



Technical Package Cover Page

This file contains the following documents:

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

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



Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

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

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

Plain Language Summary

DOMESTIC WASTEWATER

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

City of Houston (CN600128995) operates the Upper Brays Wastewater Treatment Facility (RN101607174), an activated sludge wastewater treatment facility. The facility is located at 13525 West Houston Center Boulevard, in Houston, Harris County, Texas 77082.

This application is for a renewal to discharge an annual average flow of 18,000,000 gallons per day of treated domestic wastewater via Outfall 001.

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* (*E. coli*). Additional potential pollutants are included in the permit application package in Domestic Technical Report 1.0, Section 7 – Pollutant Analysis of Treated Effluent and Domestic Technical Report 4.0. Domestic wastewater is treated by activated sludge with combined nitrification. Treatment units include bar screens for preliminary treatment, aeration basins for biological treatment, secondary clarifiers for solids settling, and chlorine contact basins for disinfection. Solids from the facility are stabilized in an aerobic digester, thickened in an gravity thickener, and dewatered on a belt press before being hauled to a landfill for disposal.

Resumen en Lenguaje Sencillo

AGUAS RESIDUALES DOMÉSTICAS

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

La ciudad de Houston (CN600128995) opera la instalación de tratamiento de aguas residuales Upper Brays Wastewater Treatment Facility (RN101607174), un lodos activados - aireación prolongada instalación de tratamiento de aguas residuales. La instalación está situada en 13525 West Houston Center Boulevard, Houston, en el condado de Harris, Texas 77082.

Esta solicitud es para la renovación para descargar un flujo medio anual de 18.000.000 galones por día de aguas residuales domesticas tratadas por el emisario 001.

Se espera que los vertidos de la instalación contengan demanda bioquímica de oxígeno carbónico de cinco días (CBOD5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH3-N), y Escherichia coli (E. coli). Otros contaminantes potenciales se incluyen en el Informe Técnico Doméstico 1.0, Sección 7 - Análisis de Contaminantes del Efluente Tratado y en la hoja de trabajo doméstica 4.0. Las aguas residuales domésticas se tratan con lodos activados con nitrificación combinada. Las unidades de tratamiento incluyen pantalla de barra para tratamiento preliminar, cuencas de aireación y canales para tratamiento biológico, clarificadores secundario para la sedimentación de sólidos, y cuenca de contacto con el cloro para la desinfección. Sólidos de la instalación se estabilizan en un digestor aeróbico, se espesan en un espesador por gravedad y se deshidratan en una prensa de cinta antes de ser transportados a un vertedero para su eliminación.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0010495116

APPLICATION. City of Houston, 10500 Bellaire Boulevard, Houston, Texas 77072, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010495116 (EPA I.D. No. TX0088153) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 18,000,000 gallons per day. The domestic wastewater treatment facility is located at 13525 West Houston Center Boulevard, near the city of Houston, in Harris County, Texas 77082. The discharge route is from the plant site to Brays Bayou; thence to Houston Ship Channel/Buffalo Bayou Tidal. TCEQ received this application on May 10, 2024. The permit application will be available for viewing and copying at Houston Public Works, Wastewater Operations Building, 10500 Bellaire Boulevard, Houston, in Harris County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.590833,29.716944&level=18>

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

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from City of Houston at the address stated above or by calling Mr. Walid Samarneh, P.E., Managing Engineer, at 832-395-5771.

Issuance Date: May 29, 2024

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 RENOVACION

PERMISO NO. WQ0010495116

SOLICITUD. La Ciudad de Houston, 10500 Bellaire Boulevard, Houston, Texas 77072, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0010495116 (EPA I.D. No. TX0088153) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio anual de 18,000,000 galones por día. La facilidad está ubicada 13525 West Houston Center Boulevard, en el Condado de Harris, Texas 77082. La ruta de descarga es del sitio de la planta al pantano Brays Bayou; de allí al Canal para buques de Houston/la marea del pantano Buffalo Bayou. La TCEQ recibió esta solicitud en Mayo 10, 2024. La solicitud para el permiso está disponible para leerla y copiarla en la Ciudad de Houston, Trabajos Públicos de Houston, Operaciones de Wastewater edificio, biblioteca, 10500 Bellaire Boulevard, Houston, Condado de Harris, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.590833,29.716944&level=18>

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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

INFORMACIÓN DISPONIBLE ONLINE. Para más detalles sobre el estado de la aplicación, visite la base de datos integrada del Comisario al www.tceq.texas.gov/goto/cid. Buscar en la base de datos usando el número de permiso para esta aplicación, que se puede encontrar al inicio 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 información adicional del La Ciudad de Houston a la dirección indicada arriba o llamando a Sr. Walid Samarneh, P.E., Ingeniero Gerente, al (832) 395-5771.

Fecha de emission: 29 de mayo de 2024

Texas Commission on Environmental Quality



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

RENEWAL

PERMIT NO. WQ0010495116

APPLICATION AND PRELIMINARY DECISION. City of Houston, 10500 Bellaire Boulevard, Houston, Texas 77072, has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010495116, which authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 18,000,000 gallons per day. TCEQ received this application on May 10, 2024.

The facility is located at 13525 West Houston Center Boulevard, in Harris County, Texas 77082. The treated effluent is discharged to Brays Bayou, thence to Houston Ship Channel/ Buffalo Bayou Tidal in Segment No. 1007 of the San Jacinto River Basin. The unclassified receiving water use is limited aquatic life use for Brays Bayou. The designated uses for Segment No. 1007 are navigation and industrial water supply. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.590833,29.716944&level=18>

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Houston Public Works, Wastewater Operations Building, 10500 Bellaire Boulevard, Houston, in Harris County, Texas.

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

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from City of Houston at the address stated above or by calling Mr. Walid Samarneh, P.E., Managing Engineer, at 832-395-5771.

Issuance Date: June 3, 2025

Comisión De Calidad Ambiental Del Estado De Texas



AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA ÉL PERMISO TPDES PARA AGUAS RESIDUALES MUNICIPALES

RENOVACIÓN

PERMISO NO. WQ0010495116

SOLICITUD Y DECISIÓN PRELIMINAR. Ciudad de Houston, 10500 Bellaire Boulevard, Houston, Texas 77072, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para una renovación del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) Permiso No. WQ0010495116, cuál autoriza la descarga de malgaste agua tratados domésticos en un flujo anual a no exceder 18,000,000 galones por día. La TCEQ recibió esta solicitud 10 de mayo de 2024.

La facilidad está ubicada en 13525 West Houston Center Boulevard, Condado de Harris, Texas 77082. El efluente tratado es descargado al pantano Brays Bayou; de allí al canal de Houston Ship Channel/Buffalo Bayou Tidal en la cuenca del Segmento No. 1007 del río San Jacinto River. Los usos no clasificados para las aguas del pantano Brays Bayou son uso limitados para las vidas acuática. Los usos designados para el Segmento No. 1007 es navegación y agua para las industrias. 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=-95.590833,29.716944&level=18>

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que, si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en el Departamento de Trabajos Públicos de Houston, Operaciones de Wastewater edificio, 10500 Bellaire Boulevard, Houston, Condado de Harris, Texas.

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

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

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. 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 agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

Todos los comentarios escritos del público y los pedidos para una reunión deben ser presentados a la Oficina del Secretario Principal, MC 105, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, TX 78711-3087 o por el internet a www.tceq.texas.gov/goto/comment durante los 30 días después de la publicación del aviso.

INFORMACION DISPONIBLE ONLINE. Para más detalles sobre el estado de la aplicación, visite la base de datos integrada del Comisario al www.tceq.texas.gov/goto/cid. Buscar en la base de datos usando el número de permiso para esta aplicación, que se puede encontrar al inicio de este aviso.

AGENCIA CONTACTOS Y INFORMACIÓN. Todos los comentarios escritos del público y los pedidos para una reunión deben ser por el internet www.tceq.texas.gov/goto/comment o por escrito a la Oficina del Secretario Principal, MC 105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que usted envíe formará parte del registro del TCEQ, incluidas las direcciones de correo electrónico. Si necesita más información en español sobre esta solicitud para un permiso o el proceso del permiso, por favor llame a El Programa de Educación Pública de la TCEQ, sin cobro, al 1-800-687-4040. La información general sobre la TCEQ puede ser encontrada en nuestro sitio de la red: www.tceq.texas.gov/goto/pep. Para información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del La Ciudad de Houston a la dirección indicada arriba o llamando a Sr. Walid Samarneh, P.E., Ingeniero Gerente, al 832-395- 5771.

Fecha de emission: 3 de junio de 2025



TPDES PERMIT NO. WQ0010495116
*[For TCEQ office use only - EPA I.D.
No. TX0088153]*

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

This is a renewal that replaces TPDES
Permit No. WQ0010495116 issued on
November 27, 2019.

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

City of Houston

whose mailing address is

10500 Bellaire Boulevard
Houston, Texas 77072

is authorized to treat and discharge wastes from the Upper Brays Wastewater Treatment
Facility, SIC Code 4952

located at 13525 West Houston Center Boulevard, in Harris County, Texas 77082

to Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal in Segment No. 1007 of
the San Jacinto River Basin

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

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

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

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

The annual average flow of effluent shall not exceed 18 million gallons per day (MGD), nor shall the average discharge during any two-hour period (2-hour peak) exceed 48,611 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (1,501)	15	25	35	One/day	Composite
Total Suspended Solids	15 (2,252)	25	40	60	One/day	Composite
Ammonia Nitrogen						
April - October	3 (450)	6	10	15	One/day	Composite
November - March	5 (751)	7	10	15	One/day	Composite
Total Kjeldahl Nitrogen*	Report (Report)	N/A	Report	N/A	One/week	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	63	N/A	200	N/A	Five/week	Grab

*See the Other Requirement No. 5, on page 34

2. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorine contact chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual and shall monitor total chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): CBOD₅, TSS, NH₃-N, chlorine residual, and *E. coli* should be taken after obtaining a 20-minute detention time in the chlorination basin and prior to dechlorination. Dissolved Oxygen, chlorine residual, and pH shall be taken after the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per day by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Minimum Self-Monitoring Requirements</u>	
	7-day Minimum	30-day Average	Measurement Frequency	Sample Type
Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51710) <i>Ceriodaphnia dubia</i> (3-brood chronic IC ₂₅ ¹)	78%	78%	1/quarter	Composite
Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51714) <i>Pimephales promelas</i> (7-day chronic IC ₂₅ ¹)	78%	78%	1/quarter	Composite

¹ The IC₂₅ is defined the inhibition concentration of effluent that would cause a 25% reduction in the specified endpoint.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

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

2. Concentration Measurements

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

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

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

- e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
 - f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
 - g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.
3. Sample Type
- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

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

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

2. Test Procedures

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

3. Records of Results

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

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

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

Division (MC 224).

7. Noncompliance Notification

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

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

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

10. Signatories to Reports

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

11. All POTWs must provide adequate notice to the Executive Director of the following:

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

PERMIT CONDITIONS**1. General**

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

2. Compliance

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

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

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

3. Inspections and Entry

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

4. Permit Amendment and/or Renewal

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

regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

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

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy

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

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

OPERATIONAL REQUIREMENTS

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

TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

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

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

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

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

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

- c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well,

container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

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

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

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

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SLUDGE PROVISIONS

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

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

A. General Requirements

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

B. Testing Requirements

1. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 12) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

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

TABLE 1

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

* Dry weight basis

3. Pathogen Control

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

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

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

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

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

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

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

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

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

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

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

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

Alternative 1

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

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

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

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

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

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

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

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

viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.

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

4. Vector Attraction Reduction Requirements

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

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

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

Alternative 10 -

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

C. Monitoring Requirements

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

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

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

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

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

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

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

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

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

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

A. Pollutant Limits

Table 2

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

Table 3

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

*Dry weight basis

B. Pathogen Control

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

C. Management Practices

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

D. Notification Requirements

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

E. Record Keeping Requirements

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

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

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

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

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

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

F. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

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

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

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

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

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

Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 12) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224), by September 30 of each year.

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

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

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

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

G. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

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

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

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

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

A. General Requirements

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

B. Record Keeping Requirements

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

C. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 12) and the Enforcement Division (MC 224).

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

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OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category A facility must be operated by a chief operator or an operator holding a Class A license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.
3. Chronic toxic criteria apply at the edge of the mixing zone. The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.
4. The permittee shall make provisions in the design of these facilities for the addition of effluent filters if future studies of the Houston Ship Channel show filtration to be necessary as an additional waste treatment process.
5. Reporting and monitoring requirements pursuant to 30 TAC §§ 319.1-319.11 for Total Kjeldahl Nitrogen (TKN) are suspended from the effective date of this permit. The Executive Director may request resumption of reporting and monitoring requirements within forty-five (45) days of written notice to the permittee.
6. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).
7. The permittee is also authorized to transport sludge from the wastewater treatment facility, by a licensed hauler or via pipeline, to another of the permittee's permitted wastewater treatment plants, to be treated and then disposed of with the sludge from the plant accepting the sludge.

The permittee shall keep records of all sludge removed from the wastewater treatment plant and these records shall include the following information:

- a. The volume of sludge transported to another treatment plant;
- b. The date(s) that sludge was transported;
- c. The identity of haulers, if applicable; and
- d. The TCEQ permit number, and location of the wastewater treatment plant to which the sludge is transported.

These records shall be maintained on a monthly basis and shall be reported to the TCEQ Regional Office (MC Region 12) and the TCEQ Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

8. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, five/week may be reduced to three/week. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (b)(9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403) and the approved City of Houston POTW pretreatment program submitted by the permittee. The pretreatment program was approved on **November 27, 1984**, and modified on **February 26, 1993**, **March 11, 2020** (nonsubstantial Streamlining Rule), and **June 14, 2021**.

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

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

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

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

- State and local law;
 - (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
 - (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
 - e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).
 - f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
 - g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
 - h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.
- 3. The permittee shall prepare annually a list of IUs which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS", SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **November** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

In addition, each **November** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §403.12(i), to the TCEQ Stormwater & Pretreatment Team (MC148) of the Water Quality Division. The report shall contain the following information as well as the information on the attached tables

in this section. The report summary shall be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218].

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
- (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code and categorical determination;
 - (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [rev. 10/14/05], then the list must also identify:
 - categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR §§ 403.12(e)(1) and (3);
 - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
 - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
 - (3) Control mechanism status.
 - Indicate whether the IU has an effective individual or general control mechanism, and the date such document was last issued, reissued, or modified;
 - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
 - Include the type of general control mechanisms; and
 - Report all NSCIU annual evaluations performed, as applicable.
 - (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
 - Total number of inspections performed; and
 - Total number of sampling events conducted.
 - (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
 - Compliant (C) - no violations during the pretreatment year reporting period;
 - Non-compliant (NC) - one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
 - Significant Noncompliance (SNC) - in accordance with requirements described above in this section.
 - (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.

- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, upset, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee
- d. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of significantly noncompliant IUs, giving the name of the newspaper and the date the list was published.
- e. The information required by this section including the information on the attached tables must be submitted. The permittee may submit the information in tabular form using the example table format provided. Please attach on a separate sheet those explanations to document various pretreatment activities, including IU permits that have expired, BMP violations, and required sampling events not conducted by the permittee as required.
- f. A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority.

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

- 4. The permittee shall provide adequate written notification to the Executive Director care of the Pretreatment Team (MC148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if the indirect discharger was directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

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

Revised March 2022

TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List**Reporting month/year:** _____, _____ **to** _____, _____**TPDES Permit No.:** _____ **Permittee:** _____ **Treatment Plant:** _____

PRETREATMENT PROGRAM STATUS REPORT UPDATED INDUSTRIAL USERS ¹ LIST																
Industrial User Name	SIC or NAICS Code	CIU ²	CONTROL MECHANISM				New User ³ (Y or N)	Times Inspected by the CA	Times Sampled by the CA	COMPLIANCE STATUS During the Pretreatment Year Reporting Period ⁴ (C = Compliant, NC = Noncompliant, SNC= Significant Noncompliance)						
			Y/N or NR ⁵	IND or GEN or NR	Last Action ⁶	TBLLs or TBLLs only ⁷				REPORTS				NSCIU Certifications	Effluent Limits	Narrative Standards
										BMR	90-Day	Semi-Annual	Self-Monitoring ⁸			

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

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

Reporting month/year: _____, _____ **to** _____, _____

TPDES Permit No: _____ **Permittee:** _____ **Treatment Plant:** _____

INDUSTRIAL USER INVENTORY MODIFICATIONS					
FACILITY NAME, ADDRESS AND CONTACT PERSON	ADD, CHANGE, DELETE (Including categorical reclassification to NSCIU or MTCIU)	IF DELETION: Reason For Deletion	IF ADDITION OR SIGNIFICANT CHANGE:		
			PROCESS DESCRIPTION	POLLUTANTS (Including any sampling waiver given for each pollutant not present)	FLOW RATE ⁹ (In gpd) R = Regulated U = Unregulated T = Total

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

TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken**Reporting month/year:** _____, _____ **to** _____, _____**TPDES Permit No:** _____ **Permittee:** _____ **Treatment Plant:** _____**Overall SNC** _____% **SNC ¹⁰ based on:** **Effluent Violations** _____%
Reporting Violations _____% **Narrative Standard Violations** _____%

Noncompliant Industrial Users - Enforcement Actions Taken															
Industrial User Name	Nature of Violation ¹¹				Number of Actions Taken					Penalties Collected (Do not Include Surcharge)	Compliance Schedule			Current Status Returned to Compliance: (Y or N)	Comments
	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	NOV	A.O.	Civil	Criminal	Other		Y or N	Date Issued	Date Due		

10 # %

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

_____ Reporting Requirements [WENDB-PSNC]

_____ Narrative Standards

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

BIOMONITORING REQUIREMENTS**CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER**

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

1. **Scope, Frequency, and Methodology**

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

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

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 33%, 44%, 59%, 78%, and 100% effluent. The critical dilution, defined as 78% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. The sublethal IC₂₅ of 78% is effective for both test species (see the EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS section). The IC₂₅ is the inhibition concentration of effluent that would cause a 25% reduction in survival or reproduction/growth when compared to the control.
- e. If a test species fails to pass the sublethal endpoint at the 78% effluent concentration, the testing frequency will increase to monthly for that test species until such time compliance with the IC₂₅ effluent limitation is demonstrated for a period of three consecutive months, at which time the quarterly testing frequency

may be resumed.

f. Testing Frequency Reduction

- 1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.
- 2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:
 - 1) a control mean survival of 80% or greater;
 - 2) a control mean number of water flea neonates per surviving adult of 15 or greater;
 - 3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;
 - 4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;
 - 5) a critical dilution CV% of 40 or less for young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test, unless statistically significant toxicity is demonstrated at the critical dilution, in which case the test shall be considered valid;
 - 6) a percent minimum significant difference of 47 or less for water flea reproduction, unless statistically significant sublethal toxicity is demonstrated at the critical dilution, in which case the test shall be considered valid; and
 - 7) a PMSD of 30 or less for fathead minnow growth, unless statistically significant sublethal toxicity is demonstrated at the critical dilution, in which case the test shall be considered valid.
- b. Statistical Interpretation
 - 1) For the water flea survival and survival test, the statistical analyses used

to determine the inhibition concentration of effluent that would cause a 25% reduction (IC25) in survival or mean young per female shall be as described in the methods manual referenced in Part 1.b.

- 2) For the fathead minnow larval survival and growth tests, the statistical analyses used to determine the IC25 in survival or growth shall be as described in the methods manual referenced in Part 1.b.
- 3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.
- 4) Most point estimates are derived from a mathematical model that assumes a continuous dose-response relationship. For any test result that demonstrates a non-continuous (threshold) response, or a non-monotonic dose-response relationship, the IC25 should be determined based on the method guidance manual referenced in Item 3.
- 5) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic dose-response relationship may be submitted, prior to the due date, for technical review of test validity and acceptability. The method guidance manual referenced in Item 3 will be used as the basis, along with best professional judgement, for making a determination of test validity and acceptability.

c. Dilution Water

- 1) Dilution water used in the toxicity tests shall be the receiving water collected at a point upstream of the discharge as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:
 - a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or
 - b) use the closest downstream perennial water unaffected by the discharge.
- 2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

- a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;
 - b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days);
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.
- 3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.
- d. Samples and Composites
 - 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.
 - 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.
 - 5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

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

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
 - 2) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter T4P3B, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter T6P3B, report the IC25 for survival.
 - 3) For the water flea, Parameter T5P3B, enter a "1" if the IC25 for reproduction is less than the critical dilution; otherwise, enter a "0."
 - 4) For the water flea, Parameter T7P3B, report the IC25 for reproduction.
 - 5) For the fathead minnow, Parameter T4P6C, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 6) For the fathead minnow, Parameter T6P6C, report the IC25 for survival.
 - 7) For the fathead minnow, Parameter T5P6C, enter a "1" if the IC25 for growth is less than the critical dilution; otherwise, enter a "0."
 - 8) For the fathead minnow, Parameter T7P6C, report the IC25 for growth.
- d. The permittee shall report the sublethal WET values for the 30-day average and the 7-day minimum under Parameter No. 51710 for the water flea and Parameter No. 51714 for the fathead minnow for the appropriate reporting period. If more than one valid test was performed during the reporting period for any one test species, those IC25s will be averaged arithmetically and reported as the daily average IC25. The data submitted should reflect the lowest lethal and sublethal test results during the reporting period.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Dates and Times Composites Collected

No. 1 FROM: _____ Date _____ Time _____ TO: _____ Date _____ Time _____

No. 2 FROM: _____ Date _____ Time _____ TO: _____ Date _____ Time _____

No. 3 FROM: _____ Date _____ Time _____ TO: _____ Date _____ Time _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	33%	44%	59%	78%	100%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						

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

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

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	33%	44%	59%	78%	100%
24h						
48h						
End of Test						

1. Is the IC 25 for reproduction less than the critical dilution (78%)? _____ YES
 _____ NO

2. Is the IC 25 for survival less than the critical dilution (78%)? _____ YES _____ NO

3. Enter percent effluent corresponding to each IC25 below:

IC25 survival = _____%

IC25 reproduction = _____%

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

Dates and Times No. 1 FROM: _____ Date Time TO: _____ Date Time
 Composites
 Collected No. 2 FROM: _____ TO: _____
 No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
33%							
44%							
59%							
78%							
100%							

* Coefficient of Variation = standard deviation x 100/mean

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
33%									
44%									
59%									
78%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

1. Is the IC 25 for growth less than the critical dilution (78%)? _____ YES _____ NO
2. Is the IC 25 for survival less than the critical dilution (78%)? _____ YES _____ NO
3. Enter percent effluent corresponding to each IC25 below:
 IC25 survival = _____ %
 IC25 reproduction = _____ %

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

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

1. Scope, Frequency, and Methodology

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

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

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in item 2.b., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- d. This permit may be amended to require a WET limit, a Best Management Practice (BMP), Chemical-Specific (CS) limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.
- e. As the dilution series specified in the Chronic Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted to comply with the minimum testing frequency defined in item b.

2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water - In accordance with item 1.c., the control and dilution water shall normally consist of standard, synthetic, moderately hard, reconstituted water. If the permittee utilizes the results of a chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a as the control and dilution water.
- c. Samples and Composites
 - 1) The permittee shall collect one composite sample from Outfall 001.
 - 2) The permittee shall collect the composite samples such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.
 - 5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

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

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted

during the previous calendar quarter.

- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TIE3D, enter a “0” if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter “1.”
 - 2) For the fathead minnow, Parameter TIE6C, enter a “0” if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter “1.”
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a “0” if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter “1.”
 - 2) For retest number 2, Parameter 22416, enter a “0” if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter “1.”

4. Persistent Mortality

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

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

5. Toxicity Reduction Evaluation

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

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

- 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
 - 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE action plan should describe the project staff, manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail

information regarding the TRE activities including:

- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
 - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

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

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

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that

demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in item 5.h. The report will also specify a corrective action schedule for implementing the selected control mechanism.

- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

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

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

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC₅₀ below:

24 hour LC₅₀ = _____% effluent

TABLE 2 (SHEET 2 OF 2)
FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC₅₀ below:

24 hour LC₅₀ = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010495116, EPA I.D. No. TX0088153, to discharge to water in the state.

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

Applicant: City of Houston
10500 Bellaire Boulevard
Houston, Texas 77072

Prepared By: John Hearn
Municipal Permits Team
Wastewater Permitting Section (MC 148)
Water Quality Division
(512) 239-5239

Date: April 16, 2025

Permit Action: Renewal

1. EXECUTIVE DIRECTOR RECOMMENDATION

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

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 18 million gallons per day (MGD). The existing wastewater treatment facility serves the Upper Brays

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 13525 West Houston Center Boulevard, in Harris County, Texas 77082.

Outfall Location:

Outfall Number	Latitude	Longitude
001	29.716756 N	95.588915 W

The treated effluent is discharged to Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal in Segment No. 1007 of the San Jacinto River Basin. The unclassified receiving water use is limited aquatic life use for Brays Bayou. The designated uses for Segment No. 1007 are navigation and industrial water supply.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Upper Brays Wastewater Treatment Facility is an activated sludge process plant operated in the conventional mode. Treatment units include bar screens, a grit chamber, three aeration basins, four final clarifiers, four aerobic sludge digesters, a gravity thickener, belt filter presses, two chlorine contact chambers and a dechlorination chamber. The facility is in operation.

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Fort Bend Regional Landfill, Permit No. 2270, in Fort Bend County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The facility does not appear to receive significant industrial wastewater contributions.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period April 2022 through April 2024. The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), and ammonia nitrogen (NH₃-N). The average of Daily Average value for *Escherichia coli* (*E. coli*) in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

<u>Parameter</u>	<u>Average of Daily Avg</u>
Flow, MGD	9.2
CBOD ₅ , mg/l	2.2
TSS, mg/l	3.6
NH ₃ -N, mg/l	
April-October	1.0
November-March	1.0
<i>E. coli</i> , CFU or MPN per 100 ml	1

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

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

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 18 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 48,611 gallons per minute (gpm).

City of Houston TPDES Permit No. WQ0010495116
Fact Sheet and Executive Director's Preliminary Decision

<u>Parameter</u>	<u>30-Day Average</u>		<u>7-Day</u>	<u>Daily</u>
	<u>mg/l</u>	<u>lbs/day</u>	<u>Average</u> <u>mg/l</u>	<u>Maximum</u> <u>mg/l</u>
CBOD ₅	10	1,501	15	25
TSS	15	2,252	25	40
NH ₃ -N				
April–October	3	450	6	10
November–March	5	751	7	10
Total Kjeldahl	Report	Report	N/A	Report
Nitrogen (TKN)				
DO (minimum)	4.0	N/A	N/A	N/A
<i>E. coli</i> , CFU or MPN per 100 ml	63	N/A	N/A	200

WET Limits

	<u>7-day minimum</u>	<u>30-day Average</u>
Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51710)		
<i>Ceriodaphnia dubia</i> (3-brood chronic IC25 ¹)	78%	78%
Sublethal Whole Effluent Toxicity (WET) limit 78% (Parameter 51714)		
<i>Pimephales promelas</i> (7-day chronic IC25 ¹)	78%	78%

¹ The IC25 is defined the inhibition concentration of effluent that would cause a 25% reduction in the specified endpoint.

