | | | 1 | (Continued) |
| Lab PM : Aundra Noe | Proj | ect Name : City of To | mball - South - Pern | nit Renewal | | | Schedule Comme |
| City of Tomball James Linney | Proje | ct Comments: DO read | ding must be recorded | before 9am If | | | |
| 501 James Street Tomball, TX 77375 Phone: 281-351-2570 | Mark 1241 | is Decnior plant <.1 out Duplicated Outfall s Holderrieth Rd Tomba | amples on the regular ll 77375 | chain | | | |
| 24K1892-02 Outfall 001 Sampler | 11-6-24 | 11/7/2024 | AQ 24HR Comp | A HDPE 250mL | Aluminum ICPMS 200.8 | HNO3 | |
| | (| | | B Amber Glass 1L w/ | Anumony ICPMS 200.8 | | |
| | | | | Teflon-lined Lid | Barium ICPMS 200.8 | HNO3 | |
| | | | | C Amber Glass 1L w/ | Beryllium ICPMS 200.8 | HNO3 | |
| | (72°C) | | | D HDPE 1L | Cadmium ICPMS 200.8 | HNO3 | |
| | { | | | E PreCleaned HDPE | Chromium ICPMS 200.8 | 3 HNO3 | |
| | | | | 250mL HNO3 | Copper ICPMS 200.8 | HNO3 | |
| | | | | | LEAU IOF IVIO 200.0 | | |
| | | | | G Glass VUA 60mL Protocol A | LPR Wetais | Analvsisi | |
| | | | | H Glass VOA 60mL | Nickel ICPMS 200.8 | HNO3 | |
| | | | | Protocol A | Selenium ICPMS 200.8 | HNO3 | |
| | | | | Protocol A | Silver ICPMIS 200.8 | HNO3 | |
| | | | | J HDPE 250mL | Zinc ICPMS 200.8 | HNO3 | |
| | | | | K HDPE 250mL H2SO4 | HERB-6640 | 4°C | |
| | | | | Teflon-lined Lid | Nonylphenol-D7065 | 4°C | |
| | | | | M Amber Glass 250mL w/ | OCP-608 | 4°C | |
| | | | | N DraClashed HDDE | 077-1007 | າ ເ | |
| | | | | 250mL HNO3 | SVOA-625 | 4°0 | |
| | | | | O PreClean Amber Glass | Sub_CBURP-632 | 4°C | |
| | | | | P Amber Glass 1L w/ | Alkalinity-2320 | 4°C | |
| | | | | Teflon-lined Lid | CBOD-5210 Chlorido IC 200 0 | 4°C | |
| | | | | Q Amber Glass 1L W/ | Conductivity-2510 | 4°.0° | |
| | | | | R Amber Glass 1L w/ | Cr III ICPMS | [Group | |
| | | | | Teflon-lined Lid S Amher Glass 11 w/ | Cr VI-D 3500 | Analysis] Cr&+Buf 4°C | |
| | | | | Teflon-lined Lid | Fluoride IC 300.0 | 4°C | |
| | | | | T PreClean Amber Glass 250mL | LPR Anions | Group | |
| | | | | U PreClean Amber Glass | NH3-N SEAL-350.1 | H2SO4 4°C | |
| | | | | Z50mL V Amber Glass 250mL w/ | Nitrate as N IC 300.0 | 4°C | |
| | | | | Teflon-lined Lid | Nitrite as N IC 300.0 | 4°C | |
| | | | | W Amber Glass 250mL w/ | Sulfate IC 300.0 | 4°C | |
| | | | | Y HIDE 350ml | TKN T 1500 C | 4°C | |
| | | | | Y HDPE 250mL H2SO4 | Total Phosphorus-365.1 | -H2SO4 4°C | |
| | | | | Z HDPE 250mL H2SO4 | TSS-2540 | 4°C | |
| | | | - | | | - | |

Page 55 of 75

| A | > |
|-----------------------------------------------|-------|
| Alan Wale District La reality Serve as int | SIUMN |

| 24K1892 |
|---------|
|---------|

| | | North Water District L 30 S. Trade Center Pk (936) 321-6060 - I (7-C24-00185 | aboratory Services vy, Conroe Tx 77385 ab@nwdls.com | C | | Page 3 of 3 24K1892 |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------|------|------------------------|
| | | 7-024-00183 | | | ſ | (Continued) |
| Lab PM : Aundra Noe | Project Name : City of Top | mball - South - Perm | nit Renewal | | | Schedule Commer |
| City of Tomball James Linney 501 James Street Tomball, TX 77375 Phone: 281-351-2570 | Project Comments: DO reac CL2 not between 1.0 - 4.0 Ca Unless Dechlor plant <.1 Mark out Duplicated Outfall s 12411 Holderrieth Rd Tomba | ling must be recorded all Office amples on the regular an 77375 | before 9am If chain | | | |
| 24K1892-03 Outfall 001 3 Part Grab | 11/7/2024 | AQ Grab | A Glass VOA 40mL HCI | LL Hg-1631 | BrCl | |
| | O2B | | pH<2 B Glass VOA 40mL HCI pH<2 | Composite VOA | 4°C | |
| | (- \ | | C Glass VOA 40mL HCl pH<2 | | | |
| | | | D Glass VOA 40mL | | | |
| | | | F Glass VOA 40mL G Glass 4oz Boston Round | | | |
| 24K1892-04 Outfall 001 3 Part Grab (| 11/7/2024 | AQ Grab 3-Part Cor | | VOA-624 | 4°C | |
| 24K1892-05 18 Mohm DI | 11/7/2024 | AQ Grab | A Glass 4oz Boston Round | LL Hg-1631 | BrCl | |

0 WT-HWR-11-12-24 [900]

| 1 Effective: 2/17/20 | VWDLS_COC_LS Revision 4.1 | wko N | | | | Tomball |
|----------------------|---------------------------|----------------------------------------|----------------------------------------------------------|---------------------|-------------------------------------|------------------------------------------|
| | Thermometer ID: | pies Accepted: Yes / No | Yes / No Sam | Coolers Intact: | ppriate Containers: Yes / No | Container Intact: Yes / No Appr |
| റ് | Temperature: | sived on Ice: Yes / No | Yes / No Reco | Appropriate Volume: | Labels Agree: Yes / No | Custody Seal : Yes / No COC |
| 1345 | | LON | 11-7-24 | TWR | | 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- |
| Date/Time | | eceived for Laboratory By. (Signature) | Date/Time 13い(C R | | Relinquished To Lab By: (Signature) | Affiliation |
| Date/Time | | eceived By: (Signature) | Date/Time | | Relinquished By: (Signature) | Print Name Heat H REMNIC |
| Date/Time | | eceived By: (Signature) | Date/Time R | | Relinquished By: (Signature) | Sampler (Signature) |
| | Other: | 04 HNO3 NaC | Lab Preservation: H2St (Circle and Write ID Below) | | | riela Kelilarks: |



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



TCEQ TX-C24-00185

| | | acle Schedule Comments: |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| City of TomballPJames LinneyS501 James Street1Tomball, TX 77375CPhone: 281-351-2570E | Project Comments: TAKE GLASS RECEPTACLE & PLACE IN SAMPLER 12411 Holderrieth Rd Tomball 77375 Combo 9898 Zach Bowman - (936) 697-3533 ENTER CODE TO CLOSE GATE WHEN YOU LEAVE | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|------------|---------------------------|--------------------|----------------------|--------------------|-----------|-----------------------|---------------|
| 24K2720-01 | Outfall 001 | | 11/13/2024 500 | AQ Grab | | [NO ANALYSES] | |
| 24K2720-02 | Outfall 001 Sampler | | 11/13/2024 | AQ 24HR Comp | | [NO ANALYSES] | × |
| 24K2720-03 | 18 Mohm DI | | 11/13/2024 | AQ Grab | | [NO ANALYSES] | |
| 24K2720-04 | Outfall 001 3 Part Grab | | 11/13/2024 | AQ Grab | | [NO ANALYSES] | |
| 24K2720-05 | Outfall 001 3 Part Grab 0 | | 11/13/2024 | AQ Grab 3-Part Cor | | [NO ANALYSES] | |

| Field Remarks: | | | Lab Preservation: H (Circle and Write ID Below) | H2SO4 HNO3 | NaOH | Other: |
|-----------------------------|-------------------------------------|-------------------------|-------------------------------------------------------|-----------------------------------------|-------------------|--------------------------------|
| Sampler (Signature) | Relinquished By: (Signature) | с. С | Date/Time | Received By: (Signature) | 2 | Date/Time |
| Print Name | Relinquished By: (Signature) | | Date/Time | Received By: (Signature) | | Date/Time |
| Affiliation | Relinquished To Lab By: (Signature) | | Date/Time | Received for Laboratory By: (Signature) | | Date/Time |
| ANDIS | 40 | | 11.13.24/151 | 0 | | S#K 11/13/24/1511 |
| Custody Seal : Yes / No (| COC Labels Agree: Yes / No | Appropriate Volume: Yes | ; / No / | Received on Ice: Yes / No | Temperature: | °C |
| Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes | s / No | Samples Accepted: Yes / No | Thermometer ID: | |
| Tomball | | | | | WKO NWDIS COC ISE | Revision 4.1 Effective: 2/17/2 |

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



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

TCEQ TX-C24-00185

AQ Grab

0500

11/14/2024/0825



24K2919

| Lab PM : Aundra Noe Project Name : City of Tomball - South- Permit Renewal Recoll City of Tomball James Linney James Linney Project Comments: 12411 Holderrieth Rd Tomball 77375 S01 James Street Combo 9898 Zach Bowman - (936) 697-3533 Tomball, TX 77375 ENTER CODE TO CLOSE GATE WHEN YOU LEAVE Phone: 281-351-2570 Project Comments: 12411 Holderrieth Rd Tomball 77375 | | | | | | llect | | | Schedule Comments |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------|-----------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------|---------------------------|-------------------|
| Sample ID | Collection Point | Date/Tim Begin | ne Date/Time Sampled | Sample Type | Container | | Analysis/Preservation | | Field Results |
| 24K2919-01 | Outfall 001 Sampler | 11-13-24 | 11/14/2024/ ₀₅₀₀ | AQ 24HR Comp | A HDPE 250 Cr6+Buf after filtration B Amber Glass 1L w/ Teflon-lined Lid C Amber Glass 1L w/ Teflon-lined Lid D Amber Glass 1L w/ Teflon-lined Lid | | OPP-1657 Sub_CBURP-632 Cr VI-D 3500 | 4°C 4°C Cr6+Buf 4°C | |

E Amber Glass 1L w/ Teflon-lined Lid F Amber Glass 1L w/ Teflon-lined Lid G Amber Glass 1L w/

Teflon-lined Lid

| Field Remarks: | Lab Preservation: H (Circle and | 2SO4 HNO3 N | laOH Other: | |
|----------------------------------------------------------------------------------|------------------------------------|-----------------------------------------|-----------------|----------------|
| Sampler (Signature) | Write ID Below) | Peceived By: (Signature) | | Date/Time |
| Sampler (Signature) | Date/Time | Received by. (Signature) | | Daternine |
| Print Name Funance (Phant Relinquished By: (Signature) | Date/Time | Received By: (Signature) | - | Date/Time |
| Affiliation Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | 60 D | Date/Time 1250 |
| Mub() | 11-14-24/1250 | | Umc | 11.14.24 |
| Custody Seal : Yes / No COC Labels Agree: Yes / No Appropriate Volume: Yes | es / No F | Received on Ice: Yes / No | Temperature: | °C |
| Container Intact : Yes / No Appropriate Containers: Yes / No Coolers Intact: Yes | es / No S | Samples Accepted: Yes / No | Thermometer ID: | |
| | | | | |

Tomball

24K2919-02

Outfall 001

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022

DO Field

Page 58 of 75

7.26

Laboratory Analysis Report

Total Number of Pages: 9

Job ID: 24111731



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

Client Project Name : 24K1892

| Report To : | Client Name: | NWDLS |
|-------------|-------------------|-------------------------|
| | Attn: | Aundra Noe |
| | Client Address: | 130 S Trade Center Pkwy |
| | City, State, Zip: | Conroe, Texas, 77385 |

P.O.#.: 24K1892 Sample Collected By: Date Collected: 11/07/24

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

Client Sample ID 24K1892-02 Matrix Waste Water A&B Sample ID 24111731.01

Released By:Amanda ShuteTitle:Project ManagerDate:11/21/2024



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/01/2024; Expires: 03/31/2025 Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

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

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

ab-q210-0321

Date Received : 11/15/2024 07:00

LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Date: 11/21/2024

General Term Definition

| Back-Wt | Back Weight | Post-Wt | Post Weight |
|---------------------|----------------------------------------------------------|-------------|---------------------------------------|
| BRL | Below Reporting Limit | ppm | parts per million |
| cfu | colony-forming units | Pre-Wt | Previous Weight |
| Conc. | Concentration | Q | Qualifier |
| D.F. | Dilution Factor | RegLimit | Regulatory Limit |
| Front-Wt | Front Weight | RLU | Relative Light Unit |
| J | Estimation. Below calibration range but above MDL | RPD | Relative Percent Difference |
| LCS | Laboratory Check Standard | RptLimit | Reporting Limit |
| LCSD | Laboratory Check Standard Duplicate | SDL | Sample Detection Limit |
| LOD | Limit of detection adjusted for %M + DF | SQL | Below calibration range but above MDL |
| LOQ | Limit of Quantitation adjusted for %M + DF | surr | Surrogate |
| MS | Matrix Spike | Т | Time |
| MSD | Matrix Spike Duplicate | TNTC | Too numerous to count |
| MW | Molecular Weight | UQL | Unadjusted Upper Quantitation Limit |
| MQL | Unadjusted Minimum Quantitation Limit | | |
| Qualifier Definitio | n | | |
| S6 | Surrogate recovery is outside control limits due to matr | ix effects. | |
| U | Undetected at SDL (Sample Detection Limit). | | |
| V12 | Closing CCV recovery is outside of acceptance limits. | | |