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

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

<u>Parameter</u>	<u>Monitoring Requirement</u>
Flow, MGD	Continuous
CBOD ₅	One/day
TSS	One/day
NH ₃ -N	One/day
DO	One/day
<i>E. coli</i>	Five/week
TKN	One/week
WET Limit	One/quarter

B. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Fort Bend Regional Landfill, Permit No. 2270, in Fort Bend County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

C. PRETREATMENT REQUIREMENTS

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

The permittee has a pretreatment program which was approved by the EPA on POTW pretreatment program submitted by the permittee. The pretreatment program was approved on **November 27, 1984**, and modified on **February 26, 1993, March 11, 2020** (nonsubstantial Streamlining Rule), and **June 14, 2021**. This permit has appropriate pretreatment language for a facility of this size and complexity. The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which, during the preceding twelve months, were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of **November** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

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

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

D. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

- (1) The draft permit includes chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 33%, 44%, 59%, 78%, and 100%. The low-flow effluent concentration (critical dilution) is defined as 78% effluent. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.
 - (a) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
 - (b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
- (2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:
 - (a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).
 - (b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

E. SUMMARY OF CHANGES FROM APPLICATION

None.

F. SUMMARY OF CHANGES FROM EXISTING PERMIT

Effluent limitations and monitoring requirements in the draft permit remain the same as the existing permit requirements.

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

E. coli bacteria limits have been continued in the draft permit in accordance with the recent amendments to 30 TAC Chapters 309 and 319. The bacteria limits in the draft permit are consistent with the requirements of the Total Maximum Daily Load (TMDL), Project No. 72D, and any subsequent associated WQMP updates.

The TMDL project *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System* (TMDL Project No.1) has been withdrawn and is

no longer applicable.

The chlorine monitoring location on page 2 of the existing permit has been updated on page 2 of the draft permit.

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

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

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

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

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

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

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged to Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal in Segment No. 1007 of the San Jacinto River Basin. The unclassified receiving water use is limited aquatic life use for Brays Bayou. The designated uses for Segment No. 1007 are navigation and industrial water supply. The effluent limitations in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and/or revisions.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS's) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998; October 21, 1998, update). To make this determination for TPDES permits, TCEQ and EPA only considered

aquatic or aquatic-dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 1007 is currently listed on the State's inventory of impaired and threatened waters (the 2022 Clean Water Act Section 303(d) list). The listings are for dioxin in edible tissue and polychlorinated biphenyls (PCBs) in edible tissue in Houston Ship Channel (HSC) from a point immediately upstream of Greens Bayou Tidal to immediately upstream of the 69th Street WWTP outfall (Assessment Unit [AU] 1007_01), Sims Bayou Tidal from the HSC confluence to a point 11 km (6.8 mi) upstream (AU 1007_02), Hunting Bayou Tidal from the HSC confluence to Interstate Highway (IH)-10 (AU 1007_03), Brays Bayou Tidal from the HSC confluence to downstream of IH-45 (AU 1007_04), Vince Bayou Tidal from the HSC confluence to State Highway (SH) 225 (AU 1007_05), Berry Bayou from the HSC confluence to a point 2.4 km (1.5 mi) upstream of the Sims Bayou confluence (AU 1007_06), Buffalo Bayou from immediately upstream of 69th Street WWTP outfall to US 59 (AU 1007_07) and Little Vince Bayou Tidal from the Vince Bayou confluence to SH 225 (AU 1007_08). Segment No. 1007 is also listed for bacteria in water and toxicity in sediment in Vince Bayou Tidal from the HSC confluence to SH 225 (AU 1007_05). This is a public domestic wastewater treatment facility. The facility does not receive significant industrial wastewater contributions, therefore the effluent from this facility should not contribute to the toxicity in sediment impairment, and dioxin and PCBs in edible tissue impairment of this segment. This facility is designed to provide adequate disinfection and, when operated properly, should not add to the bacterial impairment of the segment. In addition, in order to ensure that the proposed discharge meets the stream bacterial standard, an effluent limitation of 63 CFU or MPN of *E. coli* per 100 ml has been continued in the draft permit.

Five Total Maximum Daily Loads for Indicator Bacteria in Brays Bayou Above Tidal and Tributaries (TMDL Project No.72D) has been approved for this segment.

On September 15, 2010, the TCEQ adopted *Five Total Maximum Daily Loads for Indicator Bacteria in Brays Bayou Above Tidal and Tributaries*. The EPA approved the TMDL on September 27, 2010. The TMDL addresses elevated levels of bacteria in multiple segments and assessment units of these bayous and their tributaries. The waste load allocation (WLA) for wastewater treatment facilities was established as the permitted flow for each facility multiplied by one-half the geometric mean criterion for bacteria. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the limits of one-half the bacteria geometric mean criterion for *E. coli*. To ensure that effluent limitations for this discharge are consistent with the WLAs provided in the TMDL, a concentration based effluent

limitation for *E. coli* of 63 CFU or MPN per 100 ml has been continued in the draft permit.

The pollutant analysis of treated effluent provided by the permittee in the application indicated 578 mg/l total dissolved solids (TDS), 60 mg/l sulfate, and 97.2 mg/l chloride present in the effluent. The segment criteria for Segment No. 1014 are 375 mg/l for TDS, 24 mg/l for sulfate, and 70 mg/l for chlorides. Based on dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment A of this Fact Sheet.

Monitoring and reporting of total Kjeldahl nitrogen (TKN) was an original requirement of WLE-1 (*Waste Load Evaluation for the Houston Ship Channel System in the San Jacinto River Basin*, 1984). WLE-1 has since been superseded by WLE-1R, and with deterministic modeling now used to set effluent limits for all dischargers, reporting of TKN was suspended.

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

(2) CONVENTIONAL PARAMETERS

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

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

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

(3) COASTAL MANAGEMENT PLAN

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

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

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

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

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

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

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

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 18 MGD and the 7-day, 2-year (7Q2) flow of 7.70 cubic feet per second (cfs) for Brays Bayou. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 18 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %:	93.53%	Chronic Effluent %:	78.34%
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Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness,

chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards, June 2010." The segment values are 40 mg/l for hardness (as calcium carbonate), 64 mg/l chlorides, 7.1 standard units for pH, and 17 mg/l for TSS. Segment values for Segment No. 1014 were used for this permit renewal review. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

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

(b) PERMIT ACTION

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

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 18 MGD and the harmonic mean flow of 17.97 cfs for Brays Bayou. The following critical effluent percentage is being used:

Human Health Effluent %: 60.78%

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

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

(b) PERMIT ACTION

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

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1007, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

(b) PERMIT ACTION

None.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

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

The existing permit includes chronic freshwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that there have been no WET limit violations in the past three years.

REASONABLE POTENTIAL (RP) DETERMINATION

The sublethal WET limits are retained. Therefore, a reasonable potential determination was not performed. Due to no WET limit violations in the past three years, both test species are eligible for the testing frequency reduction.

(b) PERMIT ACTION

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

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

(a) **SCREENING**

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

(b) **PERMIT ACTION**

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

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

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

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

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public

comment and is not a contested case proceeding.

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

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

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

For additional information about this application, contact John Hearn at (512) 239-5239.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WQ0010495116 issued on November 27, 2019.

B. APPLICATION

Application received on May 10, 2024.

C. MEMORANDA

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

D. MISCELLANEOUS

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

Agency guidelines.

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

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

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

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

Five Total Maximum Daily Loads for Indicator Bacteria in Brays Bayou Above Tidal and Tributaries (TMDL Project No. 72D).

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

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:	City of Houston (Upper Brays WWTF)
Permit Number, Outfall:	10495-116
Segment Number:	1007 Houston Ship Channel (using 1014)

Enter values needed for screening:		Data Source (edit if different)	
QE - Average effluent flow	18	MGD	
QS - Perennial stream harmonic mean flow	17.97	cfs	critical conditions memo
QE - Average effluent flow	27.8501	cfs	Calculated
CA - TDS - ambient segment concentration	386	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	64	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	23	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	600	mg/L	2022 TSWQS, Appendix A
CC - chloride - segment criterion	110	mg/L	2022 TSWQS, Appendix A
CC - sulfate - segment criterion	65	mg/L	2022 TSWQS, Appendix A
CE - TDS - average effluent concentration	578	mg/L	Permit application
CE - chloride - average effluent concentration	97.2	mg/L	Permit application
CE - sulfate - average effluent concentration	60	mg/L	Permit application

Screening Equation

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

No further screening for TDS needed if:	502.70	≤	600
No further screening for chloride needed if:	84.18	≤	110
No further screening for sulfate needed if:	45.49	≤	65

Permit Limit Calculations

TDS

Calculate the WLA	WLA = [CC(QE+QS) - (QS)(CA)]/QE	738.08
Calculate the LTA	LTA = WLA * 0.93	686.42
Calculate the daily average	Daily Avg. = LTA * 1.47	1009.03

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Calculate the daily maximum	Daily Max. = LTA * 3.11	2134.75
Calculate 70% of the daily average	70% of Daily Avg. =	706.32
Calculate 85% of the daily average	85% of Daily Avg. =	857.68

No permit limitations needed if:	578	≤	706.32		
Reporting needed if:	578	>	706.32	but ≤	857.68
Permit limits may be needed if:	578	>	857.68		

No permit limitations needed for TDS

Chloride

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	139.68
Calculate the LTA	$LTA = WLA * 0.93$	129.90
Calculate the daily average	Daily Avg. = LTA * 1.47	190.96
Calculate the daily maximum	Daily Max. = LTA * 3.11	404.00
Calculate 70% of the daily average	70% of Daily Avg. =	133.67
Calculate 85% of the daily average	85% of Daily Avg. =	162.31

No permit limitations needed if:	97.2	≤	133.67		
Reporting needed if:	97.2	>	133.67	but ≤	162.31
Permit limits may be needed if:	97.2	>	162.31		

No permit limitations needed for chloride

Sulfate

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	92.10
Calculate the LTA	$LTA = WLA * 0.93$	85.65
Calculate the daily average	Daily Avg. = LTA * 1.47	125.91
Calculate the daily maximum	Daily Max. = LTA * 3.11	266.38
Calculate 70% of the daily average	70% of Daily Avg. =	88.14
Calculate 85% of the daily average	85% of Daily Avg. =	107.02

No permit limitations needed if:	60	≤	88.14		
Reporting needed if:	60	>	88.14	but ≤	107.02
Permit limits may be needed if:	60	>	107.02		

No permit limitations needed for sulfate

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Attachment B: Calculated Water Quality Based Effluent Limitations

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

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

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

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

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

PERMIT INFORMATION

Permittee Name:	City of Houston
TPDES Permit No.:	WQ0010495116
Outfall No.:	001
Prepared by:	John Hearn
Date:	April 7, 2025

DISCHARGE INFORMATION

Receiving Waterbody:	Brays Bayou
Segment No.:	1007
TSS (mg/L):	17
pH (Standard Units):	7.1
Hardness (mg/L as CaCO ₃):	40
Chloride (mg/L):	64
Effluent Flow for Aquatic Life (MGD):	18
Critical Low Flow [7Q2] (cfs):	7.7
% Effluent for Chronic Aquatic Life (Mixing Zone):	78.34
% Effluent for Acute Aquatic Life (ZID):	93.53
Effluent Flow for Human Health (MGD):	18
Harmonic Mean Flow (cfs):	17.97
% Effluent for Human Health:	60.78
Human Health Criterion (select: PWS, FISH, or INC)	FISH

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

<i>Stream/River Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	60502.3	0.493		1.00	Assumed
Cadmium	6.60	-1.13	162028.99	0.266		1.00	Assumed
Chromium (total)	6.52	-0.93	237510.33	0.199		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	237510.33	0.199		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	128667.18	0.314		1.00	Assumed
Lead	6.45	-0.80	292173.53	0.168		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed

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Nickel	5.69	-0.57	97419.1 0	0.376		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	129609. 73	0.312		1.00	Assumed
Zinc	6.10	-0.70	173254. 99	0.253		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>FW Chronic Criterion (µg/L)</i>	<i>WLAa (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTAa (µg/L)</i>	<i>LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Aldrin	3.0	N/A	3.21	N/A	1.84	N/A	2.70	5.71
Aluminum	991	N/A	1059	N/A	607	N/A	892	1888
Arsenic	340	150	737	388	423	299	439	930
Cadmium	3.5	0.130	14.1	0.623	8.09	0.480	0.705	1.49
Carbaryl	2.0	N/A	2.14	N/A	1.23	N/A	1.80	3.81
Chlordane	2.4	0.004	2.57	0.00511	1.47	0.00393	0.00577	0.0122
Chlorpyrifos	0.083	0.041	0.0887	0.0523	0.0508	0.0403	0.0592	0.125
Chromium (trivalent)	269	35	1449	225	830	173	254	538
Chromium (hexavalent)	15.7	10.6	16.8	13.5	9.62	10.4	14.1	29.9
Copper	6.0	4.3	20.4	17.6	11.7	13.6	17.1	36.3
Cyanide (free)	45.8	10.7	49.0	13.7	28.1	10.5	15.4	32.7
4,4'-DDT	1.1	0.001	1.18	0.00128	0.674	0.00098 3	0.00144	0.0030 5
Demeton	N/A	0.1	N/A	0.128	N/A	0.0983	0.144	0.305
Diazinon	0.17	0.17	0.182	0.217	0.104	0.167	0.153	0.323
Dicofol [Kelthane]	59.3	19.8	63.4	25.3	36.3	19.5	28.6	60.5
Dieldrin	0.24	0.002	0.257	0.00255	0.147	0.00197	0.00288	0.0061 1
Diuron	210	70	225	89.4	129	68.8	101	213
Endosulfan I (<i>alpha</i>)	0.22	0.056	0.235	0.0715	0.135	0.0550	0.0809	0.171
Endosulfan II (<i>beta</i>)	0.22	0.056	0.235	0.0715	0.135	0.0550	0.0809	0.171
Endosulfan sulfate	0.22	0.056	0.235	0.0715	0.135	0.0550	0.0809	0.171
Endrin	0.086	0.002	0.0919	0.00255	0.0527	0.00197	0.00288	0.0061 1
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0128	N/A	0.00983	0.0144	0.0305
Heptachlor	0.52	0.004	0.556	0.00511	0.319	0.00393	0.00577	0.0122
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	1.126	0.08	1.20	0.102	0.690	0.0786	0.115	0.244
Lead	24	0.92	150	6.98	85.9	5.37	7.89	16.7
Malathion	N/A	0.01	N/A	0.0128	N/A	0.00983	0.0144	0.0305
Mercury	2.4	1.3	2.57	1.66	1.47	1.28	1.87	3.97
Methoxychlor	N/A	0.03	N/A	0.0383	N/A	0.0295	0.0433	0.0917
Mirex	N/A	0.001	N/A	0.00128	N/A	0.00098 3	0.00144	0.0030 5
Nickel	216	24.0	612	81.2	351	62.5	91.9	194
Nonylphenol	28	6.6	29.9	8.42	17.2	6.49	9.53	20.1
Parathion (ethyl)	0.065	0.013	0.0695	0.0166	0.0398	0.0128	0.0187	0.0397
Pentachlorophenol	9.6	7.4	10.3	9.45	5.91	7.27	8.68	18.3
Phenanthrene	30	30	32.1	38.3	18.4	29.5	27.0	57.1
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.14	0.0179	1.23	0.0138	0.0202	0.0427
Selenium	20	5	21.4	6.38	12.3	4.91	7.22	15.2
Silver	0.8	N/A	15.0	N/A	8.59	N/A	12.6	26.7

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				0.00025		0.00019	0.00028	0.0006
Toxaphene	0.78	0.0002	0.834	5	0.478	7	8	11
Tributyltin [TBT]	0.13	0.024	0.139	0.0306	0.0796	0.0236	0.0346	0.0733
2,4,5 Trichlorophenol	136	64	145	81.7	83.3	62.9	92.4	195
Zinc	54	54	227	274	130	211	191	405

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Water and Fish Criterion n (µg/L)</i>	<i>Fish Only Criterion n (µg/L)</i>	<i>Incidental Fish Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	1.0	115	1150	189	176	258	547
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.0000189	0.0000175	0.0000257	0.0000545
Anthracene	1109	1317	13170	2167	2015	2962	6266
Antimony	6	1071	10710	1762	1639	2408	5096
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	956	889	1306	2764
Benzidine	0.0015	0.107	1.07	0.176	0.164	0.240	0.509
Benzo(a)anthracene	0.024	0.025	0.25	0.0411	0.0383	0.0562	0.118
Benzo(a)pyrene	0.0025	0.0025	0.025	0.00411	0.00383	0.00562	0.0118
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.452	0.420	0.617	1.30
Bis(2-chloroethyl)ether	0.60	42.83	428.3	70.5	65.5	96.3	203
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	12.4	11.6	16.9	35.9
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	452	421	618	1308
Bromoform [Tribromomethane]	66.9	1060	10600	1744	1622	2384	5044
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	75.7	70.4	103	218
Chlordane	0.0025	0.0025	0.025	0.00411	0.00383	0.00562	0.0118
Chlorobenzene	100	2737	27370	4503	4188	6156	13024
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	301	280	411	870
Chloroform [Trichloromethane]	70	7697	76970	12663	11777	17312	36626
Chromium (hexavalent)	62	502	5020	826	768	1129	2388
Chrysene	2.45	2.52	25.2	4.15	3.86	5.66	11.9
Cresols [Methylphenols]	1041	9301	93010	15302	14231	20919	44259
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.00329	0.00306	0.00449	0.00951
				0.00021	0.00019	0.00029	0.00061
4,4'-DDE	0.00013	0.00013	0.0013	4	9	2	8
				0.00065	0.00061	0.00089	
4,4'-DDT	0.0004	0.0004	0.004	8	2	9	0.00190
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	778	724	1063	2250
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	6.98	6.49	9.53	20.1
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	979	910	1338	2831
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	5428	5048	7420	15698
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	3.69	3.43	5.03	10.6
1,2-Dichloroethane	5	364	3640	599	557	818	1732
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	90676	84329	123963	262261
Dichloromethane [Methylene Chloride]	5	13333	133330	21936	20401	29988	63445

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1,2-Dichloropropane	5	259	2590	426	396	582	1232
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	196	182	267	566
Dicofol [Kelthane]	0.30	0.30	3	0.494	0.459	0.674	1.42
				0.00003	0.00003	0.00004	0.00009
Dieldrin	2.0E-05	2.0E-05	2.0E-04	29	06	49	51
2,4-Dimethylphenol	444	8436	84360	13879	12908	18974	40143
Di- <i>n</i> -Butyl Phthalate	88.9	92.4	924	152	141	207	439
	7.80E-08	7.97E-08		1.31E-07	1.22E-07	1.79E-07	3.79E-07
Dioxins/Furans [TCDD Equivalents]			7.97E-07	07	07	07	07
Endrin	0.02	0.02	0.2	0.0329	0.0306	0.0449	0.0951
Epichlorohydrin	53.5	2013	20130	3312	3080	4527	9578
Ethylbenzene	700	1867	18670	3072	2857	4199	8884
		1.68E+0	1.68E+0	276400	257052	377867	799434
Ethylene Glycol	46744	7	8	79	74	52	00
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
				0.00016	0.00015	0.00022	0.00047
Heptachlor	8.0E-05	0.0001	0.001	5	3	4	5
				0.00047	0.00044	0.00065	
Heptachlor Epoxide	0.00029	0.00029	0.0029	7	4	2	0.00137
Hexachlorobenzene	0.00068	0.00068	0.0068	0.00112	0.00104	0.00152	0.00323
Hexachlorobutadiene	0.21	0.22	2.2	0.362	0.337	0.494	1.04
Hexachlorocyclohexane (<i>alpha</i>)	0.0078	0.0084	0.084	0.0138	0.0129	0.0188	0.0399
Hexachlorocyclohexane (<i>beta</i>)	0.15	0.26	2.6	0.428	0.398	0.584	1.23
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.2	0.341	3.41	0.561	0.522	0.766	1.62
Hexachlorocyclopentadiene	10.7	11.6	116	19.1	17.7	26.0	55.1
Hexachloroethane	1.84	2.33	23.3	3.83	3.57	5.24	11.0
Hexachlorophene	2.05	2.90	29	4.77	4.44	6.52	13.7
4,4'-Isopropylidenediphenol	1092	15982	159820	26294	24454	35946	76050
Lead	1.15	3.83	38.3	37.6	35.0	51.4	108
Mercury	0.0122	0.0122	0.122	0.0201	0.0187	0.0274	0.0580
Methoxychlor	2.92	3.0	30	4.94	4.59	6.74	14.2
		9.92E+0	9.92E+0	163208	151783	223121	472046
Methyl Ethyl Ketone	13865	5	6	1	5	7	7
Methyl <i>tert</i> -butyl ether [MTBE]	15	10482	104820	17245	16038	23576	49878
Nickel	332	1140	11400	4982	4633	6810	14408
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	3082	2866	4212	8912
N-Nitrosodiethylamine	0.0037	2.1	21	3.46	3.21	4.72	9.99
N-Nitroso-di- <i>n</i> -Butylamine	0.119	4.2	42	6.91	6.43	9.44	19.9
Pentachlorobenzene	0.348	0.355	3.55	0.584	0.543	0.798	1.68
Pentachlorophenol	0.22	0.29	2.9	0.477	0.444	0.652	1.37
					0.00097		
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.00105	9	0.00143	0.00304
Pyridine	23	947	9470	1558	1449	2130	4506
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	0.395	0.367	0.539	1.14
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	43.4	40.3	59.2	125
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	461	428	629	1332
Thallium	0.12	0.23	2.3	0.378	0.352	0.517	1.09
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.0181	0.0168	0.0247	0.0523
2,4,5-TP [Silvex]	50	369	3690	607	565	829	1755
				129045	120012	176417	373237
1,1,1-Trichloroethane	200	784354	7843540	3	1	7	6
1,1,2-Trichloroethane	5	166	1660	273	254	373	789
Trichloroethylene [Trichloroethene]	5	71.9	719	118	110	161	342

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2,4,5-Trichlorophenol	1039	1867	18670	3072	2857	4199	8884
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	27.1	25.2	37.1	78.5

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

	70% of Daily Avg.	85% of Daily Avg.
Aquatic Life		
Parameter	(µg/L)	(µg/L)
Aldrin	1.89	2.29
Aluminum	624	758
Arsenic	307	373
Cadmium	0.493	0.599
Carbaryl	1.26	1.53
Chlordane	0.00404	0.00491
Chlorpyrifos	0.0414	0.0503
Chromium (trivalent)	178	216
Chromium (hexavalent)	9.89	12.0
Copper	12.0	14.6
Cyanide (free)	10.8	13.1
4,4'-DDT	0.00101	0.00122
Demeton	0.101	0.122
Diazinon	0.107	0.130
Dicofol [Kelthane]	20.0	24.3
Dieldrin	0.00202	0.00245
Diuron	70.7	85.9
Endosulfan I (<i>alpha</i>)	0.0566	0.0687
Endosulfan II (<i>beta</i>)	0.0566	0.0687
Endosulfan sulfate	0.0566	0.0687
Endrin	0.00202	0.00245
Guthion [Azinphos Methyl]	0.0101	0.0122
Heptachlor	0.00404	0.00491
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.0809	0.0982
Lead	5.52	6.71
Malathion	0.0101	0.0122
Mercury	1.31	1.59
Methoxychlor	0.0303	0.0368
Mirex	0.00101	0.00122
Nickel	64.3	78.1
Nonylphenol	6.67	8.10
Parathion (ethyl)	0.0131	0.0159
Pentachlorophenol	6.08	7.38
Phenanthrene	18.9	22.9
Polychlorinated Biphenyls [PCBs]	0.0141	0.0171
Selenium	5.05	6.14
Silver	8.83	10.7
Toxaphene	0.00020	0.00024
	2	5
Tributyltin [TBT]	0.0242	0.0294
2,4,5 Trichlorophenol	64.7	78.5
Zinc	134	162

City of Houston TPDES Permit No. WQ0010495116
Fact Sheet and Executive Director's Preliminary Decision

	70% of Daily Avg.	85% of Daily Avg.
Human Health		
Parameter	(µg/L)	(µg/L)
Acrylonitrile	181	219
	0.00001	0.00002
Aldrin	80	19
Anthracene	2073	2517
Antimony	1686	2047
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	914	1110
Benzidine	0.168	0.204
Benzo(a)anthracene	0.0393	0.0477
Benzo(a)pyrene	0.00393	0.00477
Bis(chloromethyl)ether	0.432	0.524
Bis(2-chloroethyl)ether	67.4	81.8
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	11.8	14.4
Bromodichloromethane [Dichlorobromomethane]	432	525
Bromoform [Tribromomethane]	1668	2026
Cadmium	N/A	N/A
Carbon Tetrachloride	72.4	87.9
Chlordane	0.00393	0.00477
Chlorobenzene	4309	5232
Chlorodibromomethane [Dibromochloromethane]	288	349
Chloroform [Trichloromethane]	12118	14715
Chromium (hexavalent)	790	959
Chrysene	3.96	4.81
Cresols [Methylphenols]	14643	17781
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00314	0.00382
	0.00020	0.00024
4,4'-DDE	4	8
	0.00062	0.00076
4,4'-DDT	9	4
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	744	904
1,2-Dibromoethane [Ethylene Dibromide]	6.67	8.10
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	936	1137
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	5194	6307
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	3.52	4.28
1,2-Dichloroethane	573	695
1,1-Dichloroethylene [1,1-Dichloroethene]	86774	105368
Dichloromethane [Methylene Chloride]	20992	25490
1,2-Dichloropropane	407	495
1,3-Dichloropropene [1,3- Dichloropropylene]	187	227
Dicofol [Kelthane]	0.472	0.573
	0.00003	0.00003
Dieldrin	14	82
2,4-Dimethylphenol	13282	16128
Di- <i>n</i> -Butyl Phthalate	145	176

City of Houston TPDES Permit No. WQ0010495116
Fact Sheet and Executive Director's Preliminary Decision

	1.25E-07	1.52E-07
Dioxins/Furans [TCDD Equivalents]		
Endrin	0.0314	0.0382
Epichlorohydrin	3169	3848
Ethylbenzene	2939	3569
	264507	321187
Ethylene Glycol	26	39
Fluoride	N/A	N/A
	0.00015	0.00019
Heptachlor	7	1
	0.00045	0.00055
Heptachlor Epoxide	6	4
Hexachlorobenzene	0.00107	0.00130
Hexachlorobutadiene	0.346	0.420
Hexachlorocyclohexane (<i>alpha</i>)	0.0132	0.0160
Hexachlorocyclohexane (<i>beta</i>)	0.409	0.497
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.536	0.651
Hexachlorocyclopentadiene	18.2	22.1
Hexachloroethane	3.66	4.45
Hexachlorophene	4.56	5.54
4,4'-Isopropylidenediphenol	25162	30554
Lead	35.9	43.6
Mercury	0.0192	0.0233
Methoxychlor	4.72	5.73
	156185	189653
Methyl Ethyl Ketone	2	5
Methyl <i>tert</i> -butyl ether [MTBE]	16503	20039
Nickel	4767	5788
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	2948	3580
N-Nitrosodiethylamine	3.30	4.01
N-Nitroso-di- <i>n</i> -Butylamine	6.61	8.02
Pentachlorobenzene	0.558	0.678
Pentachlorophenol	0.456	0.554
Polychlorinated Biphenyls [PCBs]	0.00100	0.00122
Pyridine	1491	1810
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.377	0.458
1,1,2,2-Tetrachloroethane	41.4	50.3
Tetrachloroethylene [Tetrachloroethylene]	440	535
Thallium	0.362	0.439
Toluene	N/A	N/A
Toxaphene	0.0173	0.0210
2,4,5-TP [Silvex]	580	705
	123492	149955
1,1,1-Trichloroethane	4	1
1,1,2-Trichloroethane	261	317
Trichloroethylene [Trichloroethene]	113	137
2,4,5-Trichlorophenol	2939	3569
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	25.9	31.5



Application to Renew
TPDES Permit Number WQ0010495116
Upper Brays Wastewater Treatment Facility

Prepared Spring 2024

Application to Renew TPDES Permit Number WQ0010495116 Upper Brays Wastewater Treatment Facility

Permit Application Forms

Administrative Report 1.0
Technical Report 1.0
Worksheet 2.0
Worksheet 4.0
Worksheet 5.0
Worksheet 6.0

Attachments

1	Copy of Application Fee Check	Administrative Report 1.0, Section 1
2	Core Data Form	Administrative Report 1.0, Section 3.C.
3	Plain Language Summary	Administrative Report 1.0, Section 8.F.
4	USGS Map	Administrative Report 1.0, Section 13
5	Supplemental Permit Information Form	SPIF
6	Treatment Units	Technical Report 1.0, Section 2.B.
7	Process Flow Diagram	Technical Report 1.0, Section 2.C.
8	Site Drawing	Technical Report 1.0, Section 3 Worksheet 6.0, Section 1.E.
9	Laboratory Test Reports and COCs	Technical Report 1.0, Section 7, Table 1.0(2) Worksheet 4.0, Section 1 Worksheet 4.0, Section 2
10	Facility Operators	Technical Report 1.0, Section 8
11	WET Test Reports	Worksheet 5.0, Section 1 Worksheet 5.0, Section 3
12	Effluent Parameters Above the MAL	Worksheet 6.0, Section 2.C.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Houston

PERMIT NUMBER (If new, leave blank): WQ00 10495116

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

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

For TCEQ Use Only

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____



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	Renewal
<0.05 MGD	\$350.00 <input type="checkbox"/>	\$315.00 <input type="checkbox"/>
≥0.05 but <0.10 MGD	\$550.00 <input type="checkbox"/>	\$515.00 <input type="checkbox"/>
≥0.10 but <0.25 MGD	\$850.00 <input type="checkbox"/>	\$815.00 <input type="checkbox"/>
≥0.25 but <0.50 MGD	\$1,250.00 <input type="checkbox"/>	\$1,215.00 <input type="checkbox"/>
≥0.50 but <1.0 MGD	\$1,650.00 <input type="checkbox"/>	\$1,615.00 <input type="checkbox"/>
≥1.0 MGD	\$2,050.00 <input type="checkbox"/>	\$2,015.00 <input checked="" type="checkbox"/>

Minor Amendment (for any flow) \$150.00 ☐

Payment Information: [Attachment 1](#)

Mailed Check/Money Order Number: 21078142
Check/Money Order Amount: \$2,015.00
Name Printed on Check: City of Houston

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.