LABORATORY TEST RESULTS

Job ID: 24111731

NWDLS

Client Name:

Date 11/21/2024

Attn: Aundra Noe

| Project Name: | | 24K1892 | | | | | | | | | |
|-----------------|--------------------|-----------------------------|----------------|-----------|--------------|--------|-----------------|-----------|----------|----------------------------------|----------|
| | | | | | | | | | | | |
| Client Sample I | D: | 24K1892-02 | | | | | Job Samp | ole ID: | 24111731 | .01 | |
| Date Collected: | | 11/07/24 | | | | | Sample M | latrix | Waste Wa | ater | |
| Time Collected: | | 06:00 | | | | | % Moistu | ire | | | |
| Other Informat | ion: | | | | | | | | | | |
| Test Method | Param | eter/Test Description | Result | Units | DF | SDL | SQL | Reg Limit | Q | Date Time | Analyst |
| EPA 608.3 | Polych | lorinated Biphenyls | | | | | | | | | |
| | Aroclo | r 1016 | <0.03 | ug/L | 1.00 | 0.03 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Aroclo | r 1221 | <0.02 | ug/L | 1.00 | 0.02 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Aroclo | r 1232 | <0.0049 | ug/L | 1.00 | 0.0049 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Aroclo | r 1242 | <0.0017 | ug/L | 1.00 | 0.0017 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Aroclo | r 1248 | <0.01 | ug/L | 1.00 | 0.01 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Aroclo | r 1254 | <0.0047 | ug/L | 1.00 | 0.0047 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Aroclo | r 1260 | <0.03 | ug/L | 1.00 | 0.03 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Total I | PCBs | <0.03 | ug/L | 1.00 | 0.03 | 0.0500 | | U | 11/16/24 02:01 | KMN |
| | Decac | hlorobiphenyl(surr) | 76.5 | % | 1.00 | | 35-129 | | | 11/16/24 02:01 | KMN |
| | Tetrac | hloro-m-xylene(surr) | 77.5 | % | 1.00 | | 27-127 | | | 11/16/24 02:01 | KMN |
| EPA 608.3 | Organ | ochlorine Pesticides | | | | | | | | | |
| | Alpha- | chlordane | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Dicofo | 2 | <0.050 | ug/L | 1.00 | 0.050 | 0.050 | | U | 11/20/24 14:40 | KMN |
| | Gamm | a-chlordane | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | 4,4-D[| DD | <0.002 | ug/L | 1.00 | 0.002 | 0.010 | | V12,U | 11/20/24 14:40 | KMN |
| | 4,4-D[| DE | <0.009 | ug/L | 1.00 | 0.009 | 0.010 | | V12,U | 11/20/24 14:40 | KMN |
| | 4,4-D[| T | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | a-BHC | : | <0.003 | ug/L | 1.00 | 0.003 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Aldrin | | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | b-BHC | : | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Chlord | lane | <0.100 | ug/L | 1.00 | 0.100 | 0.100 | | U | 11/20/24 14:40 | KMN |
| | d-BHC | : | <0.006 | ug/L | 1.00 | 0.006 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Dieldri | in | <0.005 | ug/L | 1.00 | 0.005 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Endos | ulfan I | <0.007 | ug/L | 1.00 | 0.007 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Endos | ulfan II | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Endos | ulfan sulfate | <0.005 | ug/L | 1.00 | 0.005 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Endrin | I | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Endrin | aldehyde | <0.003 | ug/L | 1.00 | 0.003 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | g-BHC | 2 | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Hepta | chlor | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Hepta | chlor epoxide | <0.004 | ug/L | 1.00 | 0.004 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Metho | xychlor | <0.003 | ug/L | 1.00 | 0.003 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Mirex ² | 2 | <0.010 | ug/L | 1.00 | 0.010 | 0.010 | | U | 11/20/24 14:40 | KMN |
| | Тохар | hene | <0.100 | ug/L | 1.00 | 0.100 | 0.100 | | U | 11/20/24 14:40 | KMN |
| | Decac | hlorobiphenyl(surr) | 16.8 | % | 1.00 | | 34-120 | | S6 | 11/20/24 14:40 | KMN |
| | Toxap Decac | hene hlorobiphenyl(surr) | <0.100 16.8 | ug/L % | 1.00 1.00 | 0.100 | 0.100 34-120 | | U S6 | 11/20/24 14:40 11/20/24 14:40 | KI KI |

ab-q212-0321

| | | | LABO | RATOR | RY TE | ST RE | SULTS | | | | |
|-----------------------------|--------|-----------------------|---------------|-------|-------|----------|-------------|-----------|---------|----------------|---------|
| | | lob ID: 24111731 | | | | | | | | Date 11, | 21/2024 |
| Client Name: | | NWDLS | | | | | | | Att | n: Aundra Noe | |
| Project Name: | | 24K1892 | | | | | | | | | |
| | | | | | | | | | | | |
| Client Sample ID: 24K1892-0 | | 24K1892-02 | | | | | Job Sa | mple ID: | 2411173 | 1.01 | |
| Date Collected: | | 11/07/24 | Sample Matrix | | | e Matrix | Waste Water | | | | |
| Time Collected: | | 06:00 | | | | | % Moi | sture | | | |
| Other Information | on: | | | | | | | | | | |
| Test Method | Param | eter/Test Description | Result | Units | DF | SDL | SQL | Reg Limit | Q | Date Time | Analyst |
| EPA 608.3 | Organ | ochlorine Pesticides | | | | | | | | | |
| | Tetrac | chloro-m-xylene(surr) | 38.5 | % | 1.00 | | 24-127 | | | 11/20/24 14:40 | KMN |

ab-q212-0321

²-Parameter not available for accreditation.