- ☒ Active ☐ 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
☐ Major Amendment with Renewal
☐ Major Amendment without Renewal
☒ Renewal without changes
☐ Minor Amendment with Renewal
☐ Minor Amendment without Renewal
☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: [Click to enter text.](#)

f. For existing permits:

Permit Number: WQ00 10495116

EPA I.D. (TPDES only): TX 0088153

Expiration Date: November 27, 2024

Section 3. Facility Owner (Applicant) and Co-Applcant 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 Houston

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

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

CN: 600128995

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

Prefix: Mr.

Last Name, First Name: Macchi, Randall V.

Title: Chief Operating Officer, Houston Public Works

Credential:

N/A 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?

[Click to enter text.](#)

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

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

CN: Click to enter text.

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

Prefix: Click to enter text.

Last Name, First Name: Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

Provide a brief description of the need for a co-permittee: Click to enter text.

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. **Attachment 2**

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: Mr.

Last Name, First Name: Samarneh, Walid

Title: Managing Engineer

Credential: P.E.

Organization Name: City of Houston

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-5771

E-mail Address: walid.samarneh@houstontx.gov

Check one or both: ☒

Administrative Contact

☒

Technical Contact

N/A B. Prefix: Click to enter text.

Last Name, First Name: Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

Organization Name: Click to enter text.

Mailing Address: Click to enter text.

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

Phone No.: Click to enter text.

E-mail Address: Click to enter text.

Check one or both: ☐

Administrative 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: Mr.

Last Name, First Name: Macchi, Randall V.

Title: Chief Operating Officer, Houston Public Works Credential:

Organization Name: City of Houston

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-2936

E-mail Address: randy.macchi@houstontx.gov

B. Prefix: Mr. Last Name, First Name: Whitmire, John
Title: Mayor Credential: Click to enter text.
Organization Name: City of Houston
Mailing Address: P.O. Box 1562 City, State, Zip Code: Houston, Texas 77251
Phone No.: 713-837-0311 E-mail Address: mayor@houstontx.gov

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: Mr. Last Name, First Name: Samarneh, Walid
Title: Managing Engineer Credential: P.E.
Organization Name: City of Houston
Mailing Address: 10500 Bellaire Blvd City, State, Zip Code: Houston, Texas 77072
Phone No.: 832-395-5771 E-mail Address: walid.samarneh@houstontx.gov

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: Mr. Last Name, First Name: Samarneh, Walid
Title: Managing Engineer Credential: P.E.
Organization Name: City of Houston
Mailing Address: 10500 Bellaire Blvd City, State, Zip Code: Houston, Texas 77072
Phone No.: 832-395-5771 E-mail Address: walid.samarneh@houstontx.gov

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mr. Last Name, First Name: Samarneh, Walid
Title: Managing Engineer Credential: P.E.
Organization Name: City of Houston
Mailing Address: 10500 Bellaire Blvd City, State, Zip Code: Houston, Texas 77072
Phone No.: 832-395-5771 E-mail Address: walid.samarneh@houstontx.gov

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: Mr.

Last Name, First Name: Samarneh, Walid

Title: Managing Engineer

Credential: P.E.

Organization Name: City of Houston

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-5771

E-mail Address: walid.samarneh@houstontx.gov

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 Houston, Houston Public Works, Wastewater Operations Building

Location within the building: Library

Physical Address of Building: 10500 Bellaire Blvd

City: Houston

County: Harris

Contact (Last Name, First Name): Samarneh, Walid

Phone No.: 832-395-5771 Ext.: N/A

E. Bilingual Notice Requirements

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

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

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

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

☒ Yes

☐ No

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

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

☒ Yes

☐ No

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

F. Plain Language Summary Template

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

Attachment: [Attachment 3](#)

N/A 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: [Click to enter text.](#)

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 101607174

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

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

Upper Brays Wastewater Treatment Facility

C. Owner of treatment facility: City of Houston

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

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

Prefix: [Click to enter text.](#)

Last Name, First Name: [Click to enter text.](#)

Title: [Click to enter text.](#)

Credential: [Click to enter text.](#)

Organization Name: City of Houston

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-5771

E-mail Address: walid.samarneh@houstontx.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: N/A

N/A E. Owner of effluent disposal site:

Prefix: [Click to enter text.](#)

Last Name, First Name: [Click to enter text.](#)

Title: [Click to enter text.](#)

Credential: [Click to enter text.](#)

Organization Name: [Click to enter text.](#)

Mailing Address: [Click to enter text.](#)

City, State, Zip Code: [Click to enter text.](#)

Phone No.: [Click to enter text.](#)

E-mail Address: [Click to enter text.](#)

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: [Click to enter text.](#)

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

Prefix: [Click to enter text.](#)

Last Name, First Name: [Click to enter text.](#)

Title: [Click to enter text.](#)

Credential: [Click to enter text.](#)

Organization Name: [Click to enter text.](#)

Mailing Address: [Click to enter text.](#)

City, State, Zip Code: [Click to enter text.](#)

Phone No.: [Click to enter text.](#)

E-mail Address: [Click to enter text.](#)

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: [Click to enter text.](#)

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☒ Yes ☐ No

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

[Click to enter text.](#)

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:

[Click to enter text.](#)

City nearest the outfall(s): Houston

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

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

☒ Yes ☐ No

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

- ☒ Authorization granted ☐ Authorization pending

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

Attachment: [Click to enter text.](#)

- 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: Harris, Chambers, and Galveston Counties

N/A 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:

[Click to enter text.](#)

- B. City nearest the disposal site: [Click to enter text.](#)

- C. County in which the disposal site is located: [Click to enter text.](#)

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

[Click to enter text.](#)

- E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: [Click to enter text.](#)

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?

☐ Yes ☐ No ☒ Not Applicable

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

[Click to enter text.](#)

C. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes ☒ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application: [Click to enter text.](#)

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account number: [Click to enter text.](#)

Amount past due: [Click to enter text.](#)

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, please provide the following information:

Enforcement order number: [Click to enter text.](#)

Amount past due: [Click to enter text.](#)

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: [Attachment 4](#)

- 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: [See Table of Contents](#)

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010495116

Applicant: City of Houston

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): Randall V. Macchi

Signatory title: Chief Operating Officer, Houston Public Works

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

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: [Attachment 5](#)

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) ☒ Yes
*(Required for all application types. Must be completed in its entirety and signed.
 Note: Form may be signed by applicant representative.)*

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

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

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

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

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

Things to Know:

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

Landowners Cross Reference List ☒ N/A ☐ Yes
(See instructions for landowner requirements)

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

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

Plain Language Summary ☒ Yes



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

A. Existing/Interim I Phase

Design Flow (MGD): 18.0

2-Hr Peak Flow (MGD): 70.0

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

N/A B. Interim II Phase

Design Flow (MGD): Click to enter text.

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

N/A C. Final Phase

Design Flow (MGD): Click to enter text.

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

D. Current Operating Phase

Provide the startup date of the facility: Existing

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.**

Influent is initially treated by mechanical bar screens (02), then biologically treated using activated sludge with combined nitrification (24), followed by secondary clarification (22), chlorination (51), dechlorination (50), and discharge to the receiving stream through Outfall 001. Sludge is treated by aerobic digestion (65), followed by a thickener (79), then dewatered using a belt press before being hauled to a landfill for disposal.

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)
Attachment 6		

C. Process Flow Diagram

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

Attachment: **Attachment 7**

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

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

- Latitude: 29.716756
- Longitude: -95.588916

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

- Latitude: N/A
- Longitude: N/A

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

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

Attachment: **Attachment 8**

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

Upper Brays service area. The facility serves residential areas around Alief, Bunker Hill Village, and the Royal Oaks Country Club.

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
Upper Brays Collection System	City of Houston	Publicly Owned	11604
Harris County MUD 372	Harris County MUD 372	Publicly Owned	Unknown
Bunker Hill Village	Bunker Hill Village	Publicly Owned	3761
		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.

Click to enter text.

Section 5. Closure Plans (Instructions Page 45)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

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: Prior to December 1988

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.**

N/A

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

No changes from the existing permit.

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*.

Other Requirements No. 7 – Sludge records are maintained as required

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.

Click to enter text.

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.

Click to enter text.

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.

Click to enter text.

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 FF92 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:

Click to enter text.

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.

Click to enter text.

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.

Click to enter text.

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.

Click to enter text.

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.

Click to enter text.

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

1. Acceptance of sludge from other WWTPs

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

☐ Yes ☒ No

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

Click to enter text.

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 BOD₅ 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.

Click to enter text.

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.

Click to enter text.

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.

Table 1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities [Attachment 9](#)

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l	2.30	2.30	1	Comp	2/16/2024 @ 8:00 am
Total Suspended Solids, mg/l	8.1	8.1	1	Comp	2/16/2024 @ 8:00 am
Ammonia Nitrogen, mg/l	<0.0204	<0.0204	1	Comp	2/16/2024 @ 8:00 am
Nitrate Nitrogen, mg/l	26.0	26.0	1	Comp	2/16/2024 @ 8:00 am

Total Kjeldahl Nitrogen, mg/l	1.58	1.58	1	Comp	2/16/2024 @ 8:00 am
Sulfate, mg/l	60.0	60.0	1	Comp	2/16/2024 @ 8:00 am
Chloride, mg/l	97.2	97.2	1	Comp	2/16/2024 @ 8:00 am
Total Phosphorus, mg/l	23.9	23.9	1	Comp	2/16/2024 @ 8:00 am
pH, standard units	6.80	6.80	1	Grab	2/15/2024 @ 7:10 am
Dissolved Oxygen*, mg/l	7.80	7.80	1	Grab	2/15/2024 @ 7:10 am
Chlorine Residual, mg/l	<0.100	<0.100	1	Grab	2/15/2024 @ 7:10 am
<i>E.coli</i> (CFU/100ml) freshwater	4	4	1	Grab	2/15/2024 @ 7:10 am
Enterococci (CFU/100ml) saltwater	N/A				
Total Dissolved Solids, mg/l	578	578	1	Comp	2/16/2024 @ 8:00 am
Electrical Conductivity, μ mohs/cm, †	N/A				
Oil & Grease, mg/l	<1.72	<1.72	1	Grab	2/16/2024 @ 8:59 am
Alkalinity (CaCO ₃)*, mg/l	61.1	61.1	1	Comp	2/16/2024 @ 8:00 am

*TPDES permits only

†TLAP permits only

N/A 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					
Fluoride, mg/l					
Aluminum, mg/l					
Alkalinity (CaCO ₃), mg/l					

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: [Attachment 10](#)

Facility Operator's License Classification and Level: [Click to enter text.](#)

Facility Operator's License Number: [Click to enter text.](#)

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

- ☒ Design flow \geq 1 MGD
- ☒ Serves \geq 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)
- ☐ Long Term Storage (≥ 2 years)
- ☐ Methane or Biogas Recovery
- ☐ Other Treatment Process: [Click to enter text.](#)

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
Disposal in Landfill	On-Site Owner or Operator	Not Applicable	950.54	Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

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: Fort Bend Regional Landfill

TCEQ permit or registration number: 2270

County where disposal site is located: Fort Bend

E. Transportation method

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

Name of the hauler: FCC Environmental

Hauler registration number: 24903

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	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Marketing and Distribution of sludge	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Sludge Surface Disposal or Sludge Monofill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Temporary storage in sludge lagoons	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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
- ☐ None of the above

Attachment: [Click to enter text.](#)

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

[Click to enter text.](#)

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: [Click to enter text.](#)

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: [Click to enter text.](#)

Provide the following information:

Volume and frequency of sludge to the lagoon(s): [Click to enter text.](#)

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.

[Click to enter text.](#)

D. Site development plan

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

[Click to enter text.](#)

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)
Attachment: [Click to enter text.](#)
- 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: [Click to enter text.](#)
- 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)

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:

Reclaimed water authorization R10495116

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:

On March 31, 2021 the U.S. District Court for the Southern District of Texas approved entry of a Consent Decree (Civil Action No. 4:18-cv-03368) embodying the agreement of the City of Houston ("City") with the United States Environmental Protection Agency ("EPA") and the State of Texas ("State") to improve the City's Wastewater Treatment and Collection System including requirements to address sanitary sewer overflows ("SSOs") and wastewater treatment plant permit exceedances. The consent decree provides formal authorization for the City to continue and build upon its prior and ongoing work for wastewater assessment and rehabilitation programs over the next 15 years. Details of the approved consent decree are posted on the City's website at <https://www.publicworks.houstontx.gov/>.

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: [Click to enter text.](#)

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

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

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

CERTIFICATION:

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

Printed Name: Randall V. Macchi

Title: Chief Operating Officer, Houston Public Works

Signature: _____

Date: _____

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 to Section 2. If **yes**, provide the following:

Owner of the drinking water supply: [Click to enter text.](#)

Distance and direction to the intake: [Click to enter text.](#)

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

Attachment: [Click to enter text.](#)

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

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

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

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: [Click to enter text.](#)

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).

[Click to enter text.](#)

C. Sea grasses

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

☐ Yes ☐ No

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

[Click to enter text.](#)

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: Brays Bayou Above Tidal

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: Click to enter text.

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

- ☒ Man-made Channel or Ditch
- ☐ Open Bay
- ☐ Tidal Stream, Bayou, or Marsh
- ☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

- ☐ Intermittent - dry for at least one week during most years
- ☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses
- ☒ Perennial - normally flowing

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

- ☐ USGS flow records
- ☐ Historical observation by adjacent landowners
- ☐ Personal observation
- ☒ Other, specify: USGS Topographical Map

C. Downstream perennial confluences

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

None

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.

[Click to enter text.](#)

E. Normal dry weather characteristics

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

Low flow upstream of outfall. Moderate flow downstream of outfall. Receiving stream clear.
No wildlife observed.

Date and time of observation: April 16, 2024 at 9:53 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.

- | | |
|---|--|
| <input type="checkbox"/> Oil field activities | <input checked="" type="checkbox"/> Urban runoff |
| <input type="checkbox"/> Upstream discharges | <input type="checkbox"/> Agricultural runoff |
| <input type="checkbox"/> Septic tanks | <input type="checkbox"/> Other(s), specify: Click to enter text. |

B. Waterbody uses

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

- | | |
|--|---|
| <input type="checkbox"/> Livestock watering | <input type="checkbox"/> Contact recreation |
| <input type="checkbox"/> Irrigation withdrawal | <input type="checkbox"/> Non-contact recreation |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Navigation |
| <input type="checkbox"/> Domestic water supply | <input type="checkbox"/> Industrial water supply |
| <input type="checkbox"/> Park activities | <input checked="" type="checkbox"/> Other(s), specify: <u>Stormwater conveyance</u> |

C. Waterbody aesthetics

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

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

This worksheet is not required minor amendments without renewal.

Section 1. Toxic Pollutants (Instructions Page 78)

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

Grab ☐ Composite ☒

Date and time sample(s) collected: 2/15/2024 @ 11:28 pm, 2/16/2024 @ 8:00 am

Table 4.0(1) – Toxics Analysis Attachment 9

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	54.4	54.4	1	2.5
Anthracene	<10	<10	1	10
Antimony	<5	<5	1	5
Arsenic	1.90	1.90	1	0.5
Barium	79.0	79.0	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	16.2	16.2	1	10
Bromoform	<10	<10	1	10
Cadmium	<1	<1	1	1
Carbon Tetrachloride	<2	<2	1	2
Carbaryl	<5	<5	1	5
Chlordane*	<0.2	<0.2	1	0.2
Chlorobenzene	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Chlorodibromomethane	<10	<10	1	10
Chloroform	41.2	41.2	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	9.46	9.46	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)	<0.20	<0.20	1	0.20
Diazinon	<0.5	<0.5	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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
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
Ethylbenzene	<10	<10	1	10
Fluoride	<500	<500	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	<5	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 (Lindane)	<0.05	<0.05	1	0.05
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	2.76	2.76	1	2
Nitrate-Nitrogen	26000	26000	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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Phenanthrene	<10	<10	1	10
Polychlorinated Biphenyls (PCB's) (*3)	<0.2	<0.2	1	0.2
Pyridine	<20	<20	1	20
Selenium	<5	<5	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			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)	62.5	62.5	1	10
Vinyl Chloride	<10	<10	1	10
Zinc	55.2	55.2	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: 2/15/2024 @ 11:28 pm, 2/16/2024 @ 8:00 am

Table 4.0(2)A – Metals, Cyanide, and Phenols Attachment 9

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony	<5	<5	1	5
Arsenic	1.90	1.90	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	9.46	9.46	1	2
Lead	<0.5	<0.5	1	0.5
Mercury	<0.005	<0.005	1	0.005
Nickel	2.76	2.76	1	2
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
Thallium	<0.5	<0.5	1	0.5
Zinc	55.2	55.2	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	41.2	41.2	1	10
Dichlorobromomethane [Bromodichloromethane]	16.2	16.2	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 [1,3-Dichloropropene]	<10	<10	1	10
1,2-Trans-Dichloroethylene	<10	<10	1	10
Ethylbenzene	<10	<10	1	10
Methyl Bromide	<50	<50	1	50
Methyl Chloride	<50	<50	1	50
Methylene Chloride	<20	<20	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	<50	<50	1	50
2,4-Dinitrophenol	<50	<50	1	50
2-Nitrophenol	<20	<20	1	20
4-Nitrophenol	<50	<50	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

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene	<10	<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

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.

[Click to enter text.](#)

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.

[Click to enter text.](#)

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

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

Grab ☐ Composite ☐

Date and time sample(s) collected: [Click to enter text.](#)

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: [Attachment 11](#)

48-hour Acute: [Click to enter text.](#)

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 of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal
Attachment 11			

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: 0

Average Daily Flows, in MGD: 0

Significant IUs - non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

Click to enter text.

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.

Click to enter text.

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.

E. Service Area Map

Attach a map indicating the service area of the POTW. The map should include the applicant's service area boundaries and the location of any known industrial users discharging to the POTW. Please see the instructions for guidance.

Attachment: **Attachment 8**

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.

Click to enter text.

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.

Click to enter text.

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
Attachment 12				

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.

Click to enter text.

N/A

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

A. General information

Company Name: [Click to enter text.](#)

SIC Code: [Click to enter text.](#)

Contact name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Telephone number: [Click to enter text.](#)

Email address: [Click to enter text.](#)

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).

Click to enter text.

C. Product and service information

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

Click to enter text.

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: [Click to enter text.](#)

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: [Click to enter text.](#)

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Category: Subcategories: [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: [Click to enter text.](#)

Subcategories: [Click to enter text.](#)

Category: [Click to enter text.](#)

Subcategories: [Click to enter text.](#)

Category: [Click to enter text.](#)

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.

[Click to enter text.](#)

Attachment 1

Copy of Application Fee Check

Administrative Report 1.0, Section 1

Attachment 2

Core Data Form

Administrative Report 1.0, Section 3.C.



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.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 600128995		RN 101607174

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
City of Houston					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits) 746001164	10. DUNS Number (if applicable)
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:	10500 Bellaire Boulevard				
	City	Houston	State	TX	ZIP 77072
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				walid.samarneh@houstontx.gov	
18. Telephone Number		19. Extension or Code		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 Name (Enter name of the site where the regulated action is taking place.)

Upper Brays Wastewater Treatment Facility

23. Street Address of the Regulated Entity:

(No PO Boxes)

13525 West Houston Center Boulevard

City

Houston

State

TX

ZIP

77082

ZIP + 4

24. County

Harris

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:

26. Nearest City

State

Nearest ZIP Code

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:

29.717775

28. Longitude (W) In Decimal:

-95.591854

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29. Primary SIC Code

(4 digits)

30. Secondary SIC Code

(4 digits)

31. Primary NAICS Code

(5 or 6 digits)

32. Secondary NAICS Code

(5 or 6 digits)

4952

22132

33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)

This facility treats domestic wastewater

34. Mailing Address:

10500 Bellaire Boulevard

City

Houston

State

TX

ZIP

77072

ZIP + 4

5212

35. E-Mail Address:

walid.samarneh@houston.tx.gov

36. Telephone Number

37. Extension or Code

38. Fax Number (if applicable)

(832) 395-5771

(832) 395-5838

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

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ0010495116			

SECTION IV: Preparer Information

40. Name:	Heather Maloney			41. Title:	Environmental Investigator V
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(832) 395-5756		(832) 395-5838	heather.maloney@houston.tx.gov		

SECTION V: Authorized Signature

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

Company:	City of Houston, Houston Public Works		Job Title:	Chief Operating Officer, Houston Public Works	
Name (In Print):	Randall V. Macchi			Phone:	(832) 395- 2936
Signature:				Date:	

Attachment 3

Plain Language Summary

Administrative Report 1.0, Section 8.F.

Plain Language Summary

DOMESTIC WASTEWATER

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

City of Houston (CN600128995) operates the Upper Brays Wastewater Treatment Facility (RN101607174), an activated sludge wastewater treatment facility. The facility is located at 13525 West Houston Center Boulevard, in Houston, Harris County, Texas 77082.

This application is for a renewal to discharge an annual average flow of 18,000,000 gallons per day of treated domestic wastewater via Outfall 001.

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* (*E. coli*). Additional potential pollutants are included in the permit application package in Domestic Technical Report 1.0, Section 7 – Pollutant Analysis of Treated Effluent and Domestic Technical Report 4.0. Domestic wastewater is treated by activated sludge with combined nitrification. Treatment units include bar screens for preliminary treatment, aeration basins for biological treatment, secondary clarifiers for solids settling, and chlorine contact basins for disinfection. Solids from the facility are stabilized in an aerobic digester, thickened in an gravity thickener, and dewatered on a belt press before being hauled to a landfill for disposal.

Resumen en Lenguaje Sencillo

AGUAS RESIDUALES DOMÉSTICAS

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

La ciudad de Houston (CN600128995) opera la instalación de tratamiento de aguas residuales Upper Brays Wastewater Treatment Facility (RN101607174), un lodos activados - aireación prolongada instalación de tratamiento de aguas residuales. La instalación está situada en 13525 West Houston Center Boulevard, Houston, en el condado de Harris, Texas 77082.

Esta solicitud es para la renovación para descargar un flujo medio anual de 18.000.000 galones por día de aguas residuales domesticas tratadas por el emisario 001.

Se espera que los vertidos de la instalación contengan demanda bioquímica de oxígeno carbónico de cinco días (CBOD5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH3-N), y Escherichia coli (E. coli). Otros contaminantes potenciales se incluyen en el Informe Técnico Doméstico 1.0, Sección 7 - Análisis de Contaminantes del Efluente Tratado y en la hoja de trabajo doméstica 4.0. Las aguas residuales domésticas se tratan con lodos activados con nitrificación combinada. Las unidades de tratamiento incluyen pantalla de barra para tratamiento preliminar, cuencas de aireación y canales para tratamiento biológico, clarificadores secundario para la sedimentación de sólidos, y cuenca de contacto con el cloro para la desinfección. Sólidos de la instalación se estabilizan en un digestor aeróbico, se espesan en un espesador por gravedad y se deshidratan en una prensa de cinta antes de ser transportados a un vertedero para su eliminación.