Job ID : 24111731

| Analysis : Polychlor | inated Biphenyls | | Method : | EPA 608. | 3 Rep | orting Units | : ug/L |
|------------------------|------------------------|-------------------------|--------------|----------|----------------|--------------|-------------|
| QC Batch ID : Qb24111 | 877 Created D | ate : 11/15/24 | Created By : | KMedina | | | |
| Samples in This QC Bat | ch : 24111731.0 | 1 | | | | | |
| Extraction : | PB24111540 | Prep Method : EPA 608.3 | Pre | p Date : | 11/15/24 09:00 | Prep By : | KHaxhillari |

| 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 | 0.025 | |
| Aroclor 1221 | 11104-28-2 | < MDL | ug/L | 1.00 | 0.05 | 0.01871 | |
| Aroclor 1232 | 11141-16-5 | < MDL | ug/L | 1.00 | 0.05 | 0.00493 | |
| Aroclor 1242 | 53469-21-9 | < MDL | ug/L | 1.00 | 0.05 | 0.00166 | |
| Aroclor 1248 | 12672-29-6 | < MDL | ug/L | 1.00 | 0.05 | 0.00788 | |
| Aroclor 1254 | 11097-69-1 | < MDL | ug/L | 1.00 | 0.05 | 0.00474 | |
| Aroclor 1260 | 11096-82-5 | < MDL | ug/L | 1.00 | 0.05 | 0.026 | |
| Total PCBs | | < MDL | ug/L | 1.00 | 0.05 | 0.026 | |
| Decachlorobiphenyl(surr) | 2051-24-3 | 128 | % | 1.00 | | | |
| Tetrachloro-m-xylene(surr) | 877-09-8 | 88 | % | 1.00 | | | |

| QC Type: LCS and LCSD | | | | | | | | | | | | |
|-----------------------|------------------|---------------|--------------|-------------------|----------------|---------------|-----|------------------|------------------------|------|--|--|
| Parameter | LCS Spk Added | LCS Result | LCS % Rec | LCSD Spk Added | LCSD Result | LCSD % Rec | RPD | RPD CtrlLimit | %Recovery CtrlLimit | Qual | | |
| Aroclor 1016 | 2 | 1.85 | 92.3 | 2 | 1.88 | 94.2 | 1.8 | 30 | 53.7-124 | | | |
| Aroclor 1260 | 2 | 2.17 | 109 | 2 | 2.15 | 108 | 1 | 30 | 51.7-130 | | | |
| Total PCBs | 4 | 4.02 | 100 | 4 | 4.04 | 101 | | 30 | 51.7-130 | | | |

Page 63 of 75



Job ID : 24111731

Date : 11/21/2024

| Analysis : Organoc | hlorine Pesticides | | Method : EPA 6 | 08.3 Reporti | ng Units : ug/L |
|-----------------------|-------------------------|-------------------------|---------------------|----------------------|---------------------------|
| QC Batch ID : Qb2411 | 21123 Created D | ate : 11/20/24 | Created By : KMedir | าล | |
| Samples in This QC Ba | tch : 24111731.0 | 1 | | | |
| Extraction : | PB24111543 | Prep Method : EPA 608.3 | Prep Date | : 11/15/24 09:00 Pre | p By : KHaxhillari |

| QC Type: Method Blank | | | | | | | |
|----------------------------|------------|--------|-------|------|------|-------|------|
| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | Qual |
| Alpha-chlordane | 5103-71-9 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| Dicofol | 115-32-2 | < MDL | ug/L | 1.00 | 0.05 | 0.05 | |
| Gamma-chlordane | 5103-74-2 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| 4,4-DDD | 72-54-8 | < MDL | ug/L | 1.00 | 0.01 | 0.002 | |
| 4,4-DDE | 72-55-9 | < MDL | ug/L | 1.00 | 0.01 | 0.009 | |
| 4,4-DDT | 50-29-3 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| a-BHC | 319-84-6 | < MDL | ug/L | 1.00 | 0.01 | 0.003 | |
| Aldrin | 309-00-2 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| b-BHC | 319-85-7 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| Chlordane | 57-74-9 | < MDL | ug/L | 1.00 | 0.1 | 0.1 | |
| d-BHC | 319-86-8 | < MDL | ug/L | 1.00 | 0.01 | 0.006 | |
| Dieldrin | 60-57-1 | < MDL | ug/L | 1.00 | 0.01 | 0.005 | |
| Endosulfan I | 959-98-8 | < MDL | ug/L | 1.00 | 0.01 | 0.007 | |
| 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 | 0.005 | |
| 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 | 0.003 | |
| g-BHC | 58-89-9 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| Heptachlor | 76-44-8 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| Heptachlor epoxide | 1024-57-3 | < MDL | ug/L | 1.00 | 0.01 | 0.004 | |
| Methoxychlor | 72-43-5 | < MDL | ug/L | 1.00 | 0.01 | 0.003 | |
| Mirex | 2385-85-5 | < MDL | ug/L | 1.00 | 0.01 | 0.01 | |
| Toxaphene | 8001-35-2 | < MDL | ug/L | 1.00 | 0.1 | 0.1 | |
| Tetrachloro-m-xylene(surr) | 877-09-8 | 64.3 | % | 1.00 | | | |
| Decachlorobiphenyl(surr) | 2051-24-3 | 94.8 | % | 1.00 | | | |

| 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 |
| Alpha-chlordane | 0.2 | 0.186 | 93.3 | 0.2 | 0.181 | 90.5 | 3 | 23 | 42-132 | |
| Gamma-chlordane | 0.2 | 0.180 | 89.8 | 0.2 | 0.176 | 88.3 | 2 | 21 | 45-133 | |
| 4,4-DDD | 0.2 | 0.211 | 106 | 0.2 | 0.186 | 93 | 12.6 | 24 | 40.8-141 | |
| 4,4-DDE | 0.2 | 0.234 | 117 | 0.2 | 0.242 | 121 | 3.2 | 21 | 30-136 | |
| 4,4-DDT | 0.2 | 0.222 | 111 | 0.2 | 0.228 | 114 | 2.9 | 30 | 34.3-134 | |
| a-BHC | 0.2 | 0.179 | 89.5 | 0.2 | 0.181 | 90.5 | 1.1 | 25 | 37-125 | |
| Aldrin | 0.2 | 0.181 | 90.5 | 0.2 | 0.191 | 95.5 | 5.4 | 23 | 42-127 | |
| b-BHC | 0.2 | 0.174 | 86.8 | 0.2 | 0.175 | 87.5 | 0.9 | 24 | 38.5-132 | |

ab-q213-0321

Refer to the Definition page for terms.



| Analysis : | Organochlorine | Pesticides | | Method : | EPA 608.3 | Reporting Units : ug/L | |
|-------------|----------------|----------------|----------|--------------|-----------|------------------------|--|
| QC Batch ID | : Qb241121123 | Created Date : | 11/20/24 | Created By : | KMedina | | |

Samples in This QC Batch : 24111731.01

| 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 |
| d-BHC | 0.2 | 0.221 | 111 | 0.2 | 0.220 | 110 | 0.5 | 20 | 30-139 | |
| Dieldrin | 0.2 | 0.188 | 94.3 | 0.2 | 0.180 | 90 | 4.6 | 21 | 40.7-133 | |
| Endosulfan I | 0.2 | 0.106 | 53 | 0.2 | 0.101 | 50.5 | 4.8 | 24 | 45-124 | |
| Endosulfan II | 0.2 | 0.150 | 75 | 0.2 | 0.134 | 67.3 | 11.3 | 21 | 20-114 | |
| Endosulfan sulfate | 0.2 | 0.248 | 124 | 0.2 | 0.211 | 106 | 15.9 | 20 | 45-131 | |
| Endrin | 0.2 | 0.195 | 97.5 | 0.2 | 0.183 | 91.5 | 6.3 | 24 | 35.1-136 | |
| Endrin aldehyde | 0.2 | 0.219 | 110 | 0.2 | 0.175 | 87.5 | 22.3 | 33 | 33.9-130 | |
| g-BHC | 0.2 | 0.212 | 106 | 0.2 | 0.211 | 106 | 0.5 | 25 | 39-132 | |
| Heptachlor | 0.2 | 0.197 | 98.5 | 0.2 | 0.198 | 98.8 | 0.5 | 20 | 34.6-134 | |
| Heptachlor epoxide | 0.2 | 0.186 | 92.8 | 0.2 | 0.183 | 91.5 | 1.4 | 24 | 39.2-132 | |
| Methoxychlor | 0.2 | 0.201 | 101 | 0.2 | 0.213 | 107 | 5.8 | 24 | 37.7-143 | |





SUBCONTRACT ORDER

11/15/2024 NWDLS AMS

Sending Laboratory:

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

Subcontracted Laboratory:

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

Project Manager: Aundra Noe

Work Order: 24K1892

| Analysis | Due | Expires | Comments |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample ID: 24K1892-02 Waste Wat | er Sampled: | 11/07/2024 | 4 06:00 |
| OCP-608 Analyte(s): 2,4,5,6 Tetrachloro-m-xylene-surr 4,4'-DDT beta-BHC (beta-Hexachlorocyclohexane) Decachlorobiphenyl-surr Dieldrin Endosulfan sulfate gamma-BHC (Lindane, gamma-Hexachlorocyclol Heptachlor epoxide Toxaphene (Chlorinated Camphene) | 11/21/2024 4,4'-DDD Aldrin Chlordane (Tot delta-BHC Endosulfan I Endrin gamma-Chlorda Methoxychlor | 11/14/2024 () al) ane | 6:00 4,4'-DDE alpha-BHC (alpha-Hexachlorocyclohexane) cis-Chlordane (alpha-Chlordane) Dicofol Endosulfan II Endrin aldehyde Heptachlor Mirex |
| PCB-608 <i>Analyte(s):</i> 2,4,5,6 Tetrachloro-m-xylene-surr Aroclor-1232 (PCB-1232) Aroclor-1254 (PCB-1254) PCBs, Total | 11/21/2024 Aroclor-1016 (F Aroclor-1242 (F Aroclor-1250 (F | 11/02/2025 0 PCB-1016) PCB-1242) PCB-1260) | 6:00 Aroclor-1221 (PCB-1221) Aroclor-1248 (PCB-1248) Decachlorobiphenyl-surr |

Containers Supplied:

drigvez Released By

1-15-24 UTOD Date

11 A A A Received By

0700

2.181

Sample Condition Checklist



| A& | B JobID : 24111731 | Date Received : 11/15/2024 Time Received : | ':00AM | | |
|------|-------------------------------------------------|---------------------------------------------------------------------------|--------|----|-----|
| Clie | ent Name : NWDLS | | | | |
| Ter | nperature : 2.1°C | Sample pH : NA | | | |
| The | ermometer ID : IR7 | pH Paper ID: NA | | | |
| Per | servative : | Lot# : | | 1 | 1 |
| | | Check Points | Yes | No | N/A |
| 1. | Cooler Seal present and signed. | | | Х | |
| 2. | Sample(s) in a cooler. | | х | | |
| 3. | If yes, ice in cooler. | | х | | |
| 4. | Sample(s) received with chain-of-custo | ody. | х | | |
| 5. | C-O-C signed and dated. | | х | | |
| 6. | Sample(s) received with signed sample | e custody seal. | | х | |
| 7. | Sample containers arrived intact. (If No | o comment) | х | | |
| 8. | Water Soil Liquid Slu Matrix: | Idge Solid Cassette Tube Bulk Badge Food Othe | | | |
| 9. | Samples were received in appropriate of | container(s) | х | | |
| 10. | Sample(s) were received with Proper p | reservative | | | Х |
| 11. | .1. All samples were tagged or labeled. | | | | |
| 12. | .2. Sample ID labels match C-O-C ID's. | | | | |
| 13. | 3. Bottle count on C-O-C matches bottles found. | | | | |
| 14. | Sample volume is sufficient for analyse | s requested. | х | | |
| 15. | Samples were received with in the hold | l time. | х | | |
| 16. | VOA vials completely filled. | | | | х |
| 17. | Sample accepted. | | х | | |
| 18. | Has client been contacted about sub-ou | ut | | | Х |

Comments : Include actions taken to resolve discrepancies/problem:





Sending Laboratory:

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

Project Manager: Aundra Noe

Subcontracted Laboratory:

| SPL 2600 Dudley Kilgore, TX Phone: (903 | / Rd 75662) 984-0551 |
|--------------------------------------------------|-----------------------------|
| Fax: | |
| | |

Work Order: 24K2919

| Analysis | Due | Expires | Comments | |
|-----------------------|------------------------|------------------|----------|--------------|
| Sample ID: 24K2919-01 | Waste Water Sampled: . | 11/14/2024 05 | 5:00 | |
| Sub_CBURP-632 | 11/28/2024 1 | .1/21/2024 05:00 |) | |
| Analyte(s): | | | | |
| Carbaryl | Diuron | | | |
| Containers Supplied: | | | | |
| AmA | 11.18.24 | · · · | UPS | 11.18.24 |
| Released /By V | Date | Receiv | ved By | Date |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



Printed

Page 1 of 1



12/03/2024

7:25

NWDS-G

North Water District Laboratory Deena McDaniel 130 S Trade Center Parkway Suite:100 Conroe, TX 77385

TABLE OF CONTENTS

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

| | Description | Pages |
|-------------------------------|------------------------------------------------------------------------------|-------|
| 1125962_r02_01_ProjectSamples | SPL Kilgore Project P:1125962 C:NWDS Project Sample Cross Reference t:304 | 1 |
| 1125962_r03_03_ProjectResults | SPL Kilgore Project P:1125962 C:NWDS Project Results t:304 PO: #26201 | 2 |
| 1125962_r10_05_ProjectQC | SPL Kilgore Project P:1125962 C:NWDS Project Quality Control Groups | 1 |
| 1125962_r99_09_CoC1_of_1 | SPL Kilgore CoC NWDS 1125962_1_of_1 | 2 |
| | Total Pages: | 6 |

Email: Kilgore.ProjectManagement@spllabs.com



Report Page 1 of 7



1

SAMPLE CROSS REFERENCE



| | | North Water District Labo Deena McDaniel 130 S Trade Center Parkw Suite:100 Conroe, TX 77385 | oratory Yay | | Printed | 12/3/2024 | Page 1 of 1 ww |
|------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------|------------------|--------------------|------------|-------------------|
| Sample | Sample ID | | Taken | Time | | Received | |
| 2356179 | 24K2919-01 | | 11/14/2024 | 05:00:00 | | 11/19/2024 | |
| Bottle 01 Clier Bottle 02 Clier Bottle 03 Prep | nt Supplied Amber Glass nt Supplied Amber Glass ared Bottle: 632L\632S 2 | mL Autosampler Vial (Batch | 1148821) Volume: 1.000 | 000 mL <== Deriv | ed from 02 (998 1 | ml) | |
| | Method | | Bottle | PrepSet | Preparation | QcGroup | Analytical |
| | EPA 632 | | 03 | 1148821 | 11/20/2024 | 1150163 | 11/27/2024 |