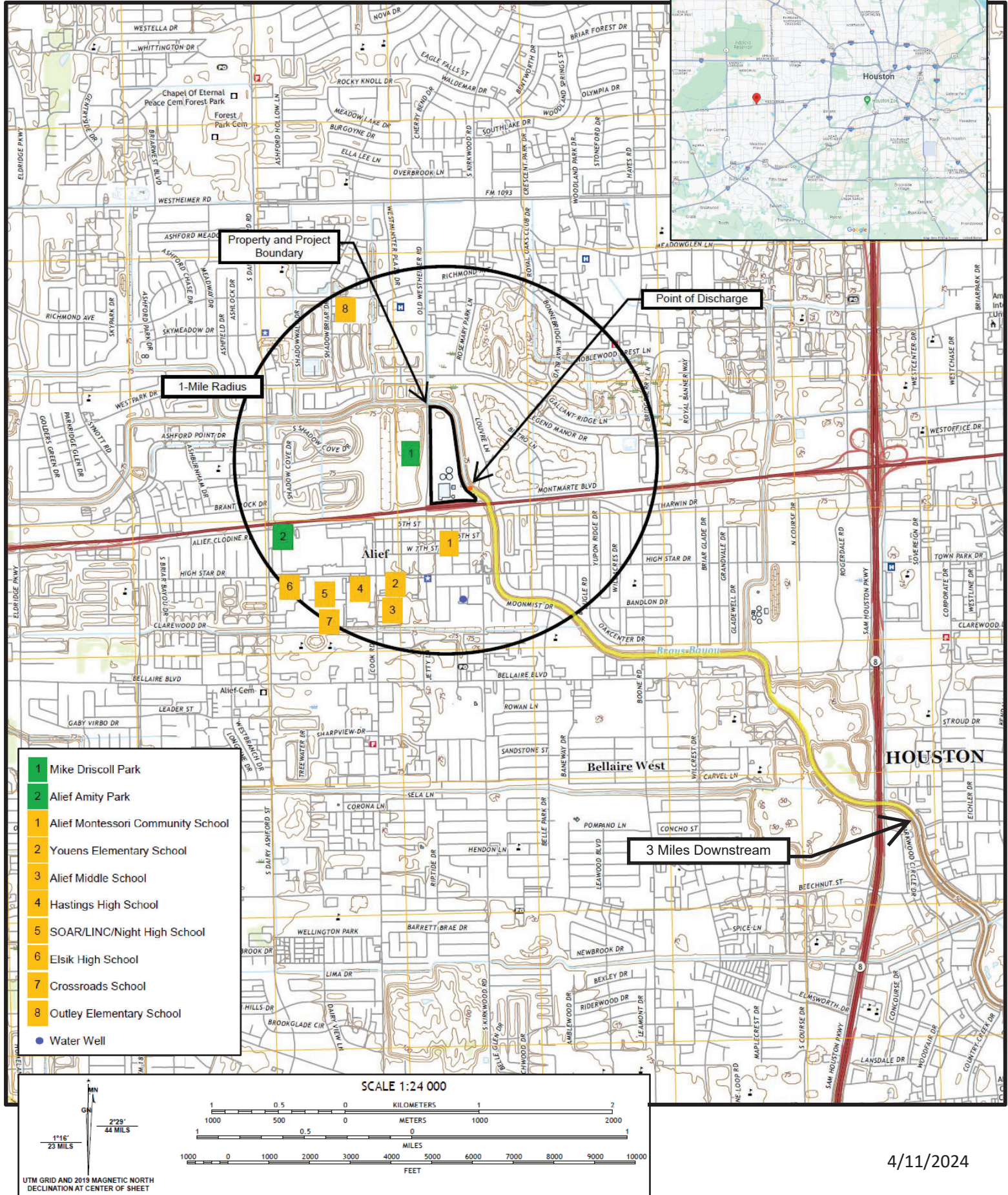
Attachment 4

USGS Map

Administrative Report 1.0, Section 13

USGS Map

Reproduced Portion of 7.5-minute USGS Quadrangle Map – Alief, TX



Attachment 5

Supplemental Permit Information Form

SPIF

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: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

____ Texas Historical Commission

____ U.S. Fish and Wildlife

____ Texas Parks and Wildlife Department

____ U.S. Army Corps of Engineers

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

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 WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: City of Houston

Permit No. WQ00 10495116EPA ID No. TX 0088153

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

13525 West Houston Center Boulevard, Houston, Harris County, Texas 77082

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

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

First and Last Name: Walid Samarneh

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

Title: Managing Engineer

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-2500 Ext.: Fax No.: 832-395-5839

E-mail Address: walid.samarneh@houstontx.gov

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

N/A

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

From Outfall 001 to Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal in Segment No. 1007 of the San Jacinto River Basin

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

Provide original photographs of any structures 50 years or older on the property. **N/A**

Does your project involve any of the following? Check all that apply. **N/A**

- ☐ 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):

N/A

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

Disturbances, vegetation, and land use are typical of a wastewater treatment facility site.

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:

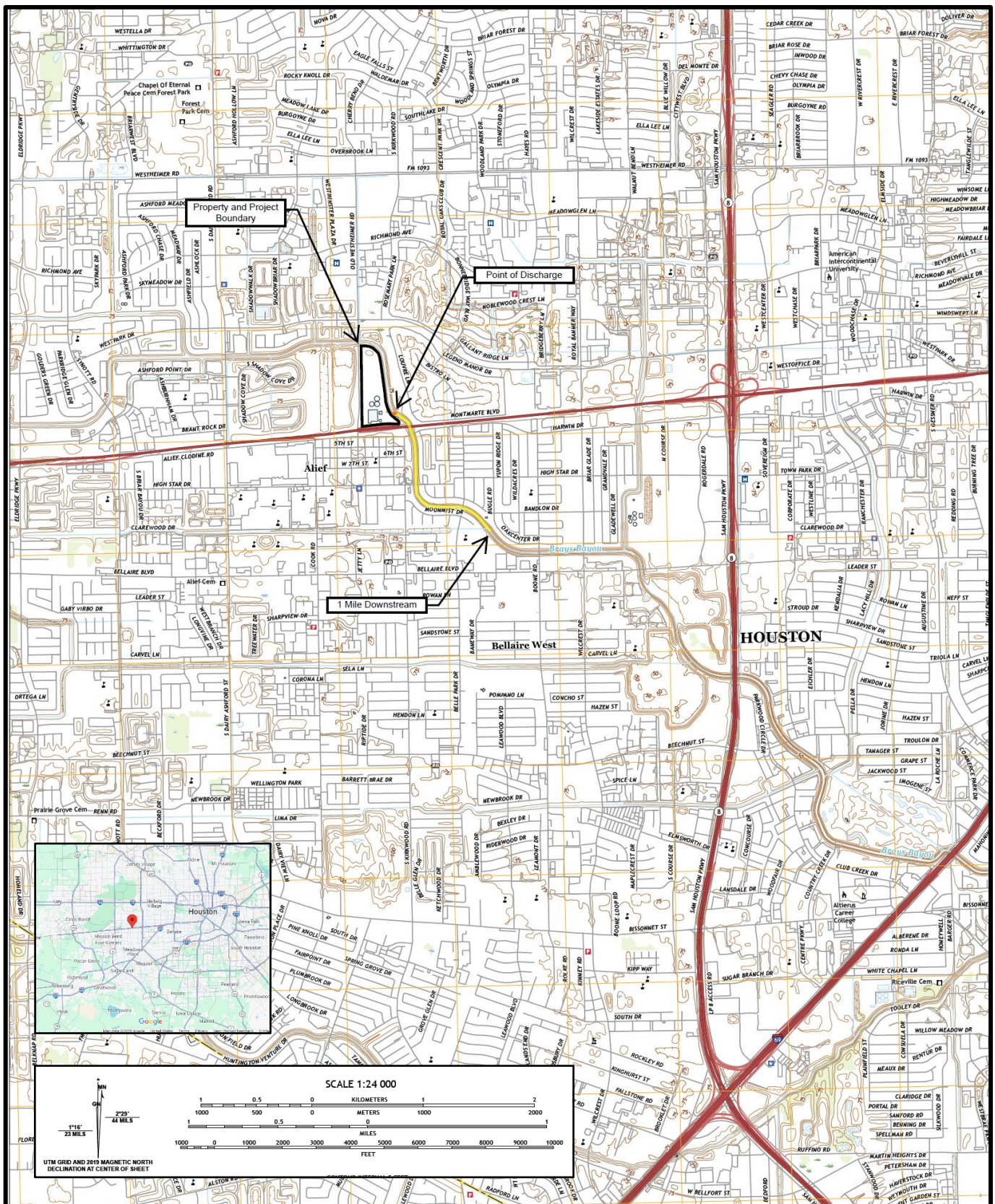
N/A

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

N/A

Vicinity Map and Edited USGS Map

Reproduced Portion of 7.5-minute USGS Quadrangle Map – Alief, TX



Attachment 6

Treatment Units

Technical Report 1.0, Section 2.B.

**CITY OF HOUSTON
UPPER BRAYS WWTF
TPDES PERMIT RENEWAL**

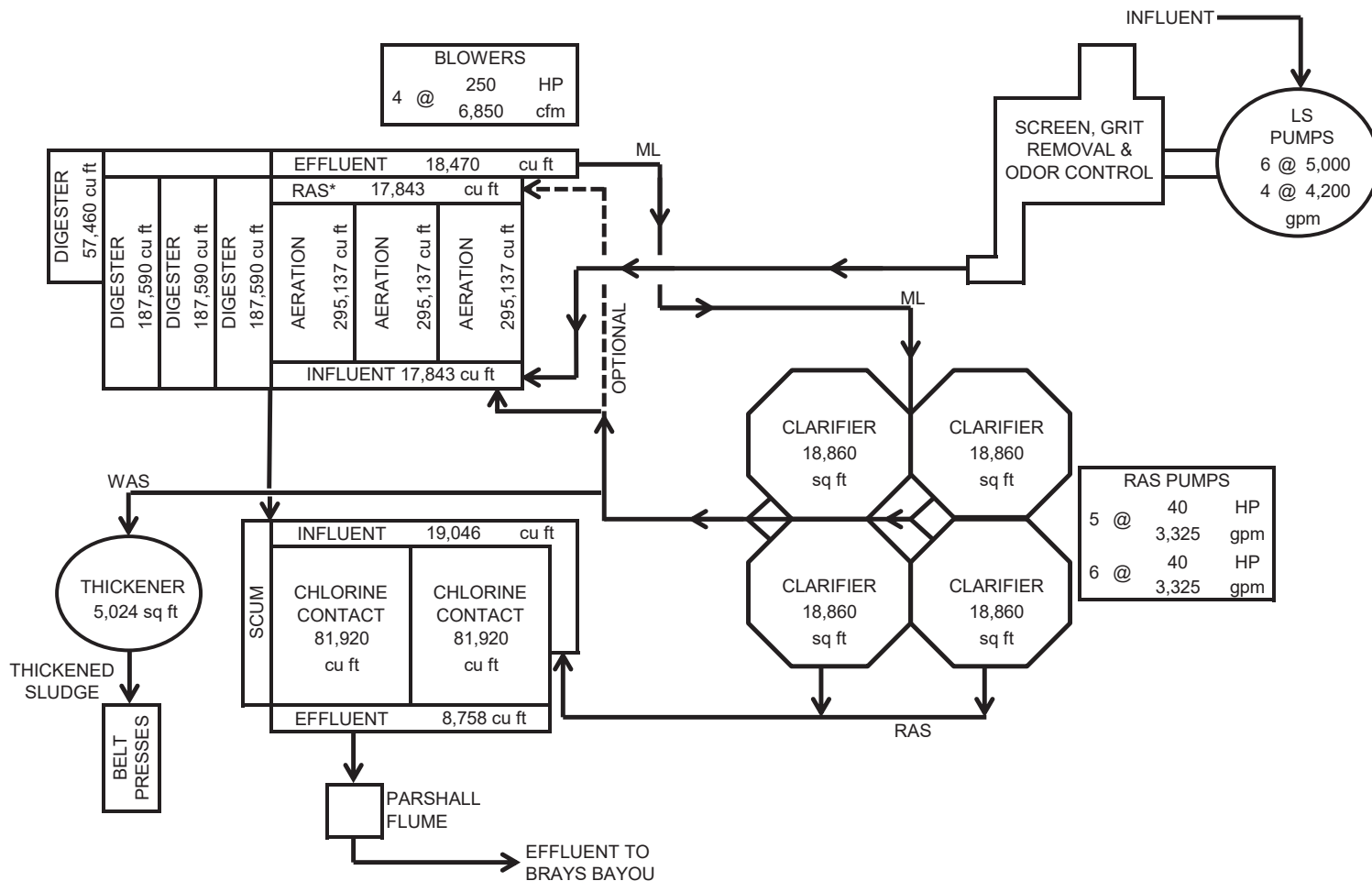
TREATMENT UNITS

Unit	Quantity	Dimensions
Aeration Basin	3	255' x 60' x 19.29'
Influent Channel	1	185' x 5' x 19.29'
Effluent Channel	1	191' x 5' x 19.29'
Clarifier (octagonal)	4	155' diameter x 12.83' SWD
Influent Chlorine Contact Basin	1	186' x 5' x 20.48'
Chlorine Contact Basin (parallel operation)	2	80' x 50' x 20.48'
Effluent Chlorine Contact Basin	1	113' x 5' x 15.5'
Thickener	1	80' diameter x 12' SWD
Aerobic Digester	1	85' x 50' x 13'
	3	277.5' x 50' x 13'

Attachment 7

Process Flow Diagram

Technical Report 1.0, Section 2.C.



*NOT IN USE

UPPER BRAYS WWTP - PROCESS FLOW DIAGRAM

PLANT LOCATION

13525 W. HOUSTON CENTER BLVD.
HOUSTON, TX 77082

QUADRANT
KEY MAP NUMBER

SOUTHWEST
570K

OVERALL PLANT CAPACITY (MGD)

	FIRM	TOTAL
LIFT STATION	60.19	67.39
	AVG.	2 HR PEAK
PLANT	19.3	90.5
PERMITTED FLOW LIMITS	18	70.0

UNIT PROCESS CAPACITY (MGD)

	DESIGN	2 HR PEAK
AERATION SYSTEM	19.3	NA
SECONDARY CLARIFIERS	45.3	90.5
DISINFECTION	NA	103.2

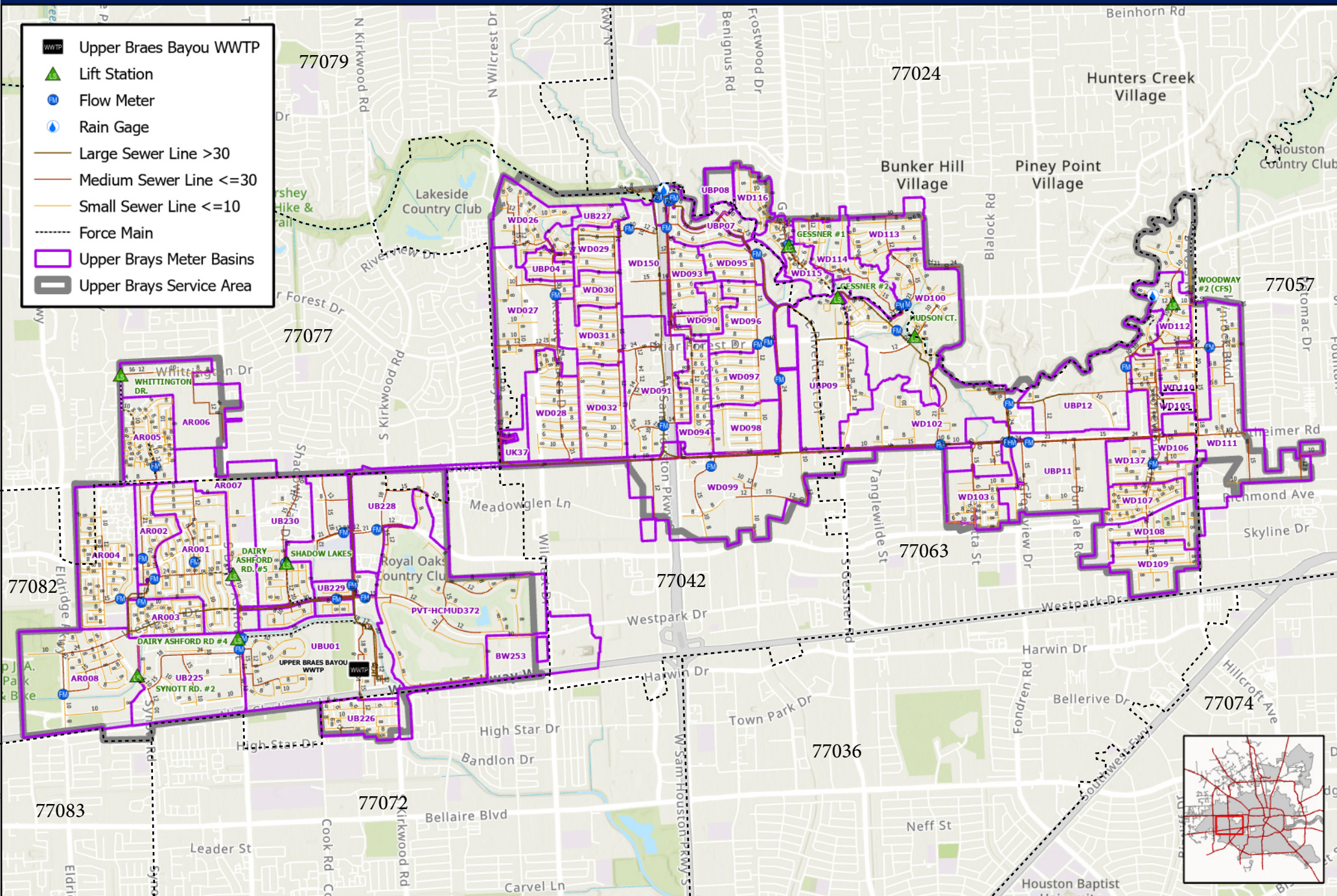


Attachment 8

Site Drawing

Technical Report 1.0, Section 3
Worksheet 6.0, Section 1.E.

Upper Brays Service Area



Attachment 9

Laboratory Test Reports and COCs

Technical Report 1.0, Section 7, Table 1.0(2)

Worksheet 4.0, Section 1

Worksheet 4.0, Section 2



March 08, 2024

Report # 153111

Revision # 0

ANALYTICAL REPORT

**City of Houston Wastewater Operations Laboratory
10500 Bellaire Blvd
Houston, TX 77072**

Regulatory Compliance

Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project Site: Upper Brays Pollutants

Enclosed are the results of analyses for samples received by the laboratory on 2/15/2024.
If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brandon Grimm
Division Manager



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:27

PDFFileStart [TOCPAGEMARKER] PDFFileEnd



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:27

Samples in this Report

Lab ID	Sample	Alias	Matrix	Date Sampled	Date Received
24B0662-01	SP 2_Grab	Upper Brays Effluent	Water	02/15/2024 07:10	02/15/2024 08:54



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:27

Sample Results

Sample: SP 2_Grab Upper Brays Effluent
24B0662-01 (Water)

Date Collected: 2/15/2024 7:10
Date Received: 2/15/2024 8:54

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Wet Chemistry									
Chlorine, total residual	ND		0.100	0.100	mg/L	02/15/2024 07:10	02/15/2024 07:10	AXH	SM 4500-Cl D
Microbiology									
E.coli	4		1		1 MPN/10 0mL	02/15/2024 11:55	02/16/2024 12:00	CML	Colilert
Field									
Temperature, Celsius	22.6		0.00	0.100	°C	02/15/2024 07:10	02/15/2024 07:10	AXH	EPA 170.1
Oxygen, dissolved	7.80		1.00	1.00	mg/L	02/15/2024 07:10	02/15/2024 07:10	AXH	SM 4500-O G
pH	6.80		0.0100	2.00	SU	02/15/2024 07:10	02/15/2024 07:10	AXH	SM 4500-H+ B



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:27

Quality Control

Microbiology

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B238 - Colilert										
Blank (B24B238-BLK1)										
E.coli	ND				Prepared: 02/15/24 11:55	Analyzed: 02/16/24 12:00				1 MPN/100mL
Duplicate (B24B238-DUP1)										
E.coli	ND				Prepared: 02/15/24 11:55	Analyzed: 02/16/24 12:00				50
Duplicate (B24B238-DUP2)										
E.coli	ND				Prepared: 02/15/24 11:55	Analyzed: 02/16/24 12:00				50



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:27

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
DL	Detection Limit
RL	Reporting Limit



Company Name:	Upper Brays Pollutant Monitoring
Address:	13525 W Houston Center Blvd Houston, TX 77082
Permit Number:	10495-116

Sampler:	A. Hernandez
IWS Sample Reason	
<input type="checkbox"/> Permit Requirement	<input type="checkbox"/> Compliance Verification
<input type="checkbox"/> Special Report	<input checked="" type="checkbox"/> POTW Permit Application
<input type="checkbox"/> Other	
UB Full Scan + Permit	

24B0662



Composite Info			
Sample ID:			
Split Samples:	Yes No	Yes No	
Number of bottles:	1 2 3 4 5	1 2 3 4 5	
Sample Volume:	mL min	mL min	
Sample Interval:	Yes No N/A	Yes No N/A	
Autosampler secured/locked:			
Comp Temp(°C)			

Field Test Traceability Info	
TRC ID:	AH TL3A889 181061463
Temperature ID:	TL3A889
pH Measured By:	Paper Meter
pH ID:	TL311770222
Eff Sampler temp(°C)	
Inf Sampler temp(°C)	

Sample comments key:
ND - No Discharge
IQ - Insufficient Quantity
CC - Company Closed
EF - Equipment Failure
Other (write in description)

*Matrix: W - Water, S - Solid, C - Chemical

Sample Identification	# Cont	Grab/Comp	Matrix*	Location	Begin Sampled Date/Time	(End) Sampled Date/Time	Container with Preservation	Test Method	Field Test	Comments
24B0662-01	1	G	W	SP 2_Grab	7:10 2/15/24		(1) IDEXX Sterile Plastic, 0.008% Na2S2O3 Cool <10°C, 0.008% Na2S2O3 (1) N/A None	Total Coliform and E.coli by Colliert Temperature 2550 B pH 4500-H+ B Dissolved Oxygen 4500-O G Chlorine 4500 G	DO (mg/L) 7.8 pH 6.8 Temp (°C) 22.4 TRC (mg/L) 0.01	DO sln 081202K4503

Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location
	2/15/24 - 854		A. Hernandez	2/15/24 - 854	COH
Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location



April 02, 2024

Report # 110151

Revision # 0

ANALYTICAL REPORT

City of Houston Wastewater Operations Laboratory
10500 Bellaire Blvd
Houston, TX 77072

Regulatory Compliance

Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project Site: Upper Brays Pollutants

Enclosed are the results of analyses for samples received by the laboratory on 2/16/2024.
If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brandon Grimm
Division Manager



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

PDFFileStart [TOCPAGEMARKER] PDFFileEnd



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Samples in this Report

Lab ID	Sample	Alias	Matrix	Date Sampled	Date Received
24B0663-01	SP 2_CompMan	Upper Brays Effluent	Water	02/15/2024 23:28	02/16/2024 11:11
24B0663-02	SP 2_Comp		Water	02/16/2024 08:00	02/16/2024 11:11
24B0663-02	SP 2_Comp	Upper Brays Effluent	Water	02/16/2024 08:00	02/16/2024 11:11
24B0663-03	Field Blank		Water	02/15/2024 11:58	02/16/2024 11:11
24B0663-03	Field Blank	Field Blank UB	Water	02/15/2024 11:58	02/16/2024 11:11



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Sample Results

Sample: SP 2_CompMan Upper Brays Effluent
24B0663-01 (Water)

Date Collected: 2/15/2024 23:28
Date Received: 2/16/2024 11:11

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Mercury	3.41		0.0928	0.500	ng/L	02/19/2024 10:02	02/20/2024 12:53	KEN	EPA 1631E
Volatile Organics									
1,1,1-Trichloroethane	ND		1.03	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,1,2,2-Tetrachloroethane	ND		0.502	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,1,2-Trichloroethane	ND		0.471	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,1-Dichloroethane	ND		0.919	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,1-Dichloroethene	ND		0.745	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,2-Dibromoethane	ND		0.621	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,2-Dichlorobenzene	ND		1.23	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,2-Dichloroethane	ND		0.803	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,2-Dichloropropane	ND		0.513	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,3-Dichlorobenzene	ND		1.28	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,4-Dichlorobenzene	ND		1.21	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
2-Butanone	ND		2.56	10.0	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
2-Chloroethyl vinyl ether	ND		0.704	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Acrolein	ND		1.29	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Acrylonitrile	ND		1.96	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Benzene	ND		0.591	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Bromodichloromethane	16.2		0.336	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Bromoform	ND		0.416	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Bromomethane	ND		1.09	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Carbon Disulfide	ND		1.16	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Carbon Tetrachloride	ND		0.785	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Chlorobenzene	ND		0.782	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Chloroethane	ND		0.583	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Chloroform	41.2		0.727	4.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
chloromethane	ND		1.38	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
cis-1,2-Dichloroethene	ND		0.562	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
cis-1,3-Dichloropropene	ND		0.728	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Dibromochloromethane	5.14		0.504	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Epichlorohydrin	ND		4.78	25.0	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Ethylbenzene	ND		0.807	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
m+p-Xylene	ND		1.68	10.0	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Methylene Chloride	ND		2.14	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Methyl-tert-butyl ether (MTBE)	ND		0.428	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
o-Xylene	ND		1.00	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Styrene	ND		0.793	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Tetrachloroethene	ND		0.920	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Toluene	ND		0.737	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Sample Results (Continued)

Sample: SP 2_CompMan (Continued)Upper Brays Effluen
24B0663-01 (Water)

Date Collected: 2/15/2024 23:28
Date Received: 2/16/2024 11:11

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Volatile Organics (Continued)									
trans-1,2-Dichloroethene	ND		1.26	4.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
trans-1,3-Dichloropropene	ND		1.16	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Trichloroethene	ND		0.432	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Vinyl acetate	ND		0.712	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Vinyl chloride	ND		1.15	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Xylenes, Total	ND		1.00	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Total Trihalomethanes	62.5		1.11	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
1,3-Dichloropropene, Total	ND		0.738	5.00	ug/L	02/19/2024 08:14	02/19/2024 13:13	SRB	EPA 624.1
Wet Chemistry									
Cyanide, Amenable	2.24		0.946	2.00	ug/L	02/22/2024 10:08	02/22/2024 13:07	SBL	OIA 1677
Cyanide, Total	4.17 J		3.14	10.0	ug/L	02/22/2024 10:08	02/22/2024 13:07	SBL	ASTM D7511



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Sample Results (Continued)

Sample: SP 2_Comp Upper Brays Effluent
24B0663-02 (Water)

Date Collected: 2/16/2024 8:00
Date Received: 2/16/2024 11:11

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Chromium Trivalent	0.643 J		0.346	2.00	ug/L	03/01/2024 07:45	03/01/2024 12:10	KEN	[CALC]
Semivolatile Organics									
Chlorpyrifos (2)	ND		0.00909	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
Demeton-o (2)	ND		0.0192	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
Demeton-s (2)	ND		0.0162	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
Diazinon (2)	ND		0.0131	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
ethyl-Parathion (2)	ND		0.0121	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
Malathion (2)	ND		0.0121	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
methyl Azinphos (Guthion) (2)	ND		0.0152	0.253	ug/L	02/21/2024 08:18	02/22/2024 15:50	RD	EPA 1657
4,4'-DDD	ND		0.00386	0.0253	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
4,4'-DDE	ND		0.00155	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
4,4'-DDT	ND		0.00514	0.0253	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Aldrin	ND		0.00155	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Alpha-BHC	ND		0.00120	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Beta-BHC	ND		0.00240	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Delta-BHC	ND		0.00170	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Dicofol	ND		0.0118	0.0505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Dieldrin	ND		0.00183	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Endosulfan I	ND		0.00120	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Endosulfan II	ND		0.00339	0.0253	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Endosulfan Sulfate	ND		0.00427	0.0253	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Endrin	ND		0.0132	0.0253	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Endrin-Aldehyde	ND		0.00219	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Gamma-BHC	ND		0.00120	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Heptachlor	ND		0.00219	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Heptachlor epoxide	ND		0.00155	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Methoxychlor	ND		0.00249	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Mirex	ND		0.00155	0.00505	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1016	ND		0.0770	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1221	ND		0.0120	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1232	ND		0.121	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1242	ND		0.117	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1248	ND		0.0943	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1254	ND		0.0739	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
PCB-1260	ND		0.164	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Toxaphene	ND		0.102	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
Polychlorinated biphenyls, Total	ND		0.0739	0.202	ug/L	02/20/2024 08:33	02/23/2024 11:19	SRB	EPA 608.3
1,2,4,5-Tetrachlorobenzene	ND		0.949	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
1,2,4-Trichlorobenzene	ND		0.503	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Sample Results (Continued)

Sample: SP 2_Comp (Continued) Upper Brays Effluent
24B0663-02 (Water)

Date Collected: 2/16/2024 8:00
Date Received: 2/16/2024 11:11

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Semivolatile Organics (Continued)									
2,4,5-Trichlorophenol	ND		1.64	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2,4,6-Trichlorophenol	ND		1.16	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2,4-Dichlorophenol	ND		1.03	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2,4-Dimethylphenol	ND		0.710	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2,4-Dinitrophenol	ND		3.12	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2,4-Dinitrotoluene	ND		1.36	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2,6-Dinitrotoluene	ND		1.35	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2-Chloronaphthalene	ND		0.964	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2-Chlorophenol	ND		1.05	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2-Methylphenol	ND		1.08	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
2-Nitrophenol	ND		0.710	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
3,3'-Dichlorobenzidine	ND		1.48	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
4,6-Dinitro-2-methylphenol	ND		2.28	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
4-Bromophenyl phenyl ether	ND		0.819	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
4-Chloro-3-methylphenol	ND		1.19	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
4-Chlorophenyl phenyl Ether	ND		1.19	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
4-Methylphenol	ND		1.39	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
4-Nitrophenol	ND		0.973	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Acenaphthene	ND		1.06	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Acenaphthylene	ND		0.875	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Aniline	ND		1.23	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Anthracene	ND		0.860	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Azobenzene	ND		0.982	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Benzidine	ND		1.61	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Benzo(a)pyrene	ND		1.54	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Benzo(b)fluoranthene	ND		1.44	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Benzo(k)Fluoranthene	ND		1.02	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Benzo(g,h,i)perylene	ND		1.13	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Benzo[a]anthracene	ND		1.13	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Bis(2-chloroethoxy) methane	ND		0.835	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Bis(2-chloroethyl) ether	ND		1.09	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Bis(2-chloroisopropyl) ether	ND		0.970	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Bis(2-ethylhexyl) phthalate	ND		2.67	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Butyl benzyl phthalate	ND		1.29	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Carbazole	ND		1.56	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Chrysene	ND		1.30	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Dibenzo(a,h)anthracene	ND		1.32	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Diethyl phthalate	ND		1.28	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Dimethyl phthalate	ND		0.916	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Di-n-butyl phthalate	ND		1.34	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Sample Results (Continued)

**Sample: SP 2_Comp (Continued)Upper Brays Effluent
24B0663-02 (Water)**

**Date Collected: 2/16/2024 8:00
Date Received: 2/16/2024 11:11**

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
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Semivolatile Organics (Continued)

Di-n-octyl phthalate	ND		2.08	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Fluoranthene	ND		1.28	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Fluorene	ND		1.03	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Hexachlorobenzene	ND		0.952	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Hexachlorobutadiene	ND		0.523	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Hexachlorocyclopentadiene	ND		0.744	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Hexachloroethane	ND		0.750	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Indeno(1,2,3-cd)pyrene	ND		1.72	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Isophorone	ND		0.487	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Naphthalene	ND		0.643	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
n-Decane	ND		0.523	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Nitrobenzene	ND		0.763	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
N-Nitosodi-n-butylamine	ND		0.967	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
N-Nitrosodiethylamine	ND		1.06	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
N-Nitrosodimethylamine	ND		0.762	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
N-Nitrosodi-n-propylamine	ND		1.50	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
N-Nitrosodiphenylamine	ND		0.856	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
n-Octadecane	ND		0.891	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Pentachlorobenzene	ND		0.646	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Pentachlorophenol	ND		1.75	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Phenanthrene	ND		0.933	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Phenol	ND		1.07	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Pyrene	ND		1.07	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
Pyridine	ND		0.982	5.03	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1
3-Methylphenol	ND		5.61	10.1	ug/L	02/19/2024 07:48	02/22/2024 13:01	SRB	EPA 625.1

Wet Chemistry

Chromium Hexavalent	ND		0.244	1.00	ug/L	03/01/2024 07:45	03/01/2024 12:10	VP	EPA 218.6
Total Alkalinity as CaCO3	61.1		20.0	20.0	mg/L	02/20/2024 09:36	02/20/2024 09:36	VP	SM 2320 B
Total Dissolved Solids	578		5.0	5.0	mg/L	02/16/2024 13:25	02/20/2024 14:00	VP	SM 2540 C
Total Suspended Solids	8.1		2.0	2.0	mg/L	02/16/2024 11:30	02/19/2024 09:40	RNH	SM 2540 D
Ammonia as N	ND		0.0204	0.0500	mg/L	02/20/2024 17:27	02/20/2024 17:27	ZS	EPA 350.1
Total Kjeldahl Nitrogen	1.58		0.209	0.500	mg/L	02/20/2024 10:00	02/23/2024 07:10	VP	SM 4500-NH3 D
Biochemical Oxygen Demand, Carbonaceous	2.30	BOD t	0.200	2.30	mg/L	02/16/2024 11:45	02/21/2024 09:56	MNB	SM 5210 B



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Sample Results (Continued)

**Sample: SP 2_Comp Upper Brays Effluent
24B0663-02 (Water)**

**Date Collected: 2/16/2024 8:00
Date Received: 2/16/2024 11:11**

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Phosphorous, Total (Reshot)	23900		158	1250	ug/L	02/26/2024 07:59	02/27/2024 11:12	KEN	EPA 200.7
Silver (Reshot)	ND		0.0423	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Aluminum (Reshot)	54.4	B 10x, MS3	0.260	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Arsenic (Reshot)	1.90		0.352	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Barium (Reshot)	79.0	B 10x	0.0324	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Beryllium (Reshot)	ND		0.0354	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Cadmium (Reshot)	0.0432	J	0.0238	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Chromium (Reshot)	0.643	J	0.346	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Copper (Reshot)	9.46	B 10x	0.0520	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Nickel (Reshot)	2.76		0.0653	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Lead (Reshot)	0.385	J, B 10x	0.0253	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Antimony (Reshot)	ND		0.617	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Selenium (Reshot)	0.829	J	0.339	2.50	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Thallium (Reshot)	ND		0.0660	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Vanadium (Reshot)	1.48	J	0.153	5.00	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8
Zinc (Reshot)	55.2	B 10x	0.220	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:43	KEN	EPA 200.8



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Sample Results (Continued)

**Sample: Field Blank Field Blank UB
24B0663-03 (Water)**

**Date Collected: 2/15/2024 11:58
Date Received: 2/16/2024 11:11**

										Analyst	
Analyte	Result	Qual	DL	RL	Units	Date Prepared		Date Analyzed		Initials	Method
Total Metals											
Mercury	0.114 J		0.0928	0.500	ng/L	02/19/2024	10:02	02/20/2024	13:23	KEN	EPA 1631E



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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Sample Results (Continued)

**Sample: Field Blank Field Blank UB
24B0663-03 (Water)**

**Date Collected: 2/15/2024 11:58
Date Received: 2/16/2024 11:11**

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Silver (Reshot)	ND		0.0423	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Aluminum (Reshot)	0.618	J, B FLD	0.260	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Arsenic (Reshot)	ND		0.352	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Barium (Reshot)	0.0398	J, B FLD	0.0324	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Beryllium (Reshot)	ND		0.0354	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Cadmium (Reshot)	ND		0.0238	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Chromium (Reshot)	ND		0.346	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Copper (Reshot)	0.0706	J, B FLD	0.0520	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Nickel (Reshot)	ND		0.0653	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Lead (Reshot)	0.0316	J, B FLD	0.0253	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Antimony (Reshot)	ND		0.617	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Selenium (Reshot)	ND		0.339	2.50	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Thallium (Reshot)	ND		0.0660	0.500	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Vanadium (Reshot)	ND		0.153	5.00	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8
Zinc (Reshot)	0.455	B FLD, J	0.220	2.00	ug/L	02/29/2024 08:31	02/29/2024 11:39	KEN	EPA 200.8



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Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control

Total Metals

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B279 - EPA 1631E										
Blank (B24B279-BLK1)										
Mercury	ND		0.500	ng/L						
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 12:13					
Blank (B24B279-BLK2)										
Mercury	ND		0.500	ng/L						
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 13:13					
Blank (B24B279-BLK3)										
Mercury	ND		0.500	ng/L						
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 14:22					
Blank (B24B279-BLK4)										
Mercury	0.120 J		0.500	ng/L						
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 13:52					
Blank (B24B279-BLK5)										
Mercury	ND		0.500	ng/L						
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 14:02					
Blank (B24B279-BLK6)										
Mercury	ND		0.500	ng/L						
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 14:12					
LCS (B24B279-BS1)										
Mercury	5.09		0.500	ng/L	5.00		102	77-123		
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 11:53					
LCS (B24B279-BS2)										
Mercury	5.08		0.500	ng/L	5.00		102	77-123		
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 13:03					
LCS (B24B279-BS3)										
Mercury	4.89		0.500	ng/L	5.00		97.8	77-123		
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 14:32					
Matrix Spike (B24B279-MS1)										
Mercury	7.66		0.500	ng/L	5.00	2.82	96.9	71-125		
					Prepared: 02/19/24 10:02 Analyzed: 02/20/24 12:33					



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Reported: 04/04/2024 10:25

Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B279 - EPA 1631E (Continued)										
Matrix Spike Dup (B24B279-MSD1) Source: 24B0664-03					Prepared: 02/19/24 10:02		Analyzed: 02/20/24 12:43			
Mercury	7.32		0.500	ng/L	5.00	2.82	90.0	71-125	4.61	24
Batch: B24B381 - EPA 200.7										
Blank (B24B381-BLK1)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 10:47			
Phosphorous, Total	ND		250	ug/L						
LCS (B24B381-BS1)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 10:37			
Phosphorous, Total	1980		250	ug/L	2000		98.9	85-115		
LCS (B24B381-BS2)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 10:40			
Phosphorous, Total	1890		250	ug/L	2000		94.7	85-115		
LCS (B24B381-BS3)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 10:42			
Phosphorous, Total	2000		250	ug/L	2000		99.9	85-115		
LCS (B24B381-BS4)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 10:45			
Phosphorous, Total	1960		250	ug/L	2000		98.1	85-115		
Duplicate (B24B381-DUP2)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 11:15			
Phosphorous, Total	23500		1250	ug/L		23900			1.73	20
Matrix Spike (B24B381-MS2)					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 11:18			
Phosphorous, Total	25800		1250	ug/L	2000	23900	96.8	70-130		
Matrix Spike Dup (B24B381-MSD2) Source: 24B0663-02R					Prepared: 02/26/24 07:59		Analyzed: 02/27/24 11:21			
Phosphorous, Total	25700		1250	ug/L	2000	23900	92.9	70-130	0.305	20



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Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B425 - EPA 200.8

Blank (B24B425-BLK1)

Prepared: 02/28/24 08:05 Analyzed: 02/28/24 11:40

Aluminum	ND		2.00	ug/L						
Chromium	ND		2.00	ug/L						
Antimony	ND		2.00	ug/L						
Arsenic	ND		0.500	ug/L						
Barium	ND		0.500	ug/L						
Beryllium	ND		0.500	ug/L						
Cadmium	ND		0.500	ug/L						
Copper	ND		0.500	ug/L						
Lead	ND		0.500	ug/L						
Nickel	ND		0.500	ug/L						
Selenium	ND		2.50	ug/L						
Silver	ND		0.500	ug/L						
Thallium	ND		0.500	ug/L						
Vanadium	ND		5.00	ug/L						
Zinc	ND		2.00	ug/L						

LCS (B24B425-BS1)

Prepared: 02/28/24 08:05 Analyzed: 02/28/24 12:09

Aluminum	20.4		2.00	ug/L	20.0		102	85-115		
Chromium	20.9		2.00	ug/L	20.0		104	85-115		
Antimony	20.4		2.00	ug/L	20.0		102	85-115		
Arsenic	20.2		0.500	ug/L	20.0		101	85-115		
Barium	20.6		0.500	ug/L	20.0		103	85-115		
Beryllium	20.2		0.500	ug/L	20.0		101	85-115		
Cadmium	20.4		0.500	ug/L	20.0		102	85-115		
Copper	20.9		0.500	ug/L	20.0		105	85-115		
Lead	19.7		0.500	ug/L	20.0		98.7	85-115		
Nickel	20.9		0.500	ug/L	20.0		105	85-115		
Selenium	103		2.50	ug/L	100		103	85-115		
Silver	20.0		0.500	ug/L	20.0		100	85-115		
Thallium	18.4		0.500	ug/L	20.0		91.8	85-115		
Vanadium	21.3		5.00	ug/L	20.0		107	85-115		
Zinc	20.4		2.00	ug/L	20.0		102	85-115		



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Reported: 04/04/2024 10:25

Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B425 - EPA 200.8 (Continued)

Duplicate (B24B425-DUP1)

Source: 24B0664-04

Prepared: 02/28/24 08:05 Analyzed: 02/28/24 11:56

Aluminum	73.7		2.00	ug/L		91.4			21.5	20
Chromium	0.965	J	2.00	ug/L		1.08			11.3	20
Antimony	0.648	J	2.00	ug/L		0.715			9.82	20
Arsenic	1.93		0.500	ug/L		2.16			11.2	20
Barium	80.1		0.500	ug/L		87.5			8.91	20
Beryllium	ND		0.500	ug/L		ND				20
Cadmium	ND		0.500	ug/L		0.0265				20
Copper	7.46		0.500	ug/L		8.17			9.06	20
Lead	0.561		0.500	ug/L		0.613			8.83	20
Nickel	2.89		0.500	ug/L		3.28			12.6	20
Selenium	0.768	J	2.50	ug/L		0.857			10.9	20
Silver	ND		0.500	ug/L		ND				20
Thallium	ND		0.500	ug/L		ND				20
Vanadium	1.99	J	5.00	ug/L		2.19			9.69	20
Zinc	45.5		2.00	ug/L		49.9			9.36	20

Duplicate (B24B425-DUP2)

Source: 24B0664-04R

Prepared: 02/28/24 08:05 Analyzed: 02/28/24 12:34

Aluminum	77.5		2.00	ug/L		84.0			8.09	20
Chromium	0.966	J	2.00	ug/L		1.12			14.6	20
Antimony	0.630	J	2.00	ug/L		0.739			15.9	20
Arsenic	1.86		0.500	ug/L		2.19			16.0	20
Barium	81.3		0.500	ug/L		89.4			9.50	20
Beryllium	ND		0.500	ug/L		ND				20
Cadmium	ND		0.500	ug/L		0.0244				20
Copper	7.54		0.500	ug/L		8.28			9.40	20
Lead	0.589		0.500	ug/L		0.624			5.70	20
Nickel	2.96		0.500	ug/L		3.38			13.2	20
Selenium	0.715	J	2.50	ug/L		0.875			20.1	20
Silver	ND		0.500	ug/L		ND				20
Thallium	ND		0.500	ug/L		ND				20
Vanadium	1.92	J	5.00	ug/L		2.14			10.9	20
Zinc	45.9		2.00	ug/L		50.5			9.51	20



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Project: UB Full Scan + Permit
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Reported: 04/04/2024 10:25

Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B425 - EPA 200.8 (Continued)

Matrix Spike (B24B425-MS1) **Source: 24B0664-04** Prepared: 02/28/24 08:05 Analyzed: 02/28/24 12:00

Aluminum	99.3		2.00	ug/L	20.0	91.4	39.5	70-130		
Chromium	21.4		2.00	ug/L	20.0	1.08	102	70-130		
Antimony	20.0		2.00	ug/L	20.0	0.715	96.6	70-130		
Arsenic	21.5		0.500	ug/L	20.0	2.16	96.5	70-130		
Barium	99.6		0.500	ug/L	20.0	87.5	60.3	70-130		
Beryllium	20.2		0.500	ug/L	20.0	ND	101	70-130		
Cadmium	19.4		0.500	ug/L	20.0	0.0265	96.7	70-130		
Copper	26.6		0.500	ug/L	20.0	8.17	92.2	70-130		
Lead	20.7		0.500	ug/L	20.0	0.613	100	70-130		
Nickel	22.1		0.500	ug/L	20.0	3.28	94.2	70-130		
Selenium	98.1		2.50	ug/L	100	0.857	97.2	70-130		
Silver	18.2		0.500	ug/L	20.0	ND	91.2	70-130		
Thallium	20.1		0.500	ug/L	20.0	ND	101	70-130		
Vanadium	23.9		5.00	ug/L	20.0	2.19	109	70-130		
Zinc	64.5		2.00	ug/L	20.0	49.9	72.7	70-130		

Matrix Spike (B24B425-MS2) **Source: 24B0664-04R** Prepared: 02/28/24 08:05 Analyzed: 02/28/24 12:38

Aluminum	98.6		2.00	ug/L	20.0	84.0	73.0	70-130		
Chromium	21.2		2.00	ug/L	20.0	1.12	100	70-130		
Antimony	20.0		2.00	ug/L	20.0	0.739	96.2	70-130		
Arsenic	21.2		0.500	ug/L	20.0	2.19	95.0	70-130		
Barium	98.9		0.500	ug/L	20.0	89.4	47.7	70-130		
Beryllium	20.5		0.500	ug/L	20.0	ND	102	70-130		
Cadmium	19.2		0.500	ug/L	20.0	0.0244	95.7	70-130		
Copper	26.4		0.500	ug/L	20.0	8.28	90.5	70-130		
Lead	20.4		0.500	ug/L	20.0	0.624	98.9	70-130		
Nickel	22.0		0.500	ug/L	20.0	3.38	93.1	70-130		
Selenium	97.9		2.50	ug/L	100	0.875	97.1	70-130		
Silver	18.1		0.500	ug/L	20.0	ND	90.6	70-130		
Thallium	19.5		0.500	ug/L	20.0	ND	97.5	70-130		
Vanadium	24.0		5.00	ug/L	20.0	2.14	109	70-130		
Zinc	63.6		2.00	ug/L	20.0	50.5	65.3	70-130		



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B425 - EPA 200.8 (Continued)

Matrix Spike Dup (B24B425-MSD1) Source: 24B0664-04

Prepared: 02/28/24 08:05 Analyzed: 02/28/24 12:05

Aluminum	100		2.00	ug/L	20.0	91.4	45.1	70-130	1.11	20
Chromium	21.4		2.00	ug/L	20.0	1.08	102	70-130	0.0855	20
Antimony	20.1		2.00	ug/L	20.0	0.715	97.0	70-130	0.410	20
Arsenic	21.8		0.500	ug/L	20.0	2.16	98.1	70-130	1.41	20
Barium	98.9		0.500	ug/L	20.0	87.5	56.7	70-130	0.736	20
Beryllium	20.1		0.500	ug/L	20.0	ND	100	70-130	0.490	20
Cadmium	19.2		0.500	ug/L	20.0	0.0265	96.0	70-130	0.731	20
Copper	26.9		0.500	ug/L	20.0	8.17	93.6	70-130	1.08	20
Lead	20.6		0.500	ug/L	20.0	0.613	99.8	70-130	0.478	20
Nickel	22.3		0.500	ug/L	20.0	3.28	95.2	70-130	0.934	20
Selenium	99.2		2.50	ug/L	100	0.857	98.3	70-130	1.11	20
Silver	18.4		0.500	ug/L	20.0	ND	92.1	70-130	1.03	20
Thallium	19.7		0.500	ug/L	20.0	ND	98.6	70-130	2.12	20
Vanadium	23.9		5.00	ug/L	20.0	2.19	108	70-130	0.175	20
Zinc	64.9		2.00	ug/L	20.0	49.9	74.7	70-130	0.620	20

Matrix Spike Dup (B24B425-MSD2) Source: 24B0664-04R

Prepared: 02/28/24 08:05 Analyzed: 02/28/24 12:42

Aluminum	99.3		2.00	ug/L	20.0	84.0	76.5	70-130	0.691	20
Chromium	21.4		2.00	ug/L	20.0	1.12	102	70-130	1.09	20
Antimony	20.5		2.00	ug/L	20.0	0.739	99.0	70-130	2.82	20
Arsenic	21.1		0.500	ug/L	20.0	2.19	94.5	70-130	0.464	20
Barium	102		0.500	ug/L	20.0	89.4	64.0	70-130	3.24	20
Beryllium	20.9		0.500	ug/L	20.0	ND	105	70-130	2.04	20
Cadmium	19.4		0.500	ug/L	20.0	0.0244	96.8	70-130	1.13	20
Copper	26.5		0.500	ug/L	20.0	8.28	91.2	70-130	0.581	20
Lead	20.2		0.500	ug/L	20.0	0.624	97.9	70-130	0.953	20
Nickel	21.9		0.500	ug/L	20.0	3.38	92.7	70-130	0.330	20
Selenium	97.4		2.50	ug/L	100	0.875	96.5	70-130	0.548	20
Silver	18.0		0.500	ug/L	20.0	ND	90.2	70-130	0.476	20
Thallium	19.6		0.500	ug/L	20.0	ND	97.9	70-130	0.401	20
Vanadium	24.4		5.00	ug/L	20.0	2.14	111	70-130	1.30	20
Zinc	64.0		2.00	ug/L	20.0	50.5	67.4	70-130	0.636	20



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

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Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B445 - EPA 200.8

Blank (B24B445-BLK1)

Prepared: 02/29/24 08:31 Analyzed: 02/29/24 11:30

Aluminum	ND		2.00	ug/L						
Chromium	ND		2.00	ug/L						
Antimony	ND		2.00	ug/L						
Arsenic	ND		0.500	ug/L						
Barium	ND		0.500	ug/L						
Beryllium	ND		0.500	ug/L						
Cadmium	ND		0.500	ug/L						
Copper	ND		0.500	ug/L						
Lead	ND		0.500	ug/L						
Nickel	ND		0.500	ug/L						
Selenium	ND		2.50	ug/L						
Silver	ND		0.500	ug/L						
Thallium	ND		0.500	ug/L						
Vanadium	ND		5.00	ug/L						
Zinc	ND		2.00	ug/L						

LCS (B24B445-BS1)

Prepared: 02/29/24 08:31 Analyzed: 02/29/24 12:08

Aluminum	20.3		2.00	ug/L	20.0		101	85-115		
Chromium	20.3		2.00	ug/L	20.0		101	85-115		
Antimony	20.0		2.00	ug/L	20.0		100	85-115		
Arsenic	19.4		0.500	ug/L	20.0		96.9	85-115		
Barium	19.6		0.500	ug/L	20.0		97.9	85-115		
Beryllium	20.6		0.500	ug/L	20.0		103	85-115		
Cadmium	19.6		0.500	ug/L	20.0		98.2	85-115		
Copper	20.0		0.500	ug/L	20.0		100	85-115		
Lead	20.2		0.500	ug/L	20.0		101	85-115		
Nickel	19.4		0.500	ug/L	20.0		97.1	85-115		
Selenium	99.4		2.50	ug/L	100		99.4	85-115		
Silver	19.8		0.500	ug/L	20.0		99.2	85-115		
Thallium	18.9		0.500	ug/L	20.0		94.5	85-115		
Vanadium	21.0		5.00	ug/L	20.0		105	85-115		
Zinc	19.9		2.00	ug/L	20.0		99.3	85-115		



Upper Brays
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Project: UB Full Scan + Permit
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Project Manager: Regulatory Compliance

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Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B445 - EPA 200.8 (Continued)

Duplicate (B24B445-DUP1)

Source: 24B0663-02R Prepared: 02/29/24 08:31 Analyzed: 02/29/24 11:47

Aluminum	58.2		2.00	ug/L		54.4			6.85	20
Antimony	ND		2.00	ug/L		ND				20
Chromium	0.643 J		2.00	ug/L		0.643			0.0860	20
Arsenic	1.78		0.500	ug/L		1.90			6.89	20
Barium	80.6		0.500	ug/L		79.0			1.99	20
Beryllium	ND		0.500	ug/L		ND				20
Cadmium	0.0402 J		0.500	ug/L		0.0432			7.10	20
Copper	9.41		0.500	ug/L		9.46			0.472	20
Lead	0.389 J		0.500	ug/L		0.385			0.817	20
Nickel	2.88		0.500	ug/L		2.76			4.40	20
Selenium	0.797 J		2.50	ug/L		0.829			3.98	20
Silver	ND		0.500	ug/L		ND				20
Thallium	ND		0.500	ug/L		ND				20
Vanadium	1.38 J		5.00	ug/L		1.48			6.94	20
Zinc	57.2		2.00	ug/L		55.2			3.47	20

Duplicate (B24B445-DUP2)

Source: 24B0250-02 Prepared: 02/29/24 08:31 Analyzed: 02/29/24 12:41

Aluminum	31.4		2.00	ug/L		32.3			2.74	20
Antimony	ND		2.00	ug/L		ND				20
Chromium	0.567 J		2.00	ug/L		0.533			6.21	20
Arsenic	0.943		0.500	ug/L		0.946			0.272	20
Barium	157		0.500	ug/L		160			1.64	20
Beryllium	ND		0.500	ug/L		ND				20
Cadmium	ND		0.500	ug/L		ND				20
Copper	5.53		0.500	ug/L		5.51			0.468	20
Lead	0.131 J		0.500	ug/L		0.129			0.887	20
Nickel	2.72		0.500	ug/L		2.71			0.465	20
Selenium	0.673 J		2.50	ug/L		0.723			7.08	20
Silver	ND		0.500	ug/L		ND				20
Thallium	ND		0.500	ug/L		ND				20
Vanadium	1.03 J		5.00	ug/L		1.02			1.04	20
Zinc	29.7		2.00	ug/L		29.3			1.44	20



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B445 - EPA 200.8 (Continued)

Matrix Spike (B24B445-MS1) **Source: 24B0663-02R** Prepared: 02/29/24 08:31 Analyzed: 02/29/24 11:51