Email: Kilgore.ProjectManagement@spllabs.com

Report Page 2 of 7

NWDS-G

North Water District Laboratory Deena McDaniel 130 S Trade Center Parkway Suite:100 Conroe, TX 77385



1 2

| Page 1 of 2 |
|-----------------|
| Project |
| 1125962 |
| |

Printed:

12/03/2024

RESULTS

| | | | | Sample | Results | | | | | |
|-------|-------------------------------------|--------------------------|-------------------------------------------|------------------|----------------------------------------------------|----------|------------------|----------------------------|------------|--------------------|
| N | 2356179 | 24K2919-01 ter | Collected by: Client Taken: 11/14/2024 | North Wa | ater District 5:00:00 | | PO: | Received: | 11/19 # | 1/2024 ‡26201 |
| Ē | EPA 632 | | Prepared: | 1148821 | 11/20/2024 | 14:00:00 | Analyzed 1150163 | 11/27/2024 | 18:11:00 | BRU |
| IELAC | Parameter Carbaryl (Se Diuron | vin) | Results <1.22 <0.0451 | Un ug/ ug/ | <i>tits RL</i> L 1.22 L 0.0451 | | Flags | CAS 63-25-2 330-54-1 | | Bottle 03 03 |
| _ | | | S | ample Pr | eparation | | | | | |
| | 2356179 | 24K2919-01 | | | | | | Received: | 11/19 | //2024 |
| | | | 11/14/2024 | | | | | | 7 | -20201 |
| | | | Prepared: | | 11/19/2024 | 15:01:54 | Calculated | 11/19/2024 | 15:01:54 | CAL |
| | Environment | al Fee (per Project) | Verified Prepared: | | 12/03/2024 | 07:20:00 | Analyzed | 12/03/2024 | 07:20:00 | WJI |
| | Check Limit: Level IV Dat | s ta Review | Completed Completed | | | | | | | |
| E | EPA 632 | | Prepared: | 1148821 | 11/20/2024 | 14:00:00 | Analyzed 1148821 | 11/20/2024 | 14:00:00 | LSN |
| | Liquid-Liqui | d Extr. W/Hex Ex | 1/998 | ml | | | | | | 02 |
| E | EPA 632 | | Prepared: | 1148821 | 11/20/2024 | 14:00:00 | Analyzed 1150163 | 11/27/2024 | 18:11:00 | BRL |



Report Page 3 of 7



1 2

| | | NWDS-G North Water District Lak Deena McDaniel 130 S Trade Center Parky | ooratory way | | | | | | | Proj 112: | Page 2 of 2 iect 5962 | : |
|-------|--------------|----------------------------------------------------------------------------------|-----------------|-----------|---------|------------|----------|----------|----------|--------------|-----------------------------|----------------|
| _ | | Conroe, TX 77385 | | | | | | | Printed: | 12/0 | 03/2024 | |
| | 2356179 | 24K2919-01 | 11/14/202 | 24 | | | | | | Received: | 11/19/ #2 | '2024 26201 |
| | EPA 632 | | | Prepared: | 1148821 | 11/20/2024 | 14:00:00 | Analyzed | 1150163 | 11/27/2024 | 18:11:00 | BRU |
| NELAC | Carbaryl/Diu | ron | | Entered | | | | | | | | 03 |

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation z -- Not covered by our NELAC scope of accreditation

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

500 00

Bill Peery, MS, VP Technical Services



Report Page 4 of 7

QUALITY CONTROL

NWDS-G

North Water District Laboratory Deena McDaniel 130 S Trade Center Parkway Suite:100 Conroe, TX 77385



1 2 3

Page 1 of 1

Project 1125962

Printed 12/03/2024

| | Analytical Set | 1150163 | | | | | | | | | | EPA 632 |
|-----------------|----------------|---------|---------|-------|-------|----------|-------------|------|-----------|-------|------|---------|
| | | | | | В | lank | | | | | | |
| Parameter 1 | | PrepSet | Reading | MDL | MQL | Units | | | File | | | |
| Carbaryl (Sevin |) | 1148821 | ND | 66.1 | 2500 | ug/L | | | 127079876 | | | |
| Diuron | | 1148821 | 412 | 44.4 | 45.0 | ug/L | | | 127079876 | | | |
| | | | | | (| ccv | | | | | | |
| Parameter | | | Reading | Known | Units | Recover% | Limits% | | File | | | |
| Carbaryl (Sevin |) | | 849 | 1000 | ug/L | 84.9 | 70.0 - 130 | | 127079875 | | | |
| Carbaryl (Sevin |) | | 830 | 1000 | ug/L | 83.0 | 70.0 - 130 | | 127079879 | | | |
| Carbaryl (Sevin |) | | 818 | 1000 | ug/L | 81.8 | 70.0 - 130 | | 127079883 | | | |
| Carbaryl (Sevin |) | | 851 | 1000 | ug/L | 85.1 | 70.0 - 130 | | 127079886 | | | |
| Diuron | | | 811 | 1000 | ug/L | 81.1 | 70.0 - 130 | | 127079875 | | | |
| Diuron | | | 809 | 1000 | ug/L | 80.9 | 70.0 - 130 | | 127079879 | | | |
| Diuron | | | 749 | 1000 | ug/L | 74.9 | 70.0 - 130 | | 127079883 | | | |
| Diuron | | | 750 | 1000 | ug/L | 75.0 | 70.0 - 130 | | 127079886 | | | |
| | | | | | LC | S Dup | | | | | | |
| Parameter | | PrepSet | LCS | LCSD | | Known | Limits% | LCS% | LCSD% | Units | RPD | Limit% |
| Carbaryl (Sevin |) | 1148821 | 868 | 1100 | | 1000 | 17.1 - 131 | 86.8 | 110 | ug/L | 23.6 | 30.0 |
| Diuron | | 1148821 | 309 | 342 | | 1000 | 0.100 - 138 | 30.9 | 34.2 | ug/L | 10.1 | 30.0 |

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank 🛛 (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same

conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); LCS Dup - Laboratory Control Sample Duplicate

(replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.)