Aluminum	81.3	MS3	2.00	ug/L	20.0	54.4	135	70-130		
Chromium	21.0		2.00	ug/L	20.0	0.643	102	70-130		
Antimony	20.5		2.00	ug/L	20.0	ND	102	70-130		
Arsenic	22.0		0.500	ug/L	20.0	1.90	100	70-130		
Barium	103		0.500	ug/L	20.0	79.0	119	70-130		
Beryllium	19.6		0.500	ug/L	20.0	ND	98.2	70-130		
Cadmium	19.3		0.500	ug/L	20.0	0.0432	96.3	70-130		
Copper	29.3		0.500	ug/L	20.0	9.46	99.3	70-130		
Lead	20.8		0.500	ug/L	20.0	0.385	102	70-130		
Nickel	21.8		0.500	ug/L	20.0	2.76	95.4	70-130		
Selenium	98.4		2.50	ug/L	100	0.829	97.5	70-130		
Silver	19.0		0.500	ug/L	20.0	ND	94.9	70-130		
Thallium	20.1		0.500	ug/L	20.0	ND	101	70-130		
Vanadium	23.2		5.00	ug/L	20.0	1.48	109	70-130		
Zinc	77.4		2.00	ug/L	20.0	55.2	111	70-130		

Matrix Spike (B24B445-MS2) **Source: 24B0250-02** Prepared: 02/29/24 08:31 Analyzed: 02/29/24 12:45

Aluminum	56.2		2.00	ug/L	20.0	32.3	120	70-130		
Antimony	19.9		2.00	ug/L	20.0	ND	99.7	70-130		
Chromium	20.1		2.00	ug/L	20.0	0.533	97.9	70-130		
Arsenic	20.6		0.500	ug/L	20.0	0.946	98.1	70-130		
Barium	173		0.500	ug/L	20.0	160	65.0	70-130		
Beryllium	19.6		0.500	ug/L	20.0	ND	97.9	70-130		
Cadmium	19.1		0.500	ug/L	20.0	ND	95.3	70-130		
Copper	24.5		0.500	ug/L	20.0	5.51	94.9	70-130		
Lead	20.4		0.500	ug/L	20.0	0.129	102	70-130		
Nickel	21.2		0.500	ug/L	20.0	2.71	92.3	70-130		
Selenium	97.1		2.50	ug/L	100	0.723	96.4	70-130		
Silver	18.6		0.500	ug/L	20.0	ND	93.1	70-130		
Thallium	20.0		0.500	ug/L	20.0	ND	99.9	70-130		
Vanadium	21.6		5.00	ug/L	20.0	1.02	103	70-130		
Zinc	47.6		2.00	ug/L	20.0	29.3	91.3	70-130		



Upper Brays
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Project: UB Full Scan + Permit
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Project Manager: Regulatory Compliance

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Quality Control (Continued)

Total Metals (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B445 - EPA 200.8 (Continued)

Matrix Spike Dup (B24B445-MSD1) Source: 24B0663-02R Prepared: 02/29/24 08:31 Analyzed: 02/29/24 11:59

Aluminum	83.9	MS3	2.00	ug/L	20.0	54.4	148	70-130	3.19	20
Antimony	20.2		2.00	ug/L	20.0	ND	101	70-130	1.40	20
Chromium	21.0		2.00	ug/L	20.0	0.643	102	70-130	0.303	20
Arsenic	22.3		0.500	ug/L	20.0	1.90	102	70-130	1.36	20
Barium	103		0.500	ug/L	20.0	79.0	120	70-130	0.370	20
Beryllium	20.0		0.500	ug/L	20.0	ND	100	70-130	2.00	20
Cadmium	19.5		0.500	ug/L	20.0	0.0432	97.0	70-130	0.743	20
Copper	29.2		0.500	ug/L	20.0	9.46	98.7	70-130	0.415	20
Lead	20.5		0.500	ug/L	20.0	0.385	100	70-130	1.64	20
Nickel	22.0		0.500	ug/L	20.0	2.76	96.3	70-130	0.859	20
Selenium	98.7		2.50	ug/L	100	0.829	97.9	70-130	0.370	20
Silver	19.1		0.500	ug/L	20.0	ND	95.7	70-130	0.819	20
Thallium	19.7		0.500	ug/L	20.0	ND	98.5	70-130	2.21	20
Vanadium	23.2		5.00	ug/L	20.0	1.48	109	70-130	0.236	20
Zinc	79.0		2.00	ug/L	20.0	55.2	119	70-130	2.11	20

Matrix Spike Dup (B24B445-MSD2) Source: 24B0250-02 Prepared: 02/29/24 08:31 Analyzed: 02/29/24 12:53

Aluminum	61.9		2.00	ug/L	20.0	32.3	148	70-130	9.59	20
Antimony	19.9		2.00	ug/L	20.0	ND	99.3	70-130	0.345	20
Chromium	20.7		2.00	ug/L	20.0	0.533	101	70-130	2.86	20
Arsenic	20.3		0.500	ug/L	20.0	0.946	96.6	70-130	1.52	20
Barium	177		0.500	ug/L	20.0	160	85.5	70-130	2.35	20
Beryllium	20.3		0.500	ug/L	20.0	ND	101	70-130	3.59	20
Cadmium	19.1		0.500	ug/L	20.0	ND	95.5	70-130	0.149	20
Copper	24.2		0.500	ug/L	20.0	5.51	93.3	70-130	1.27	20
Lead	20.3		0.500	ug/L	20.0	0.129	101	70-130	0.817	20
Nickel	20.8		0.500	ug/L	20.0	2.71	90.4	70-130	1.83	20
Selenium	95.3		2.50	ug/L	100	0.723	94.5	70-130	1.92	20
Silver	18.4		0.500	ug/L	20.0	ND	91.8	70-130	1.47	20
Thallium	19.1		0.500	ug/L	20.0	ND	95.6	70-130	4.40	20
Vanadium	22.0		5.00	ug/L	20.0	1.02	105	70-130	1.67	20
Zinc	47.8		2.00	ug/L	20.0	29.3	92.3	70-130	0.420	20



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

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Quality Control (Continued)

Semivolatile Organics

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B229 - EPA 625.1_SPE

Blank (B24B229-BLK1)

Prepared: 02/19/24 07:48 Analyzed: 02/22/24 11:08

1,2,4,5-Tetrachlorobenzene	ND		5.00	ug/L
1,2,4-Trichlorobenzene	ND		5.00	ug/L
2,4,5-Trichlorophenol	ND		5.00	ug/L
2,4,6-Trichlorophenol	ND		5.00	ug/L
2,4-Dichlorophenol	ND		5.00	ug/L
2,4-Dimethylphenol	ND		5.00	ug/L
2,4-Dinitrophenol	ND		5.00	ug/L
2,4-Dinitrotoluene	ND		5.00	ug/L
2,6-Dinitrotoluene	ND		5.00	ug/L
2-Chloronaphthalene	ND		5.00	ug/L
2-Chlorophenol	ND		5.00	ug/L
2-Methylphenol	ND		5.00	ug/L
2-Nitrophenol	ND		5.00	ug/L
3,3'-Dichlorobenzidine	ND		5.00	ug/L
4,6-Dinitro-2-methylphenol	ND		5.00	ug/L
4-Bromophenyl phenyl ether	ND		5.00	ug/L
4-Chloro-3-methylphenol	ND		5.00	ug/L
4-Chlorophenyl phenyl Ether	ND		5.00	ug/L
4-Methylphenol	ND		5.00	ug/L
4-Nitrophenol	ND		5.00	ug/L
Acenaphthene	ND		5.00	ug/L
Acenaphthylene	ND		5.00	ug/L
Aniline	ND		5.00	ug/L
Anthracene	ND		5.00	ug/L
Azobenzene	ND		5.00	ug/L
Benzidine	ND		5.00	ug/L
Benzo(a)pyrene	ND		5.00	ug/L
Benzo(b)fluoranthene	ND		5.00	ug/L
Benzo(k)Fluoranthene	ND		5.00	ug/L
Benzo(g,h,i)perylene	ND		5.00	ug/L
Benzo[a]anthracene	ND		5.00	ug/L
Bis(2-chloroethoxy) methane	ND		5.00	ug/L
Bis(2-chloroethyl) ether	ND		5.00	ug/L
Bis(2-chloroisopropyl) ether	ND		5.00	ug/L
Bis(2-ethylhexyl) phthalate	ND		5.00	ug/L
Butyl benzyl phthalate	ND		5.00	ug/L
Carbazole	ND		5.00	ug/L
Chrysene	ND		5.00	ug/L
Dibenzo(a,h)anthracene	ND		5.00	ug/L
Diethyl phthalate	ND		5.00	ug/L
Dimethyl phthalate	ND		5.00	ug/L
Di-n-butyl phthalate	ND		5.00	ug/L
Di-n-octyl phthalate	ND		5.00	ug/L
Fluoranthene	ND		5.00	ug/L
Fluorene	ND		5.00	ug/L
Hexachlorobenzene	ND		5.00	ug/L
Hexachlorobutadiene	ND		5.00	ug/L



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B229 - EPA 625.1_SPE (Continued)

Blank (B24B229-BLK1)

Prepared: 02/19/24 07:48 Analyzed: 02/22/24 11:08

Hexachlorocyclopentadiene	ND		5.00	ug/L						
Hexachloroethane	ND		5.00	ug/L						
Indeno(1,2,3-cd)pyrene	ND		5.00	ug/L						
Isophorone	ND		5.00	ug/L						
Naphthalene	ND		5.00	ug/L						
n-Decane	ND		5.00	ug/L						
Nitrobenzene	ND		5.00	ug/L						
N-Nitosodi-n-butylamine	ND		5.00	ug/L						
N-Nitrosodiethylamine	ND		5.00	ug/L						
N-Nitrosodimethylamine	ND		5.00	ug/L						
N-Nitrosodi-n-propylamine	ND		5.00	ug/L						
N-Nitrosodiphenylamine	ND		5.00	ug/L						
n-Octadecane	ND		5.00	ug/L						
Pentachlorobenzene	ND		5.00	ug/L						
Pentachlorophenol	ND		5.00	ug/L						
Phenanthrene	ND		5.00	ug/L						
Phenol	ND		5.00	ug/L						
Pyrene	ND		5.00	ug/L						
Pyridine	ND		5.00	ug/L						
3-Methylphenol	ND		10.0	ug/L						

LCS (B24B229-BS1)

Prepared: 02/19/24 07:48 Analyzed: 02/22/24 11:36

1,2,4-Trichlorobenzene	29.7		5.00	ug/L	40.0		74.2	44-142		
2,4,5-Trichlorophenol	36.5		5.00	ug/L	40.0		91.3	1-140		
2,4,6-Trichlorophenol	37.8		5.00	ug/L	40.0		94.6	37-144		
2,4-Dichlorophenol	34.4		5.00	ug/L	40.0		86.0	39-135		
2,4-Dimethylphenol	23.6		5.00	ug/L	40.0		59.1	32-120		
2,4-Dinitrophenol	46.7		5.00	ug/L	40.0		117	1-191		
2,4-Dinitrotoluene	40.9		5.00	ug/L	40.0		102	39-139		
2,6-Dinitrotoluene	40.5		5.00	ug/L	40.0		101	50-158		
2-Chloronaphthalene	32.3		5.00	ug/L	40.0		80.8	20-120		
2-Chlorophenol	33.8		5.00	ug/L	40.0		84.4	23-134		
2-Methylphenol	33.4		5.00	ug/L	40.0		83.5	1-140		
2-Nitrophenol	36.0		5.00	ug/L	40.0		90.1	29-182		
3,3'-Dichlorobenzidine	58.1		5.00	ug/L	100		58.1	1-262		
4,6-Dinitro-2-methylphenol	49.2		5.00	ug/L	40.0		123	1-181		
4-Bromophenyl phenyl ether	34.0		5.00	ug/L	40.0		84.9	53-127		
4-Chloro-3-methylphenol	36.4		5.00	ug/L	40.0		90.9	22-147		
4-Chlorophenyl phenyl Ether	32.5		5.00	ug/L	40.0		81.3	25-158		
4-Methylphenol	20.5		5.00	ug/L	20.0		102	1-140		
4-Nitrophenol	43.6		5.00	ug/L	40.0		109	1-132		
Acenaphthene	36.1		5.00	ug/L	40.0		90.3	47-145		
Acenaphthylene	30.8		5.00	ug/L	40.0		77.1	33-145		
Aniline	24.3		5.00	ug/L	40.0		60.7	1-140		
Anthracene	37.5		5.00	ug/L	40.0		93.7	27-133		
Azobenzene	38.2		5.00	ug/L	40.0		95.5	1-140		
Benzidine	20.6		5.00	ug/L	100		20.6	1-140		



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B229 - EPA 625.1_SPE (Continued)										
LCS (B24B229-BS1)					Prepared: 02/19/24 07:48 Analyzed: 02/22/24 11:36					
Benzo(a)pyrene	34.7		5.00	ug/L	40.0		86.7	17-163		
Benzo(b)fluoranthene	36.0		5.00	ug/L	40.0		90.0	24-159		
Benzo(k)Fluoranthene	38.6		5.00	ug/L	40.0		96.4	11-162		
Benzo(g,h,i)perylene	30.3		5.00	ug/L	40.0		75.9	1-219		
Benzo[a]anthracene	33.5		5.00	ug/L	40.0		83.8	33-143		
Bis(2-chloroethoxy) methane	37.1		5.00	ug/L	40.0		92.8	33-184		
Bis(2-chloroethyl) ether	37.9		5.00	ug/L	40.0		94.7	12-158		
Bis(2-chloroisopropyl) ether	33.2		5.00	ug/L	40.0		83.1	36-166		
Bis(2-ethylhexyl) phthalate	39.6		5.00	ug/L	40.0		98.9	8-158		
Butyl benzyl phthalate	36.1		5.00	ug/L	40.0		90.2	1-152		
Carbazole	36.9		5.00	ug/L	40.0		92.3	1-140		
Chrysene	39.2		5.00	ug/L	40.0		98.1	17-168		
Dibenzo(a,h)anthracene	32.1		5.00	ug/L	40.0		80.2	1-227		
Diethyl phthalate	37.0		5.00	ug/L	40.0		92.4	1-120		
Dimethyl phthalate	36.7		5.00	ug/L	40.0		91.7	1-120		
Di-n-butyl phthalate	35.9		5.00	ug/L	40.0		89.7	1-120		
Di-n-octyl phthalate	38.0		5.00	ug/L	40.0		94.9	4-146		
Fluoranthene	35.1		5.00	ug/L	40.0		87.7	26-137		
Fluorene	33.6		5.00	ug/L	40.0		84.0	59-121		
Hexachlorobenzene	37.0		5.00	ug/L	40.0		92.4	1-152		
Hexachlorobutadiene	27.6		5.00	ug/L	40.0		68.9	24-120		
Hexachlorocyclopentadiene	13.9		5.00	ug/L	40.0		34.8	1-140		
Hexachloroethane	26.1		5.00	ug/L	40.0		65.2	40-120		
Indeno(1,2,3-cd)pyrene	33.8		5.00	ug/L	40.0		84.6	1-171		
Isophorone	34.4		5.00	ug/L	40.0		86.0	21-196		
Naphthalene	35.1		5.00	ug/L	40.0		87.8	21-133		
n-Decane	9.92		5.00	ug/L	40.0		24.8	1-140		
Nitrobenzene	35.2		5.00	ug/L	40.0		87.9	35-140		
N-Nitosodi-n-butylamine	39.4		5.00	ug/L	40.0		98.5	1-140		
N-Nitrosodiethylamine	31.5		5.00	ug/L	40.0		78.8	1-140		
N-Nitrosodimethylamine	13.8		5.00	ug/L	40.0		34.5	1-140		
N-Nitrosodi-n-propylamine	36.2		5.00	ug/L	40.0		90.6	1-230		
N-Nitrosodiphenylamine	37.0		5.00	ug/L	40.0		92.5	1-140		
n-Octadecane	33.9		5.00	ug/L	40.0		84.6	1-140		
Pentachlorobenzene	32.1		5.00	ug/L	40.0		80.3	1-140		
Pentachlorophenol	50.5		5.00	ug/L	40.0		126	14-176		
Phenanthrene	37.5		5.00	ug/L	40.0		93.8	54-120		
Phenol	20.0		5.00	ug/L	40.0		50.0	5-120		
Pyrene	37.9		5.00	ug/L	40.0		94.7	52-120		
Pyridine	ND	BS Org	5.00	ug/L	40.0			1-140		
3-Methylphenol	20.4		10.0	ug/L	20.0		102	1-140		



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B229 - EPA 625.1_SPE (Continued)

Matrix Spike (B24B229-MS1)

Source: 24B0663-02

Prepared: 02/19/24 07:48

Analyzed: 02/22/24 13:57

1,2,4-Trichlorobenzene	52.0		10.0	ug/L	80.0	ND	65.1	44-142		
2,4,5-Trichlorophenol	72.1		10.0	ug/L	80.0	ND	90.2	1-140		
2,4,6-Trichlorophenol	69.7		10.0	ug/L	80.0	ND	87.1	37-144		
2,4-Dichlorophenol	64.3		10.0	ug/L	80.0	ND	80.4	39-135		
2,4-Dimethylphenol	35.3		10.0	ug/L	80.0	ND	44.1	32-120		
2,4-Dinitrophenol	110		10.0	ug/L	80.0	ND	137	1-191		
2,4-Dinitrotoluene	79.2		10.0	ug/L	80.0	ND	99.0	39-139		
2,6-Dinitrotoluene	77.0		10.0	ug/L	80.0	ND	96.3	50-158		
2-Chloronaphthalene	56.6		10.0	ug/L	80.0	ND	70.8	20-120		
2-Chlorophenol	64.1		10.0	ug/L	80.0	ND	80.1	23-134		
2-Methylphenol	56.1		10.0	ug/L	80.0	ND	70.1	1-140		
2-Nitrophenol	66.2		10.0	ug/L	80.0	ND	82.7	29-182		
3,3'-Dichlorobenzidine	68.3		10.0	ug/L	200	ND	34.1	1-262		
4,6-Dinitro-2-methylphenol	103		10.0	ug/L	80.0	ND	128	1-181		
4-Bromophenyl phenyl ether	62.5		10.0	ug/L	80.0	ND	78.1	53-127		
4-Chloro-3-methylphenol	68.2		10.0	ug/L	80.0	ND	85.2	22-147		
4-Chlorophenyl phenyl Ether	58.5		10.0	ug/L	80.0	ND	73.1	25-158		
4-Methylphenol	35.7		10.0	ug/L	40.0	ND	89.1	1-140		
4-Nitrophenol	94.1		10.0	ug/L	80.0	ND	118	1-132		
Acenaphthene	61.3		10.0	ug/L	80.0	ND	76.6	47-145		
Acenaphthylene	52.2		10.0	ug/L	80.0	ND	65.3	33-145		
Aniline	26.0		10.0	ug/L	80.0	ND	32.6	1-140		
Anthracene	69.8		10.0	ug/L	80.0	ND	87.3	27-133		
Azobenzene	71.8		10.0	ug/L	80.0	ND	89.7	1-140		
Benzidine	ND	MS1	10.0	ug/L	200	ND		1-140		
Benzo(a)pyrene	64.1		10.0	ug/L	80.0	ND	80.1	17-163		
Benzo(b)fluoranthene	69.5		10.0	ug/L	80.0	ND	86.9	24-159		
Benzo(k)Fluoranthene	72.1		10.0	ug/L	80.0	ND	90.2	11-162		
Benzo(g,h,i)perylene	57.5		10.0	ug/L	80.0	ND	71.9	1-219		
Benzo[a]anthracene	64.1		10.0	ug/L	80.0	ND	80.2	33-143		
Bis(2-chloroethoxy) methane	63.1		10.0	ug/L	80.0	ND	78.8	33-184		
Bis(2-chloroethyl) ether	64.1		10.0	ug/L	80.0	ND	80.1	12-158		
Bis(2-chloroisopropyl) ether	60.7		10.0	ug/L	80.0	ND	75.9	36-166		
Bis(2-ethylhexyl) phthalate	71.7		10.0	ug/L	80.0	ND	89.6	8-158		
Butyl benzyl phthalate	67.2		10.0	ug/L	80.0	ND	84.0	1-152		
Carbazole	72.4		10.0	ug/L	80.0	ND	90.5	1-140		
Chrysene	72.2		10.0	ug/L	80.0	ND	90.3	17-168		
Dibenzo(a,h)anthracene	60.2		10.0	ug/L	80.0	ND	75.2	1-227		
Diethyl phthalate	68.9		10.0	ug/L	80.0	ND	86.1	1-120		
Dimethyl phthalate	67.2		10.0	ug/L	80.0	ND	84.0	1-120		
Di-n-butyl phthalate	66.8		10.0	ug/L	80.0	ND	83.5	1-120		
Di-n-octyl phthalate	73.8		10.0	ug/L	80.0	ND	92.3	4-146		
Fluoranthene	67.5		10.0	ug/L	80.0	ND	84.4	26-137		
Fluorene	58.8		10.0	ug/L	80.0	ND	73.5	59-121		
Hexachlorobenzene	68.6		10.0	ug/L	80.0	ND	85.8	1-152		
Hexachlorobutadiene	48.7		10.0	ug/L	80.0	ND	60.9	24-120		
Hexachlorocyclopentadiene	19.1		10.0	ug/L	80.0	ND	23.8	1-140		



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B229 - EPA 625.1_SPE (Continued)

Matrix Spike (B24B229-MS1)

Source: 24B0663-02

Prepared: 02/19/24 07:48

Analyzed: 02/22/24 13:57

Hexachloroethane	51.2		10.0	ug/L	80.0	ND	64.1	40-120		
Indeno(1,2,3-cd)pyrene	66.0		10.0	ug/L	80.0	ND	82.5	1-171		
Isophorone	59.0		10.0	ug/L	80.0	ND	73.7	21-196		
Naphthalene	60.0		10.0	ug/L	80.0	ND	75.0	21-133		
n-Decane	24.5		10.0	ug/L	80.0	ND	30.6	1-140		
Nitrobenzene	64.0		10.0	ug/L	80.0	ND	80.0	35-180		
N-Nitosodi-n-butylamine	65.5		10.0	ug/L	80.0	ND	81.9	1-140		
N-Nitrosodiethylamine	59.9		10.0	ug/L	80.0	ND	74.9	1-140		
N-Nitrosodimethylamine	24.6		10.0	ug/L	80.0	ND	30.8	1-140		
N-Nitrosodi-n-propylamine	65.0		10.0	ug/L	80.0	ND	81.3	1-230		
N-Nitrosodiphenylamine	66.0		10.0	ug/L	80.0	ND	82.5	1-140		
n-Octadecane	64.2		10.0	ug/L	80.0	ND	80.3	1-140		
Pentachlorobenzene	61.6		10.0	ug/L	80.0	ND	77.0	1-140		
Pentachlorophenol	113		10.0	ug/L	80.0	ND	141	14-176		
Phenanthrene	70.2		10.0	ug/L	80.0	ND	87.7	54-120		
Phenol	39.0		10.0	ug/L	80.0	ND	48.8	5-120		
Pyrene	68.9		10.0	ug/L	80.0	ND	86.2	52-120		
Pyridine	ND	MS1	10.0	ug/L	80.0	ND		1-140		
3-Methylphenol	35.6		20.0	ug/L	40.0	ND	89.1	1-140		

Matrix Spike Dup (B24B229-MSD1)

Source: 24B0663-02

Prepared: 02/19/24 07:48

Analyzed: 02/22/24 14:25

1,2,4-Trichlorobenzene	50.5		10.0	ug/L	80.0	ND	63.1	44-142	3.07	50
2,4,5-Trichlorophenol	71.1		10.0	ug/L	80.0	ND	88.9	1-140	1.48	50
2,4,6-Trichlorophenol	70.1		10.0	ug/L	80.0	ND	87.6	37-144	0.545	58
2,4-Dichlorophenol	65.3		10.0	ug/L	80.0	ND	81.6	39-135	1.52	50
2,4-Dimethylphenol	36.4		10.0	ug/L	80.0	ND	45.5	32-120	3.04	58
2,4-Dinitrophenol	108		10.0	ug/L	80.0	ND	134	1-191	1.89	132
2,4-Dinitrotoluene	80.2		10.0	ug/L	80.0	ND	100	39-139	1.27	42
2,6-Dinitrotoluene	77.2		10.0	ug/L	80.0	ND	96.5	50-158	0.263	48
2-Chloronaphthalene	55.7		10.0	ug/L	80.0	ND	69.6	20-120	1.68	24
2-Chlorophenol	65.3		10.0	ug/L	80.0	ND	81.6	23-134	1.87	61
2-Methylphenol	46.7		10.0	ug/L	80.0	ND	58.4	1-140	18.2	50
2-Nitrophenol	65.5		10.0	ug/L	80.0	ND	81.8	29-182	1.10	55
3,3'-Dichlorobenzidine	60.3		10.0	ug/L	200	ND	30.2	1-262	12.3	50
4,6-Dinitro-2-methylphenol	106		10.0	ug/L	80.0	ND	132	1-181	3.01	203
4-Bromophenyl phenyl ether	60.4		10.0	ug/L	80.0	ND	75.5	53-127	3.42	50
4-Chloro-3-methylphenol	68.4		10.0	ug/L	80.0	ND	85.5	22-147	0.338	73
4-Chlorophenyl phenyl Ether	57.6		10.0	ug/L	80.0	ND	71.9	25-158	1.60	61
4-Methylphenol	36.7		10.0	ug/L	40.0	ND	91.9	1-140	3.02	50
4-Nitrophenol	95.2		10.0	ug/L	80.0	ND	119	1-132	1.19	131
Acenaphthene	61.9		10.0	ug/L	80.0	ND	77.4	47-145	1.02	48
Acenaphthylene	51.1		10.0	ug/L	80.0	ND	63.9	33-145	2.10	74
Aniline	24.8		10.0	ug/L	80.0	ND	31.0	1-140	4.81	50
Anthracene	67.9		10.0	ug/L	80.0	ND	84.9	27-133	2.80	50
Azobenzene	69.0		10.0	ug/L	80.0	ND	86.3	1-140	3.91	50
Benzidine	3.48	J	10.0	ug/L	200	ND	1.74	1-140	11.1	50
Benzo(a)pyrene	65.3		10.0	ug/L	80.0	ND	81.6	17-163	1.81	72