Email: Kilgore.ProjectManagement@spllabs.com



2 3 4

1

1 of 2

1125962 CoC Print Group 001 of 001



Sending Laboratory:

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

Project Manager: Aundra Noe

SUBCONTRACT ORDER

Subcontracted Laboratory:

SPL 2600 Dudley Rd Kilgore, TX 75662 Phone: (903) 984-0551 Fax:

Work Order: 24K2919

| Analysis | Due | Expires | Comments | 2356179 | |
|------------------------------|----------------------|-----------------|----------|---------|--------------|
| Sample ID: 24K2919-01 | Waste Water Sampled: | 11/14/2024 0 | 5:00 | | |
| Sub_CBURP-632 Analyte(s): | 11/28/2024 | 11/21/2024 05:0 | 0 | | |
| Carbaryl | Diuron | | | | |
| Containers Supplied: | | | | | |
| AmA | 11.18.2 | 4 | UPS | | 11.18.24 |
| Released /By ∅ | Date | Rece | ived By | | Date |
| 113 | 11/19/21 | 4 11415 ~ | rage | | 11/19/2n 114 |

Page 1 of 1

2 of 2

1125962 CoC Print Group 001 of 001



Report Page 7 of 7

The City of Tomball requests TCEQ to re-evaluate the need for a limit on Total Copper in the permit.

During the most recent permit amendment, a limit on Total Copper was introduced. Under the Interim I phase, monitoring of Total Copper is required, while the Interim II, III, and final phases impose a daily average limit of 0.017 mg/L. The City has been reporting Total Copper concentrations in the effluent in compliance with the Interim I phase requirements. Table 1 below presents the limited effluent concentration data that was utilized to justify the inclusion of a Total Copper limit during the last major amendment review. This dataset includes an anomalous value of 54.3 µg/L recorded on June 29, 2023, which significantly skewed the overall average concentration.

| Sample Date | Effluent Copper Conc. (µg/L) |
|-------------|---------------------------------|
| 11/10/2022 | 13.5 |
| 6/20/2023 | 8.94 |
| 6/22/2023 | 8.48 |
| 6/27/2023 | 54.3 |
| 6/29/2023 | 7.66 |
| Average: | 18.58 |

Table-1: Effluent Copper Data Used in Previous Permit Amendment

Table 2 below presents the effluent Total Copper data reported by the City as part of the Interim I phase requirements. This dataset initially included erroneous values for November 2024 due to a data entry error. Upon review of the actual laboratory results, the values were corrected and updated accordingly in Table 2. The verified laboratory reports for November 2024 have been provided for the agency's review.

| Data | Effluent Copper Concentration | | | | | |
|-------------|----------------------------------|----------------------|--|--|--|--|
| Date | (µg/L) | Maximum | | | | |
| 12/21/2022 | 7 75 | | | | | |
| 1/21/2023 | 10.8 | 28.1 | | | | |
| 2/20/2024 | 6.01 | 6 76 | | | | |
| 3/31/2024 | 4 4 5 | 5.24 | | | | |
| 4/20/2024 | 4.45 | 4.82 | | | | |
| 5/31/2024 | 3.9 | 5.69 | | | | |
| 6/30/2024 | 4 46 | 5.05 | | | | |
| 7/31/2024 | 4.06 | 7.17 | | | | |
| 8/31/2024 | 2.78 | 4.02 | | | | |
| 9/30/2024 | 2.55 | 3.91 | | | | |
| 10/31/2024 | 7.05 | 8.33 | | | | |
| 11/30/2024* | 984 5.29 | 4900 5.68 | | | | |
| 12/31/2024 | 5.59 | 7.02 | | | | |
| 1/31/2025 | 4.78 | 5.37 | | | | |
| Average: | 5.29 | 7.60 | | | | |

Table-2: Effluent Copper Data Reported in Interim I

* Erroneous data. Actual lab report shows the average value to be 5.29 μ g/L and maximum value to 5.68 μ g/L.

The Tex-Tox daily average water quality standard for Total Copper in the receiving stream is 16.8 µg/L. The trigger concentrations for permit limits are as follows:

- 70% of daily average 11.8 μg/L (exceeding this threshold requires reporting)
- 85% of daily average 14.3 $\mu g/L$ (exceeding this threshold triggers permit limits)

Since the reported average effluent Total Copper concentration during the Interim I phase remains well below these trigger values, a permit limit for Total Copper should not be necessary for the plant. Therefore, the City of Tomball formally requests that TCEQ re-evaluate the need for a permit limit for Total Copper.

Justification of Permit

This permit application does not request an increase in flow. The amendment is being requested for the following two reasons:

1. Relocation of the Permitted Outfall

The proposed amendment seeks to relocate the permitted outfall approximately 35 feet south of its current location within the same ditch. See attached proposed yard piping sheet for the outfall locations. The existing outfall will be decommissioned and will no longer be used. All flows will be directed to the newly designated outfall location. The relocation is necessary to facilitate a more efficient construction sequence for the treatment units, particularly the installation of the Ultraviolet (UV) disinfection system. This adjustment will allow the existing chlorine contact basins to remain operational throughout the construction process.

2. Re-Evaluation of Discharge Limit on Copper

The City of Tomball requests TCEQ to re-evaluate the need for a limit on Total Copper in the permit.

During the most recent permit amendment, a limit on Total Copper was introduced. Under the Interim I phase, monitoring of Total Copper is required, while the Interim II, III, and final phases impose a daily average limit of 0.017 mg/L. The City has been reporting Total Copper concentrations in the effluent in compliance with the Interim I phase requirements. Table 1 below presents the limited effluent concentration data that was utilized to justify the inclusion of a Total Copper limit during the last major amendment review. This dataset includes an anomalous value of 54.3 µg/L recorded on June 27, 2023, which significantly skewed the overall average concentration.

| Sample Date | Effluent Copper Conc. (µg/L) |
|-------------|---------------------------------|
| 11/10/2022 | 13.5 |
| 6/20/2023 | 8.94 |
| 6/22/2023 | 8.48 |
| 6/27/2023 | 54.3 |
| 6/29/2023 | 7.66 |
| Average: | 18.58 |

Table 2 below presents the effluent Total Copper data reported by the City as part of the Interim I phase requirements. This dataset initially included erroneous values for November 2024 due to a data entry error. Upon review of the actual laboratory results, the values were corrected and updated accordingly in Table 2. The verified laboratory reports for November 2024 have been provided for the agency's review.

| Date | Effluent Copper Concentration (µg/L) | | | | | |
|-------------|--------------------------------------------|----------------------|--|--|--|--|
| | Average | Maximum | | | | |
| 12/31/2023 | 7.75 | 9.15 | | | | |
| 1/31/2024 | 10.8 | 28.1 | | | | |
| 2/29/2024 | 6.01 | 6.76 | | | | |
| 3/31/2024 | 4.45 | 5.24 | | | | |
| 4/30/2024 | 4.58 | 4.82 | | | | |
| 5/31/2024 | 3.9 | 5.69 | | | | |
| 6/30/2024 | 4.46 | 5.16 | | | | |
| 7/31/2024 | 4.06 | 7.17 | | | | |
| 8/31/2024 | 2.78 | 4.02 | | | | |
| 9/30/2024 | 2.55 | 3.91 | | | | |
| 10/31/2024 | 7.05 | 8.33 | | | | |
| 11/30/2024* | 984 5.29 | 4900 5.68 | | | | |
| 12/31/2024 | 5.59 | 7.02 | | | | |
| 1/31/2025 | 4.78 | 5.37 | | | | |
| Average: | 5.29 | 7.60 | | | | |

Table-2: Effluent Copper Data Reported in Interim I

* Erroneous data. Actual lab report shows the average value to be 5.29 μ g/L and maximum value to 5.68 μ g/L.