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B229 - EPA 625.1_SPE (Continued)										
Matrix Spike Dup (B24B229-MSD1) Source: 24B0663-02					Prepared: 02/19/24 07:48		Analyzed: 02/22/24 14:25			
Benzo(b)fluoranthene	71.7		10.0	ug/L	80.0	ND	89.6	24-159	3.07	71
Benzo(k)Fluoranthene	75.3		10.0	ug/L	80.0	ND	94.1	11-162	4.26	63
Benzo(g,h,i)perylene	57.5		10.0	ug/L	80.0	ND	71.9	1-219	0.0191	97
Benzo[a]anthracene	67.7		10.0	ug/L	80.0	ND	84.6	33-143	5.36	53
Bis(2-chloroethoxy) methane	63.1		10.0	ug/L	80.0	ND	78.9	33-184	0.116	54
Bis(2-chloroethyl) ether	64.1		10.0	ug/L	80.0	ND	80.2	12-158	0.0402	50
Bis(2-chloroisopropyl) ether	61.1		10.0	ug/L	80.0	ND	76.3	36-166	0.555	76
Bis(2-ethylhexyl) phthalate	76.5		10.0	ug/L	80.0	ND	95.6	8-158	6.48	82
Butyl benzyl phthalate	73.8		10.0	ug/L	80.0	ND	92.3	1-152	9.41	60
Carbazole	71.1		10.0	ug/L	80.0	ND	88.9	1-140	1.82	50
Chrysene	76.6		10.0	ug/L	80.0	ND	95.8	17-168	5.90	87
Dibenzo(a,h)anthracene	61.2		10.0	ug/L	80.0	ND	76.4	1-227	1.61	126
Diethyl phthalate	69.4		10.0	ug/L	80.0	ND	86.8	1-120	0.832	100
Dimethyl phthalate	65.2		10.0	ug/L	80.0	ND	81.5	1-120	2.97	183
Di-n-butyl phthalate	66.4		10.0	ug/L	80.0	ND	83.1	1-120	0.518	47
Di-n-octyl phthalate	81.3		10.0	ug/L	80.0	ND	102	4-146	9.63	69
Fluoranthene	66.8		10.0	ug/L	80.0	ND	83.6	26-137	0.969	66
Fluorene	58.6		10.0	ug/L	80.0	ND	73.3	59-121	0.295	38
Hexachlorobenzene	67.2		10.0	ug/L	80.0	ND	84.0	1-152	2.11	55
Hexachlorobutadiene	50.0		10.0	ug/L	80.0	ND	62.5	24-120	2.67	62
Hexachlorocyclopentadiene	20.8		10.0	ug/L	80.0	ND	26.0	1-140	8.92	50
Hexachloroethane	51.5		10.0	ug/L	80.0	ND	64.3	40-120	0.406	52
Indeno(1,2,3-cd)pyrene	66.5		10.0	ug/L	80.0	ND	83.1	1-171	0.760	99
Isophorone	59.9		10.0	ug/L	80.0	ND	74.8	21-196	1.54	93
Naphthalene	60.5		10.0	ug/L	80.0	ND	75.6	21-133	0.819	65
n-Decane	22.0		10.0	ug/L	80.0	ND	27.5	1-140	11.0	50
Nitrobenzene	62.9		10.0	ug/L	80.0	ND	78.6	35-180	1.87	50
N-Nitosodi-n-butylamine	67.5		10.0	ug/L	80.0	ND	84.4	1-140	2.96	50
N-Nitrosodiethylamine	59.3		10.0	ug/L	80.0	ND	74.1	1-140	1.15	50
N-Nitrosodimethylamine	23.5		10.0	ug/L	80.0	ND	29.4	1-140	4.56	50
N-Nitrosodi-n-propylamine	66.9		10.0	ug/L	80.0	ND	83.6	1-230	2.78	87
N-Nitrosodiphenylamine	67.2		10.0	ug/L	80.0	ND	84.0	1-140	1.80	50
n-Octadecane	63.2		10.0	ug/L	80.0	ND	79.0	1-140	1.60	50
Pentachlorobenzene	63.9		10.0	ug/L	80.0	ND	79.9	1-140	3.63	50
Pentachlorophenol	112		10.0	ug/L	80.0	ND	140	14-176	0.949	86
Phenanthrene	69.9		10.0	ug/L	80.0	ND	87.4	54-120	0.390	39
Phenol	30.4		10.0	ug/L	80.0	ND	38.0	5-120	25.0	64
Pyrene	73.5		10.0	ug/L	80.0	ND	91.9	52-120	6.40	49
Pyridine	6.28 J		10.0	ug/L	80.0	ND	7.85	1-140		50
3-Methylphenol	36.6		20.0	ug/L	40.0	ND	91.5	1-140	2.70	50



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B287 - EPA 608.3

Blank (B24B287-BLK1)

Prepared: 02/20/24 08:33 Analyzed: 02/23/24 10:34

4,4'-DDD	ND		0.0250	ug/L						
4,4'-DDE	ND		0.00500	ug/L						
4,4'-DDT	ND		0.0250	ug/L						
Aldrin	ND		0.00500	ug/L						
Alpha-BHC	ND		0.00500	ug/L						
Beta-BHC	ND		0.00500	ug/L						
Chlordane	ND		0.200	ug/L						
Delta-BHC	ND		0.00500	ug/L						
Dicofol	ND		0.0500	ug/L						
Dieldrin	ND		0.00500	ug/L						
Endosulfan I	ND		0.00500	ug/L						
Endosulfan II	ND		0.0250	ug/L						
Endosulfan Sulfate	ND		0.0250	ug/L						
Endrin	ND		0.0250	ug/L						
Endrin-Aldehyde	ND		0.00500	ug/L						
Gamma-BHC	ND		0.00500	ug/L						
Heptachlor	ND		0.00500	ug/L						
Heptachlor epoxide	ND		0.00500	ug/L						
Methoxychlor	ND		0.00500	ug/L						
Mirex	ND		0.00500	ug/L						
PCB-1016	ND		0.200	ug/L						
PCB-1221	ND		0.200	ug/L						
PCB-1232	ND		0.200	ug/L						
PCB-1242	ND		0.200	ug/L						
PCB-1248	ND		0.200	ug/L						
PCB-1254	ND		0.200	ug/L						
PCB-1260	ND		0.200	ug/L						
Toxaphene	ND		0.200	ug/L						
Polychlorinated biphenyls, Total	ND		0.200	ug/L						



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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B287 - EPA 608.3 (Continued)

LCS (B24B287-BS1)

Prepared: 02/20/24 08:33 Analyzed: 02/23/24 10:49

4,4'-DDD	0.0460		0.0250	ug/L	0.0500		92.0	31-141		
4,4'-DDE	0.0380		0.00500	ug/L	0.0500		76.0	30-145		
4,4'-DDT	0.0420		0.0250	ug/L	0.0500		84.0	25-160		
Aldrin	0.0330		0.00500	ug/L	0.0500		66.0	42-140		
Alpha-BHC	0.0450		0.00500	ug/L	0.0500		90.0	37-140		
Beta-BHC	0.0460		0.00500	ug/L	0.0500		92.0	17-147		
Delta-BHC	0.0470		0.00500	ug/L	0.0500		94.0	34-140		
Dicofol (2)	0.143	BS Org	0.0500	ug/L	0.500		28.6	50-150		
Dieldrin	0.0480		0.00500	ug/L	0.0500		96.0	36-146		
Endosulfan I	0.0490		0.00500	ug/L	0.0500		98.0	45-153		
Endosulfan II	0.0520		0.0250	ug/L	0.0500		104	0-202		
Endosulfan Sulfate	0.0450		0.0250	ug/L	0.0500		90.0	50-150		
Endrin	0.0500		0.0250	ug/L	0.0500		100	30-147		
Endrin-Aldehyde	0.0370		0.00500	ug/L	0.0500		74.0	50-150		
Gamma-BHC	0.0480		0.00500	ug/L	0.0500		96.0	32-140		
Heptachlor	0.0380		0.00500	ug/L	0.0500		76.0	19-140		
Heptachlor epoxide	0.0480		0.00500	ug/L	0.0500		96.0	37-142		
Methoxychlor	0.0570		0.00500	ug/L	0.0500		114	26-144		
Mirex	0.0240	BS Org	0.00500	ug/L	0.0500		48.0	50-150		

LCS (B24B287-BS2)

Prepared: 02/20/24 08:33 Analyzed: 02/23/24 11:04

PCB-1016	0.700		0.200	ug/L	1.00		70.0	50-140		
PCB-1260	0.520		0.200	ug/L	1.00		52.0	8-140		

Matrix Spike (B24B287-MS1)

Source: 24B0663-02

Prepared: 02/20/24 08:33 Analyzed: 02/23/24 11:50

4,4'-DDD	0.0980		0.0500	ug/L	0.100	ND	98.0	31-141		
4,4'-DDE	0.0900		0.0100	ug/L	0.100	ND	90.0	30-145		
4,4'-DDT	0.0880		0.0500	ug/L	0.100	ND	88.0	25-160		
Aldrin	0.140		0.0100	ug/L	0.100	ND	140	42-140		
Alpha-BHC	0.0980		0.0100	ug/L	0.100	ND	98.0	37-140		
Beta-BHC	0.132		0.0100	ug/L	0.100	ND	132	17-147		
Delta-BHC	0.120		0.0100	ug/L	0.100	ND	120	34-140		
Dicofol	0.706		0.100	ug/L	1.00	ND	70.6	50-150		
Dieldrin	0.0940		0.0100	ug/L	0.100	ND	94.0	36-146		
Endosulfan I	0.0900		0.0100	ug/L	0.100	ND	90.0	45-153		
Endosulfan II	0.126		0.0500	ug/L	0.100	ND	126	0-202		
Endosulfan Sulfate	0.116		0.0500	ug/L	0.100	ND	116	50-150		
Endrin	0.114		0.0500	ug/L	0.100	ND	114	30-147		
Endrin-Aldehyde	0.104		0.0100	ug/L	0.100	ND	104	50-150		
Gamma-BHC	0.114		0.0100	ug/L	0.100	ND	114	32-140		
Heptachlor	0.0980		0.0100	ug/L	0.100	ND	98.0	19-140		
Heptachlor epoxide	0.150	MS1	0.0100	ug/L	0.100	ND	150	37-142		
Methoxychlor (2)	0.0980		0.0100	ug/L	0.100	ND	98.0	26-144		
Mirex	0.0560		0.0100	ug/L	0.100	ND	56.0	50-150		



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B287 - EPA 608.3 (Continued)

Matrix Spike Dup (B24B287-MSD1) Source: 24B0663-02

Prepared: 02/20/24 08:33 Analyzed: 02/23/24 12:05

4,4'-DDD	0.102		0.0500	ug/L	0.100	ND	102	31-141	4.00	39
4,4'-DDE	0.0860		0.0100	ug/L	0.100	ND	86.0	30-145	4.55	35
4,4'-DDT	0.0880		0.0500	ug/L	0.100	ND	88.0	25-160	0.00	42
Aldrin (2)	0.0500		0.0100	ug/L	0.100	ND	50.0	42-140	14.8	35
Alpha-BHC	0.106		0.0100	ug/L	0.100	ND	106	37-140	7.84	36
Beta-BHC	0.138		0.0100	ug/L	0.100	ND	138	17-147	4.44	44
Delta-BHC	0.128		0.0100	ug/L	0.100	ND	128	34-140	6.45	43
Dicofol	0.684		0.100	ug/L	1.00	ND	68.4	50-150	3.17	50
Dieldrin	0.114		0.0100	ug/L	0.100	ND	114	36-146	19.2	49
Endosulfan I	0.0980		0.0100	ug/L	0.100	ND	98.0	45-153	8.51	28
Endosulfan II	0.130		0.0500	ug/L	0.100	ND	130	0-202	3.12	53
Endosulfan Sulfate	0.118		0.0500	ug/L	0.100	ND	118	50-150	1.71	50
Endrin	0.120		0.0500	ug/L	0.100	ND	120	30-147	5.13	48
Endrin-Aldehyde	0.102		0.0100	ug/L	0.100	ND	102	50-150	1.94	50
Gamma-BHC	0.118		0.0100	ug/L	0.100	ND	118	32-140	3.45	39
Heptachlor	0.106		0.0100	ug/L	0.100	ND	106	19-140	7.84	52
Heptachlor epoxide	0.224	MS1, R, E	0.0100	ug/L	0.100	ND	224	37-142	39.6	26
Methoxychlor (2)	0.102		0.0100	ug/L	0.100	ND	102	26-144	4.00	38
Mirex	0.0520		0.0100	ug/L	0.100	ND	52.0	50-150	7.41	50
Mirex (2)	0.0420		0.0100	ug/L	0.100	ND	42.0	50-150	4.65	50
PCB-1016	ND		0.400	ug/L		ND		50-140		36

Batch: B24B290 - EPA 1657

Blank (B24B290-BLK1)

Prepared: 02/21/24 08:18 Analyzed: 02/22/24 14:46

Chlorpyrifos (2)	ND	0.250	ug/L
Demeton-o (2)	ND	0.250	ug/L
Demeton-s (2)	ND	0.250	ug/L
Diazinon (2)	ND	0.250	ug/L
ethyl-Parathion (2)	ND	0.250	ug/L
Malathion (2)	ND	0.250	ug/L
methyl Azinphos (Guthion) (2)	ND	0.250	ug/L



Upper Brays
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Reported: 04/04/2024 10:25

Quality Control (Continued)

Semivolatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B290 - EPA 1657 (Continued)

LCS (B24B290-BS1)

Prepared: 02/21/24 08:18 Analyzed: 02/22/24 15:07

Chlorpyrifos (2)	0.835		0.250	ug/L	1.00		83.5	48-150		
Demeton-o (2)	0.480		0.250	ug/L	1.00		48.0	16-150		
Demeton-s (2)	0.610		0.250	ug/L	1.00		61.0	16-150		
Diazinon (2)	0.850		0.250	ug/L	1.00		85.0	50-150		
ethyl-Parathion (2)	0.845		0.250	ug/L	1.00		84.5	50-150		
Malathion (2)	0.850		0.250	ug/L	1.00		85.0	50-150		
methyl Azinphos (Guthion) (2)	0.860		0.250	ug/L	1.00		86.0	37-150		

Matrix Spike (B24B290-MS1)

Source: 24B0663-02

Prepared: 02/21/24 08:18 Analyzed: 02/22/24 16:11

Chlorpyrifos (2)	1.77		0.500	ug/L	2.00	ND	88.5	25-150		
Demeton-o (2)	0.770		0.500	ug/L	2.00	ND	38.5	25-150		
Demeton-s (2)	0.810		0.500	ug/L	2.00	ND	40.5	25-150		
Diazinon (2)	2.24		0.500	ug/L	2.00	ND	112	25-150		
ethyl-Parathion (2)	1.82		0.500	ug/L	2.00	ND	91.0	25-150		
Malathion (2)	1.93		0.500	ug/L	2.00	ND	96.5	25-150		
methyl Azinphos (Guthion) (2)	1.84		0.500	ug/L	2.00	ND	92.0	25-150		

Matrix Spike Dup (B24B290-MSD1)

Source: 24B0663-02

Prepared: 02/21/24 08:18 Analyzed: 02/22/24 16:32

Chlorpyrifos (2)	1.78		0.500	ug/L	2.00	ND	89.0	25-150	0.563	200
Demeton-o (2)	1.21		0.500	ug/L	2.00	ND	60.5	25-150	44.4	200
Demeton-s (2)	1.28		0.500	ug/L	2.00	ND	64.0	25-150	45.0	200
Diazinon (2)	2.21		0.500	ug/L	2.00	ND	110	25-150	1.35	200
ethyl-Parathion (2)	1.83		0.500	ug/L	2.00	ND	91.5	25-150	0.548	200
Malathion (2)	1.91		0.500	ug/L	2.00	ND	95.5	25-150	1.04	200
methyl Azinphos (Guthion) (2)	1.89		0.500	ug/L	2.00	ND	94.5	25-150	2.68	200



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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Volatile Organics

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: B24B272 - EPA 624.1

Blank (B24B272-BLK1)

Prepared: 02/19/24 08:14 Analyzed: 02/19/24 09:27

1,1,1-Trichloroethane	ND		5.00	ug/L
1,1,2,2-Tetrachloroethane	ND		5.00	ug/L
1,1,2-Trichloroethane	ND		5.00	ug/L
1,1-Dichloroethane	ND		5.00	ug/L
1,1-Dichloroethene	ND		5.00	ug/L
1,2-Dibromoethane	ND		5.00	ug/L
1,2-Dichlorobenzene	ND		5.00	ug/L
1,2-Dichloroethane	ND		5.00	ug/L
1,2-Dichloropropane	ND		5.00	ug/L
1,3-Dichlorobenzene	ND		5.00	ug/L
1,4-Dichlorobenzene	ND		5.00	ug/L
2-Butanone	ND		10.0	ug/L
2-Chloroethyl vinyl ether	ND		5.00	ug/L
Acrolein	ND		5.00	ug/L
Acrylonitrile	ND		5.00	ug/L
Benzene	ND		5.00	ug/L
Bromodichloromethane	ND		5.00	ug/L
Bromoform	ND		5.00	ug/L
Bromomethane	ND		5.00	ug/L
Carbon Disulfide	ND		5.00	ug/L
Carbon Tetrachloride	ND		5.00	ug/L
Chlorobenzene	ND		5.00	ug/L
Chloroethane	ND		5.00	ug/L
Chloroform	ND		4.00	ug/L
chloromethane	ND		5.00	ug/L
cis-1,2-Dichloroethene	ND		5.00	ug/L
cis-1,3-Dichloropropene	ND		5.00	ug/L
Dibromochloromethane	ND		5.00	ug/L
Epichlorohydrin	ND		25.0	ug/L
Ethylbenzene	ND		5.00	ug/L
m+p-Xylene	ND		10.0	ug/L
Methylene Chloride	ND		5.00	ug/L
Methyl-tert-butyl ether (MTBE)	ND		5.00	ug/L
o-Xylene	ND		5.00	ug/L
Styrene	ND		5.00	ug/L
Tetrachloroethene	ND		5.00	ug/L
Toluene	ND		5.00	ug/L
trans-1,2-Dichloroethene	ND		4.00	ug/L
trans-1,3-Dichloropropene	ND		5.00	ug/L
Trichloroethene	ND		5.00	ug/L
Vinyl acetate	ND		5.00	ug/L
Vinyl chloride	ND		5.00	ug/L
Xylenes, Total	ND		5.00	ug/L
Total Trihalomethanes	ND		5.00	ug/L
1,3-Dichloropropene, Total	ND		5.00	ug/L



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Volatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B272 - EPA 624.1 (Continued)										
Matrix Spike (B24B272-MS1)	Source: 24B0663-01				Prepared: 02/19/24 08:14 Analyzed: 02/19/24 14:38					
1,1,1-Trichloroethane	21.0			ug/L	20.0	0.00	105	52-162		
1,1,2,2-Tetrachloroethane	21.1			ug/L	20.0	0.00	106	46-157		
1,1,2-Trichloroethane	21.3			ug/L	20.0	0.00	106	52-150		
1,1-Dichloroethane	20.4			ug/L	20.0	0.00	102	59-155		
1,1-Dichloroethene	17.1			ug/L	20.0	0.00	85.4	0-234		
1,2-Dibromoethane	20.7			ug/L	20.0	0.00	104	60-140		
1,2-Dichlorobenzene	20.4			ug/L	20.0	0.00	102	18-190		
1,2-Dichloroethane	21.6			ug/L	20.0	0.00	108	49-155		
1,2-Dichloropropane	21.6			ug/L	20.0	0.00	108	0-210		
1,3-Dichlorobenzene	20.3			ug/L	20.0	0.00	101	59-156		
1,4-Dichlorobenzene	20.6			ug/L	20.0	0.00	103	18-190		
2-Butanone	36.5			ug/L	40.0	0.00	91.3	60-140		
2-Chloroethyl vinyl ether	24.5			ug/L	20.0	0.00	123	0-305		
Acrolein	0.00	MS1		ug/L	20.0	0.00		40-160		
Acrylonitrile	24.7			ug/L	20.0	0.00	123	40-160		
Benzene	20.8			ug/L	20.0	0.00	104	37-151		
Bromodichloromethane	37.3			ug/L	20.0	16.2	106	35-155		
Bromoform	21.5			ug/L	20.0	0.00	107	45-169		
Bromomethane	17.0			ug/L	20.0	0.00	84.8	0-242		
Carbon Disulfide	17.4			ug/L	20.0	0.00	86.9	60-140		
Carbon Tetrachloride	20.5			ug/L	20.0	0.00	102	70-140		
Chlorobenzene	20.8			ug/L	20.0	0.00	104	37-160		
Chloroethane	23.5			ug/L	20.0	0.00	118	14-230		
Chloroform	62.8			ug/L	20.0	41.2	108	51-138		
chloromethane	21.0			ug/L	20.0	0.00	105	0-273		
cis-1,2-Dichloroethene	20.6			ug/L	20.0	0.00	103	60-140		
cis-1,3-Dichloropropene	21.4			ug/L	20.0	0.00	107	0-227		
Dibromochloromethane	26.8			ug/L	20.0	5.14	108	53-149		
Epichlorohydrin	112			ug/L	100	0.00	112	70-130		
Ethylbenzene	20.8			ug/L	20.0	0.00	104	37-162		
m+p-Xylene	41.4			ug/L	40.0	0.00	103	60-140		
Methylene Chloride	19.6			ug/L	20.0	0.00	97.9	0-221		
Methyl-tert-butyl ether (MTBE)	21.1			ug/L	20.0	0.00	106	70-130		
o-Xylene	20.1			ug/L	20.0	0.00	101	60-140		
Styrene	20.4			ug/L	20.0	0.00	102	60-140		
Tetrachloroethene	20.3			ug/L	20.0	0.00	101	64-148		
Toluene	20.5			ug/L	20.0	0.00	103	47-150		
trans-1,2-Dichloroethene	19.3			ug/L	20.0	0.00	96.4	54-156		
trans-1,3-Dichloropropene	20.7			ug/L	20.0	0.00	104	17-183		
Trichloroethene	21.0			ug/L	20.0	0.00	105	70-157		
Vinyl acetate	22.9			ug/L	20.0	0.00	115	60-140		
Vinyl chloride	22.9			ug/L	20.0	0.00	114	0-251		



Upper Brays
13525 W Houston Center Blvd
Houston, TX 77082

Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Volatile Organics (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B272 - EPA 624.1 (Continued)										
Matrix Spike Dup (B24B272-MSD1) Source: 24B0663-01					Prepared: 02/19/24 08:14 Analyzed: 02/19/24 15:06					
1,1,1-Trichloroethane	20.9			ug/L	20.0	0.00	104	52-162	0.668	36
1,1,2,2-Tetrachloroethane	21.1			ug/L	20.0	0.00	106	46-157	0.142	61
1,1,2-Trichloroethane	21.5			ug/L	20.0	0.00	107	52-150	0.983	45
1,1-Dichloroethane	20.3			ug/L	20.0	0.00	102	59-155	0.393	40
1,1-Dichloroethene	16.9			ug/L	20.0	0.00	84.6	0-234	0.942	32
1,2-Dibromoethane	21.0			ug/L	20.0	0.00	105	60-140	1.39	20
1,2-Dichlorobenzene	20.2			ug/L	20.0	0.00	101	18-190	0.789	57
1,2-Dichloroethane	20.9			ug/L	20.0	0.00	105	49-155	3.20	49
1,2-Dichloropropane	21.7			ug/L	20.0	0.00	108	0-210	0.323	55
1,3-Dichlorobenzene	20.2			ug/L	20.0	0.00	101	59-156	0.148	43
1,4-Dichlorobenzene	20.8			ug/L	20.0	0.00	104	18-190	1.02	57
2-Butanone	35.6			ug/L	40.0	0.00	89.0	60-140	2.52	20
2-Chloroethyl vinyl ether	23.7			ug/L	20.0	0.00	119	0-305	3.32	71
Acrolein	0.00	MS1		ug/L	20.0	0.00		40-160		60
Acrylonitrile	24.0			ug/L	20.0	0.00	120	40-160	2.71	60
Benzene	20.5			ug/L	20.0	0.00	103	37-151	1.36	61
Bromodichloromethane	37.8			ug/L	20.0	16.2	108	35-155	1.31	56
Bromoform	21.8			ug/L	20.0	0.00	109	45-169	1.25	42
Bromomethane	16.4			ug/L	20.0	0.00	82.2	0-242	3.11	61
Carbon Disulfide	16.5			ug/L	20.0	0.00	82.6	60-140	5.07	20
Carbon Tetrachloride	20.5			ug/L	20.0	0.00	102	70-140	0.146	41
Chlorobenzene	21.0			ug/L	20.0	0.00	105	37-160	1.15	53
Chloroethane	24.6			ug/L	20.0	0.00	123	14-230	4.29	78
Chloroform	63.7			ug/L	20.0	41.2	112	51-138	1.44	54
chloromethane	20.3			ug/L	20.0	0.00	102	0-273	3.10	60
cis-1,2-Dichloroethene	20.5			ug/L	20.0	0.00	102	60-140	0.632	20
cis-1,3-Dichloropropene	21.2			ug/L	20.0	0.00	106	0-227	0.987	58
Dibromochloromethane	27.2			ug/L	20.0	5.14	110	53-149	1.44	50
Epichlorohydrin	113			ug/L	100	0.00	113	70-130	1.06	20
Ethylbenzene	21.2			ug/L	20.0	0.00	106	37-162	1.81	63
m+p-Xylene	41.8			ug/L	40.0	0.00	105	60-140	1.18	20
Methylene Chloride	19.2			ug/L	20.0	0.00	96.0	0-221	1.91	28
Methyl-tert-butyl ether (MTBE)	20.9			ug/L	20.0	0.00	104	70-130	1.24	20
o-Xylene	20.5			ug/L	20.0	0.00	102	60-140	1.72	20
Styrene	20.6			ug/L	20.0	0.00	103	60-140	1.02	20
Tetrachloroethene	20.5			ug/L	20.0	0.00	102	64-148	0.982	39
Toluene	20.8			ug/L	20.0	0.00	104	47-150	1.45	41
trans-1,2-Dichloroethene	18.8			ug/L	20.0	0.00	94.0	54-156	2.63	45
trans-1,3-Dichloropropene	21.1			ug/L	20.0	0.00	106	17-183	1.77	86
Trichloroethene	20.6			ug/L	20.0	0.00	103	70-157	1.59	48
Vinyl acetate	20.2			ug/L	20.0	0.00	101	60-140	12.8	20
Vinyl chloride	22.4			ug/L	20.0	0.00	112	0-251	1.90	66



Upper Brays
13525 W Houston Center Blvd
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Quality Control (Continued)

Wet Chemistry

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B251 - SM 2540 C										
Blank (B24B251-BLK1)			Prepared: 02/16/24 13:25 Analyzed: 02/20/24 14:00							
Total Dissolved Solids	ND		5.0	mg/L						
LCS (B24B251-BS1)			Prepared: 02/16/24 13:25 Analyzed: 02/20/24 14:00							
Total Dissolved Solids	147			mg/L	150		98.0	85-115		
Duplicate (B24B251-DUP1)			Source: 24B0663-02		Prepared: 02/16/24 13:25 Analyzed: 02/20/24 14:00					
Total Dissolved Solids	547		5.0	mg/L		578			5.51	10
Batch: B24B254 - SM 5210 B										
Blank (B24B254-BLK1)			Prepared: 02/16/24 08:31 Analyzed: 02/21/24 08:28							
Biochemical Oxygen Demand, Carbonaceous	ND BOD t		2.00	mg/L						
Blank (B24B254-BLK2)			Prepared: 02/16/24 08:31 Analyzed: 02/21/24 08:28							
Biochemical Oxygen Demand, Carbonaceous	ND BOD t		2.00	mg/L						
Blank (B24B254-BLK3)			Prepared: 02/16/24 08:31 Analyzed: 02/21/24 08:28							
Biochemical Oxygen Demand, Carbonaceous	ND BOD t		2.00	mg/L						
Blank (B24B254-BLK4)			Prepared: 02/16/24 08:31 Analyzed: 02/21/24 08:28							
Biochemical Oxygen Demand, Carbonaceous	ND BOD t		2.00	mg/L						
LCS (B24B254-BS1)			Prepared: 02/16/24 08:31 Analyzed: 02/21/24 08:35							
Biochemical Oxygen Demand, Carbonaceous	209 BOD t		31.0	mg/L	198		106	85-115		
LCS (B24B254-BS2)			Prepared: 02/16/24 08:31 Analyzed: 02/21/24 08:35							
Biochemical Oxygen Demand, Carbonaceous	205 BOD t		31.0	mg/L	198		104	85-115		