The Tex-Tox daily average water quality standard for Total Copper in the receiving stream is 16.8 μ g/L. The trigger concentrations for permit limits are as follows:

- 70% of daily average 11.8 μ g/L (exceeding this threshold requires reporting)
- 85% of daily average 14.3 $\mu g/L$ (exceeding this threshold triggers permit limits)

Since the reported average effluent Total Copper concentration during the Interim I phase remains well below these trigger values, a permit limit for Total Copper should not be necessary for the plant. Therefore, the City of Tomball formally requests that TCEQ re-evaluate the need for a permit limit for Total Copper.

City of Tomball South WWTP Nearby WWTPs WQ0010616002



Nearby WWTPs or Collection Systems

There are eight outfalls within three miles of the City of Tomball South WWTP; however, one permit has been canceled (WQ0014610001). The remaining permitted outfalls are owned and operated by Municipal Utility Districts (MUDs) and private water utilities that only serve the customers within their boundaries. The table and map included below provide details on the seven permitted outfalls.

These facilities were not contacted as this permit amendment is not to request an increase in flow.

| PERMIT | PERMIT | FACILITY | PERMITEE | SIC | FINAL | COUNTY | NOTES |
|--------------|----------|----------------------------------------------|----------------------------------------------------------------|------|-------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| NOMBLK | SIAIOS | IN/AIVIL | | CODL | (MGD) | | |
| WQ0014421001 | ACTIVE | Harris County MUD 401 WWTP | Harris County Municipal Utility District No 401 | 4952 | 0.45 | Harris | WWTP for Inverness Estates subdivision |
| WQ0012044001 | ACTIVE | Harris County MUD 368 WWTP | Harris County Municipal Utility District 368 | 4952 | 1.6 | Harris | WWTP for Three Lakes East, Three Lakes Plaza, and Pinecrest Forest subdivisions |
| WQ0011939001 | ACTIVE | Northwest Harris County MUD 15 WWTP | Northwest Harris County MUD 15 | 4952 | 3.12 | Harris | WWTP for Villages of Northpointe West, Villages of Northpointe, Westbourne, Village Creek, and Waterford Estates subdivisions |
| WQ0014181001 | ACTIVE | Mahaffey Road WTF | Aqua Texas, Inc | 4952 | 0.225 | Harris | WWTP for Willow Creek Estates subdivision |
| WQ0015284001 | ACTIVE | Merenco WWTP | Aqua Texas, Inc | 4952 | 0.6 | Harris | Facility not operational. |
| WQ0013893001 | ACTIVE | Dia-Den WWTP | Dia-Den, Ltd. | 5074 | 0.018 | Harris | Industrial waste from Keystone Home Pros |
| WQ0013942001 | ACTIVE | Inline Utilities WTF | Inline Utilities, LLC | 6515 | 0.25 | Harris | WWTP for mobile home community |
| WQ0014610001 | CANCELED | 501 Maple Ridge WWTP | South Central Water Company | N/A | N/A | N/A | N/A |


Initial Design Flow = 3.0 MGD Influent BOD Concentration = 270 mg/L Aerobic Digester Volume = 252,450 gallons Aeration Basin MLSS: 2,000 to 3,000 mg/L

| Solids Generated | Unit | 100% flow | 75% flow | 50% flow | 25% flow |
|---------------------------------------|-------------------|--------------|-------------|-------------|-------------|
| Influent BOD5 | lb/day | 6,756 | 5,067 | 3,378 | 1,689 |
| Solids Loading to digester | lb/day | 6,992 | 5,244 | 3,496 | 1,748 |
| Volatile Solids Reduction in Digester | % | 38% | 38% | 38% | 38% |
| VS/TS Ratio | | 0.8 | 0.8 | 0.8 | 0.8 |
| Solids After Digestion | lb/day | 4,866 | 3,650 | 2,433 | 1,217 |
| Dewatered Solids % | % | 15% | 15% | 15% | 15% |
| Wet Sludge for Disposal | gallons/day | 3,890 | 2,917 | 1,945 | 972 |
| 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 mechanical thickeners to thicken to 4% 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 a centrifuge unit for dewatering. The digested and dewatered sludge will be transported by K-3 Resources LP to a TCEQ authorized land application site.





Innovative approaches Practical results Outstanding service

801 Cherry Street, Suite 2800 + Fort Worth, Texas 76102 + 817-735-7300 + FAX 817-735-7491

www.freese.com

April 29, 2025

VIA EMAIL

Ms. Leah Whallon Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78711-3087

Re: Response to Notice of Deficiency Application to Amend Permit No.: WQ0010616002 (EPA I.D. No. TX0117595)

Dear Ms. Whallon:

The City of Tomball and Freese and Nichols, Inc. (FNI) received a letter from the Texas Commission on Environmental Quality (TCEQ) dated April 16, 2025, that requested a written response to address the deficiency related to the alternative language requirement associated with the major amendment application renewal to Wastewater Permit No. WQ0010616002. On behalf of the applicant, City of Tomball, FNI offers the following responses to the TCEQ NOD.

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

The portion of the NORI provided in the letter was accurate and did not contain any errors or omissions.

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

Attached under separate cover in the email response is the Spanish-translated NORI.

If you have questions, please contact me at katie.leatherwood@freese.com or Mr. Zackary Bowman at zbowman@tomballtx.gov.

Sincerely,

cc:

Kalie Leatherwood, P.G. Freese and Nichols, Inc.

Mr. Zackary Bowman, City of Tomball Mr. Will Goff, City of Tomball

Attachments

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. WQ00

SOLICITUD. *La Ciudad de Tomball, 401 Market Street, Tomball, Texas 77375*, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0010616002 (EPA I.D. No. TX 0117595) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar reubicación del emisario, actualización en el proceso de tratamiento y reevaluación de los requerimientos de cobre. La planta está ubicada *aproximadamente 4,800 pies al este de la intersección de Holderrieth Road y State Highway 249* en el Condado de *Harris*, Texas 77375. La ruta de descarga es del sitio de la planta a *a Harris County Flood Control District (HCFCD), de allí a Willow Creek, de allí a Spring Creek*. La TCEQ recibió esta solicitud el *10 de abril de 2025*. La solicitud para el permiso estará disponible para leerla y copiarla en *Obras Públicas de la Ciudad de Tomball, 501 James Street, Tomball, el Condado* antes de la fecha de publicación de este aviso en el periódico. 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.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.6075,30.066388&level=18

[Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does ot meet the above description, do not include the sentence: 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 DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible

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

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

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

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

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

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en <u>www.tceq.texas.gov/goto/cid</u>. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 más información de la Ciudad de Tomball en la dirección indicada anteriormente o llamando al Sr. Will Goff, Superintendente de Servicios Públicos, al 281-290-1400.

Fecha de emisión: [Date notice issued]