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Reported: 04/04/2024 10:25

Quality Control (Continued)

Wet Chemistry (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B254 - SM 5210 B (Continued)										
LCS (B24B254-BS3)										
Biochemical Oxygen Demand, Carbonaceous	193	BOD t	31.0	mg/L	198		97.5	85-115		
					Prepared: 02/16/24 08:31		Analyzed: 02/21/24 08:35			
LCS (B24B254-BS4)										
Biochemical Oxygen Demand, Carbonaceous	212	BOD t	31.0	mg/L	198		107	85-115		
					Prepared: 02/16/24 08:31		Analyzed: 02/21/24 08:35			
Batch: B24B260 - SM 2540 D, E										
Blank (B24B260-BLK1)										
Total Suspended Solids	ND		2.0	mg/L						
					Prepared: 02/16/24 11:30		Analyzed: 02/19/24 09:40			
LCS (B24B260-BS1)										
Total Suspended Solids	20.7		2.0	mg/L	21.1		98.1	85-115		
					Prepared: 02/16/24 11:30		Analyzed: 02/19/24 09:40			
Duplicate (B24B260-DUP1)	Source: 24B0663-02									
Total Suspended Solids	8.7		2.0	mg/L		8.1			7.14	10
					Prepared: 02/16/24 11:30		Analyzed: 02/19/24 09:40			
Duplicate (B24B260-DUP2)	Source: 24B0692-01									
Total Suspended Solids	374		57.1	mg/L		394			5.20	10
					Prepared: 02/16/24 11:30		Analyzed: 02/19/24 09:40			
Batch: B24B281 - EPA 350.1										
Blank (B24B281-BLK1)										
Ammonia as N	ND		0.0500	mg/L						
					Prepared: 02/20/24 16:28		Analyzed: 02/20/24 16:28			
LCS (B24B281-BS1)										
Ammonia as N	1.06			mg/L	1.00		106	90-110		
					Prepared: 02/20/24 16:31		Analyzed: 02/20/24 16:31			



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Reported: 04/04/2024 10:25

Quality Control (Continued)

Wet Chemistry (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B281 - EPA 350.1 (Continued)										
Matrix Spike (B24B281-MS1) Ammonia as N	1.04		0.0500	mg/L	1.00	ND	104	90-110		
Matrix Spike (B24B281-MS2) Ammonia as N	0.999		0.0500	mg/L	1.00	ND	99.9	90-110		
Matrix Spike Dup (B24B281-MSD1) Ammonia as N	1.03		0.0500	mg/L	1.00	ND	103	90-110	1.13	200
Matrix Spike Dup (B24B281-MSD2) Ammonia as N	1.04		0.0500	mg/L	1.00	ND	104	90-110	4.26	200
Batch: B24B291 - SM 2320										
Blank (B24B291-BLK1) Total Alkalinity as CaCO ₃	ND		20.0	mg/L						
Blank (B24B291-BLK2) Total Alkalinity as CaCO ₃	ND		20.0	mg/L						
LCS (B24B291-BS1) Total Alkalinity as CaCO ₃	140			mg/L	150		93.1	90-110		
LCS (B24B291-BS2) Total Alkalinity as CaCO ₃	141			mg/L	150		94.1	90-110		
Duplicate (B24B291-DUP1) Total Alkalinity as CaCO ₃	61.2		20.0	mg/L		61.1			0.164	10



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Reported: 04/04/2024 10:25

Quality Control (Continued)

Wet Chemistry (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B291 - SM 2320 (Continued)										
Reference (B24B291-SRM1)					Prepared: 02/20/24 09:29		Analyzed: 02/20/24 09:29			
Total Alkalinity as CaCO ₃	47.0			mg/L	50.0		94.0	0-200		
Batch: B24B295 - SM 4500-N ORG B										
Blank (B24B295-BLK1)					Prepared: 02/20/24 10:00		Analyzed: 02/23/24 07:10			
Total Kjeldahl Nitrogen	ND		0.500	mg/L						
LCS (B24B295-BS1)					Prepared: 02/20/24 10:00		Analyzed: 02/23/24 07:10			
Total Kjeldahl Nitrogen	2.99		0.500	mg/L	3.00		99.7	85-115		
Duplicate (B24B295-DUP1)					Prepared: 02/20/24 10:00		Analyzed: 02/23/24 07:10			
Total Kjeldahl Nitrogen	1.64		0.500	mg/L		1.58			3.73	20
Matrix Spike (B24B295-MS1)					Prepared: 02/20/24 10:00		Analyzed: 02/23/24 07:10			
Total Kjeldahl Nitrogen	4.22		0.500	mg/L	3.00	1.58	88.0	70-130		
Reference (B24B295-SRM1)					Prepared: 02/20/24 10:00		Analyzed: 02/23/24 07:10			
Total Kjeldahl Nitrogen	2.90			mg/L	3.00		96.7	90-110		
Batch: B24B338 - OIA 1677										
Blank (B24B338-BLK1)					Prepared: 02/22/24 10:08		Analyzed: 02/22/24 12:37			
Cyanide, Amenable	ND		2.00	ug/L						
Cyanide, Total	ND		10.0	ug/L						
LCS (B24B338-BS1)					Prepared: 02/22/24 10:08		Analyzed: 02/22/24 12:42			
Cyanide, Total	107			ug/L	100		107	84-116		
Cyanide, Amenable	57.5			ug/L	50.0		115	82-132		



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Quality Control (Continued)

Wet Chemistry (Continued)

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B24B338 - OIA 1677 (Continued)										
Duplicate (B24B338-DUP1)	Source: 24B0663-01				Prepared: 02/22/24 10:08		Analyzed: 02/22/24 13:12			
Cyanide, Total	4.56 J		10.0	ug/L		4.17			8.91	47
Cyanide, Amenable	1.89 J		2.00	ug/L		2.24			17.3	15
Matrix Spike (B24B338-MS1)	Source: 24B0663-01				Prepared: 02/22/24 10:08		Analyzed: 02/22/24 13:17			
Cyanide, Total	58.1		10.0	ug/L	50.0	4.17	108	64-136		
Cyanide, Amenable	51.3		2.00	ug/L	50.0	2.24	98.2	82-130		
Batch: B24B461 - EPA 218.6										
Blank (B24B461-BLK1)					Prepared: 03/01/24 07:45		Analyzed: 03/01/24 11:47			
Chromium Hexavalent	ND		1.00	ug/L						
LCS (B24B461-BS1)					Prepared: 03/01/24 07:45		Analyzed: 03/01/24 11:59			
Chromium Hexavalent	4.94			ug/L	5.00		98.9	90-110		
Matrix Spike (B24B461-MS1)	Source: 24B0664-02				Prepared: 03/01/24 07:45		Analyzed: 03/01/24 12:32			
Chromium Hexavalent	4.35		1.01	ug/L	5.03	ND	86.7	80-120		
Matrix Spike (B24B461-MS2)	Source: 24B0955-04				Prepared: 03/01/24 07:45		Analyzed: 03/01/24 14:12			
Chromium Hexavalent	5.15		1.01	ug/L	5.03	ND	102	80-120		
Matrix Spike Dup (B24B461-MSD1)	Source: 24B0664-02				Prepared: 03/01/24 07:45		Analyzed: 03/01/24 12:43			
Chromium Hexavalent	4.61		1.01	ug/L	5.03	ND	91.8	80-120	5.78	20
Matrix Spike Dup (B24B461-MSD2)	Source: 24B0955-04				Prepared: 03/01/24 07:45		Analyzed: 03/01/24 14:23			
Chromium Hexavalent	5.25		1.01	ug/L	5.03	ND	104	80-120	1.93	20



Upper Brays
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Project: UB Full Scan + Permit
Project Number: 10495-116
Project Manager: Regulatory Compliance

Reported: 04/04/2024 10:25

Notes and Definitions

Item	Definition
B 10x	Blanks contained target analytes above the MDL. Associated sample concentrations were greater than 10x the detect in the blank, therefore data have been reported.
B FLD	The Field and/or Equipment (Rinsate) Blank contained target compounds above the detection limit. Contamination from the sampling site, sample collection, or transportation is suspected as laboratory blanks met QC criteria. Data reported with narration.
BOD t	The temperature of the BOD incubator was outside of method criteria for all or part of the 5-day incubation period. Data have been qualified.
BS Org	Blank Spike recovered outside of acceptance criteria for the selected compounds. These compounds have been identified as poor performing compounds for this method. Data have been reported.
E	The reported result is above the calibration range for this analysis. Results should be considered ESTIMATED.
J	Analyte was detected. However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
MS1	MS/MSD recovery was outside of acceptance criteria due to matrix interference.
MS3	MS/MSD recovery was outside of acceptance limits. All other QC was acceptable, therefore data have been reported.
R	The RPD was outside of acceptance criteria due to possible matrix interference. All other QC criteria was met, therefore data have been reported.
R Log	The RPD for the sample duplicate was outside of acceptance criteria but within the method required logarithmic precision criteria, therefore, data has been reported.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
DL	Detection Limit
RL	Reporting Limit
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

Company Name:	Upper Brays Pollutant Monitoring
Address:	13525 W Houston Center Blvd Houston, TX 77082
Permit Number:	10495-116



Sampler:	Upper Brays Pollutant Monitoring
Permit Requirement	Compliance Verification
Special Report	POTW Permit Application
Other	
UB Full Scan + Permit	

24B0663



Composite Info	
Sample ID:	24B0663-01
Split Samples:	Yes No
Number of bottles:	1 2 3 4 5 6
Sample Volume:	mL
Sample Interval:	min
Autosampler secured/locked:	Yes No N/A
Comp Temp(°C)	5.6

Field Test Traceability Info	
TRC ID:	
Temperature ID:	
pH Measured By:	Paper Meter
pH ID:	
Eff Sampler temp(°C)	
Inf Sampler temp(°C)	

Sample comments key:

ND - No Discharge
IQ - Insufficient Quantity
CC - Company Closed
EF - Equipment Failure
Other (write in description)

*Matrix: W - Water, S - Solid, C - Chemical

Sample Identification	# Cont	Grab/Comp	Matrix*	Location	Begin Sampled Date/Time	(End) Sampled Date/Time	Container with Preservation	Test Method	Field Test	Comments
24B0663-01	25	CMan	W	SP 2_CompMan	7:10 02/15/24	23:28 02/15/24	(1) 1 L Amber Glass, PTFE Lined Cap, NaOH to pH >10 Cool <6°C, NaOH to pH >10, NaAsO2 if TRC present (6) 40 mL Glass, PTFE lined septum Cool <6°C (8) 40 mL Glass, PTFE lined septum, HCl to pH <2 Cool <6°C, HCl to pH <2	Cyanide OIA 1677 Cyanide D7511 Mercury 1631E VOA 624.1 VOA 624.1		

* COLLECTED AS 4 PARTS GRAB, 7:10, 11:58, 1810, 2328

Δ COLLECTED AS 4 PARTS GRAB, 7:10, 11:58, 1810, 2328

□ COLLECTED AS 4 PARTS GRAB, 7:10, 11:58, 1810, 2328

COMPOSTED IN FIELD

COMPOSTED AT ANALYST

COMPOSTED AT ANALYST

Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location
	02/16/24 11:11			2/16/24 11:11	Coal
Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location

Company Name:	Upper Brays Pollutant Monitoring
Address:	13525 W Houston Center Blvd Houston, TX 77082
Permit Number:	10495-116



Sampler:	<i>Upper Brays / Aaron Hernandez</i>
IWS Sample Reason	
<input type="checkbox"/> Permit Requirement <input type="checkbox"/> Special Report <input type="checkbox"/> Other	<input type="checkbox"/> Compliance Verification <input checked="" type="checkbox"/> POTW Permit Application
UB Full Scan + Permit	

24B0663



Sample Identification	# Cont	Grab/Comp	Matrix*	Location	Begin Sampled Date/Time	(End) Sampled Date/Time	Container with Preservation	Test Method	Field Test	Comments
24B0663-02	18	C	W	SP 2_Comp	8:00 02/16/24	8:00 02/16/24	(9) 1 L Amber Glass, PTFE Lined Cap, 0.008% Na2S2O3 Cool <6°C, 0.008% Na2S2O3	Pesticides 1657 [D] Pesticides 608.3 [G] BNA 625.1 [J] Nitrate as N 300.0 [G] Sulfate 300.0 [C] Chloride 300.0 [E] Fluoride 300.0 [C] CBOD 5210 B [M] TSS 2540 D [N] TDS 2540 C [P] Alkalinity 2320 B [P] Chromium, Hexavalent 218.6 [A] NH3 as N 350.1 [O] TKN 4500-NH3 D [Q] Phosphorus 200.7 [R] Metals WWTP Eff [B] Metals WWTP Eff [B] Mercury 1631E [A]		
24B0663-03	2	G	W	Field Blank	11:58 02/16/24	11:58 02/16/24	(1) 1 L PE or G, (NH4)2SO4 buffer, NaOH to pH 9.3-9.7 Cool <6°C, (NH4)2SO4 buffer, NaOH to pH 9.3-9.7 (3) 500 mL PE, H2SO4 to pH <2 Cool <6°C, H2SO4 to pH <2 (1) 500 mL PE, HNO3 to pH <2 Cool <6°C, HNO3 to pH <2 (1) 1 L PE or Glass, HNO3 to pH <2 Cool <6°C, HNO3 to pH <2 (1) 40 mL Glass, PTFE lined septum, HCl to pH <2 Cool <6°C			

Relinquished by: (Signature)	<i>[Signature]</i>	Date/Time	02/16/24 11:11	Location		Received by: (Signature)	<i>[Signature]</i>	Date/Time	2/16/24 11/11	Location	Con
Relinquished by: (Signature)		Date/Time		Location		Received by: (Signature)		Date/Time		Location	

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **Upper Brays Regional**
Ne Corner Old Westheimer & Alief, Houston, TX

Location: **EFFLUENT**

Sample No. **5341632** Permit No. **5073** Outfall: **2** Scheduled Date: **2/16/2024**
Sample Type: **CMAN** Sample Matrix: **Liquid**
SAMPLE COLLECTED ☒ Yes ☐ No If No: ☐ No Discharge ☐ Quantity Not Sufficient
☐ Company Closed ☐ Equipment Failure:

COMPOSITE TIME/DATE: **SAMPLE DETAILS:** Temp: ☐
Begin: **7:10** Split Sample: ☐ Yes ☒ No
End: **23:28** # of Bottles: **1** 2 3 4 5
Begin Date: **02/15/24** Sample Volume: **250** ml
End Date: **02/15/24** Sample Interval: **300** min.
GRAB TIME/DATE: **FIELD TESTS:**
Time: ☐ pH: ☐
Date: **N.A.** ☐ Paper, Lot #
TRC ☐ Lot #84032C ☐ Meter, S/N
Temperature ☐ °C, S/N **A.18**

Autosampler Secured/Locked? ☐ Yes ☒ No ☒ NA Sampler (Print): **DEBBY FINELL, Aunt Harriet**

Comments: **COLLECTED AS A 4 PARTS GRAB, 7:10, 11:58, 18:10, 23:28**

* Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
<input checked="" type="checkbox"/> 5341632-006	Phenol, Total (EPA 420.1)		1 L Amber Glass, PTFE lined cap	Cool <6°C, H2SO4 to pH <2	1
LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: ☐ COH Wastewater Lab ☒ City Contract Lab: **A&B**

Seals Intact: ☐ Yes ☐ No 568 IR Thermometer S/N # 27910254 ☐ S/N # 29650075 ☐ Temp ☐ °C Initial ☐

pH Strip Manufacturer: ☐ Lot #: ☐ Initial: ☐

Relinquished By: **[Signature]** Date: **02/16/24** Time: **13:40**

Received By: **[Signature]** Date: **2/16/24** Time: **13:40**

Relinquished By: ☐ Date: ☐ Time: ☐

Received By: ☐ Date: ☐ Time: ☐

Relinquished By: ☐ Received By: ☐ Date: ☐ Time: ☐

* Delivered to Lab if Box is Checked



LABORATORY TEST RESULTS

Job ID : 24021880

Date 2/23/2024

Client Name: Houston, City of

Attn: James Nguyen

Project Name:

Client Sample ID: 5341632

Job Sample ID: 24021880.14

Date Collected: 02/15/24

Sample Matrix Water

Time Collected: 23:28

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 420.4	Phenolics (Total Phenols)									
	Phenols	<0.0045	mg/L	1	0.0045	0.01		U	02/16/24 15:37	SKC

ab-q212-0321

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: Upper Brays Regional
Ne Corner Old Westheimer & Alief, Houston, TX

Location: EFFLUENT

Sample No. 5341631 Permit No. 5073 Outfall: 2 Scheduled Date: 2/16/2024
Sample Type: Grab Sample Matrix: Liquid

SAMPLE COLLECTED ☒ Yes ☐ No If No: ☐ No Discharge ☐ Quantity Not Sufficient
☐ Company Closed ☐ Equipment Failure:

COMPOSITE TIME/DATE: SAMPLE DETAILS: Temp: GRAB TIME/DATE: FIELD TESTS:
Begin: Split Sample: ☐ Yes ☒ No Time: 8:59 pH:
End: # of Bottles: 1 2 3 4 5 Date: 02/16/24 ☐ Paper, Lot #
Begin Date: Sample Volume: 1000 ml TRC , Lot #84032C ☐ Meter, S/N
End Date: Sample Interval: 0 min. Temperature °C, S/N

Autosampler Secured/Locked? ☐ Yes ☐ No ☒ NA Sampler (Print): DEBBY FANEU

Comments:

* Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
5341631-005	Oil and Grease (Total) / HEM (EPA 1664)		1 L Amber Glass, PTFE lined cap	Cool <6°C, H2SO4 to pH <2	1
LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: ☐ COH Wastewater Lab ☒ City Contract Lab: A&B

Seals Intact: ☐ Yes ☐ No 568 IR Thermometer S/N # 27910254 S/N # 29650075 Temp °C Initial

pH Strip Manufacturer: Lot #: Initial:

Relinquished By: Date: 02/16/24 Time: 13:40

Received By: Date: 2/16/24 Time: 13:40

Relinquished By: Date: / / Time: .

Received By: Date: / / Time: .

Relinquished By: Received By: Date: / / Time: .

* Deliverd to Lab if Box is Checked

**LABORATORY TEST RESULTS**

Job ID : 24021880

Date 2/23/2024

Client Name: Houston, City of

Attn: James Nguyen

Project Name:

Client Sample ID: 5341631

Job Sample ID: 24021880.04

Date Collected: 02/16/24

Sample Matrix Water

Time Collected: 08:59

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 1664B	Oil & Grease, Hexane Extractables									
	Oil & Grease	<1.72	mg/L	1.23	1.72	3.08		U	02/19/24 08:05	SG

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **Upper Brays Regional**
Ne Corner Old Westheimer & Alief, Houston, TX

Location: **EFFLUENT**

Sample No. **5341632** Permit No. **5073** Outfall: **2** Scheduled Date: **2/16/2024**
Sample Type: **COMP** Sample Matrix: **Liquid**

SAMPLE COLLECTED ☒ Yes ☐ No If No: ☐ No Discharge ☐ Quantity Not Sufficient
☐ Company Closed ☐ Equipment Failure:

COMPOSITE TIME/DATE:		SAMPLE DETAILS: Temp: <u>5.6</u>		GRAB TIME/DATE:		FIELD TESTS:	
Begin: <u>8:00</u>	Split Sample: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Time: _____		pH: _____			
End: <u>8:00</u>	# of Bottles: 1 2 3 4 5 <u>5</u>	Date: <u>2/15/24</u>		<input checked="" type="checkbox"/> Paper, Lot # <u>N.A.</u>			
Begin Date: <u>02/15/24</u>	Sample Volume: <u>800</u> ml	TRC _____, Lot #84032C		<input type="checkbox"/> Meter, S/N _____			
End Date: <u>02/16/24</u>	Sample Interval: <u>Flow</u> min.	Temperature _____ °C, S/N _____					

Autosampler Secured/Locked? ☒ Yes ☐ No ☐ NA Sampler (Print): JEFFREY BARNELL

Comments:

* Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
<input checked="" type="checkbox"/> 5341632-001	Bisphenol A (ASTM D7065-11 or 625); Nonylphenol (1625 or ASTM D7065)		1 L Amber Glass, PTFE lined cap	Cool <6°C, H2SO4 to pH <2	2
<input checked="" type="checkbox"/> 5341632-004	Hexachlorophene (EPA 604.1)		1 L Amber Glass, PTFE lined cap	Cool <6°C	2
<input checked="" type="checkbox"/> 5341632-007	Chloride, Sulfate (EPA 300.0); Fluoride (EPA 300.0); Nitrate as N (EPA 300.0)		1 L Polyethylene	Cool <6°C	1
LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: ☐ COH Wastewater Lab ☒ City Contract Lab: A&B

Seals Intact: ☐ Yes ☐ No 568 IR Thermometer S/N # 27910254 ☐ S/N # 29650075 Temp _____ °C Initial _____

pH Strip Manufacturer: _____ Lot #: _____ Initial: _____

Relinquished By: [Signature] Date: 02/16/24 Time: 13:40

Received By: [Signature] Date: 2/16/24 Time: 13:40

Relinquished By: _____ Date: ____/____/____ Time: ____:____

Received By: _____ Date: ____/____/____ Time: ____:____

Relinquished By: _____ Received By: _____ Date: ____/____/____ Time: ____:____

* Deliverd to Lab if Box is Checked



LABORATORY TEST RESULTS

Job ID : 24021880

Date 2/23/2024

Client Name: Houston, City of

Attn: James Nguyen

Project Name:

Client Sample ID: 5341632

Job Sample ID: 24021880.17

Date Collected: 02/16/24

Sample Matrix Water

Time Collected: 08:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 300.0	Anions									
	Fluoride	0.250	mg/L	1.00	0.02	0.100			02/16/24 21:26	KPE
	Chloride	97.2	mg/L	20.00	0.360	2.00			02/16/24 21:46	KPE
	Nitrate-N	26.0	mg/L	20.00	0.140	2.00			02/16/24 21:46	KPE
	Sulfate	60.0	mg/L	20.00	0.200	2.00			02/16/24 21:46	KPE
ASTM D7065-11										
	Bisphenol A ²	<5.00	ug/L	1.00		5.00		U	02/21/24 21:06	GM
	Nonylphenol ¹	<5.00	ug/L	1.00	5.00	5.00		U	02/20/24 11:48	GM
	Terphenyl-d14(surr)	72.8	%	1.00		18-137			02/21/24 21:06	GM

ab-q212-0321



ABL2-G

A & B Labs
 Shantall Carpenter
 10100 East Freeway
 Suite 100
 Houston, TX 77029

Page 1 of 2

Project
1092387

Printed: 02/23/2024

51808/24021880.17

RESULTS

Sample Results

2274276 5341632-004

Received: 02/20/2024

Non-Potable Water

Collected by: Client

A & B Labs

PO:

51808/24021880.17

Taken: 02/15/2024

08:00:00

EPA 604.1

Prepared: 1105152 02/20/2024 13:45:00

Analyzed 1105656 02/22/2024

03:43:00 BRU

Parameter

Results

Units

RL

Flags

CAS

Bottle

Hexachlorophene

<0.00134

mg/L

0.00134

70-30-4

03

Sample Preparation

2274276 5341632-004

Received: 02/20/2024

51808/24021880.17

02/15/2024

Prepared: 02/20/2024 14:14:49

Calculated

02/20/2024

14:14:49 CAL

Environmental Fee (per Project)

Verified

EPA 604.1

Prepared: 1105152 02/20/2024 13:45:00

Analyzed 1105152 02/20/2024

13:45:00 MCC

Hexachlorophene Extraction

5/935

ml

01

EPA 604.1

Prepared: 1105152 02/20/2024 13:45:00

Analyzed 1105656 02/22/2024

03:43:00 BRU

Hexachlorophene Expansion

Entered

70-30-4

03



Report Page 3 of 7

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **Upper Brays Regional**
Ne Corner Old Westheimer & Alief, Houston, TX

Location: **EFFLUENT**

Sample No. **5341632** Permit No. **5073** Outfall: **2** Scheduled Date: **2/16/2024**
Sample Type: **COMP** Sample Matrix: **Liquid**

SAMPLE COLLECTED ☒ Yes ☐ No If No: ☐ No Discharge ☐ Quantity Not Sufficient
☐ Company Closed ☐ Equipment Failure: _____

COMPOSITE TIME/DATE:	SAMPLE DETAILS:	Temp:	GRAB TIME/DATE:	FIELD TESTS:
Begin: 8:00	Split Sample: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5.6	Time: _____	pH: _____
End: 8:00	# of Bottles: 1 2 3 4 5		Date: 2/16/24	<input type="checkbox"/> Paper, Lot # _____
Begin Date: 02/15/24	Sample Volume: 800 ml		TRC _____, Lot #84032C	<input type="checkbox"/> Meter, S/N _____
End Date: 02/16/24	Sample Interval: Flow min.		Temperature _____ °C, S/N _____	

Autosampler Secured/Locked? ☒ Yes ☐ No ☐ NA Sampler (Print): **JOSEPH FAMECC**

Comments: _____

* Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
<input checked="" type="checkbox"/> 5341632-002	Carbaryl (EPA 632); Diuron (EPA 632)		1 L Amber Glass, PTFE lined cap	Cool <6°C	2
<input checked="" type="checkbox"/> 5341632-003	Herbicides (EPA 615 or SM 6640B)		1 L Amber Glass, PTFE lined cap	Cool <6°C	2
LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: _____ COH Wastewater Lab ☒ City Contract Lab: Eurofins Xenco

Seals Intact: ☒ Yes ☐ No 568 IR Thermometer S/N # 27910254 _____ S/N # 29650075 _____ Temp _____ °C Initial _____
pH Strip Manufacturer: _____ Lot #: _____ Initial: _____

Relinquished By: **[Signature]** Date: **02/16/24** Time: **13:54**

Received By: **[Signature]** Date: **2/16/24** Time: **13:54**

Relinquished By: _____ Date: _____/_____/____ Time: _____

Received By: _____ Date: _____/_____/____ Time: _____

Relinquished By: _____ Received By: _____ Date: _____/_____/____ Time: _____

* Delivered to Lab if Box is Checked

Client Sample Results

Client: City of Houston
Project/Site: 5341632 Upper Brays Regional Effluent

Job ID: 860-68181-1
SDG: 5073_2

Client Sample ID: 5341632-002

Lab Sample ID: 860-68181-1

Date Collected: 02/16/24 08:00

Matrix: Water

Date Received: 02/16/24 14:25

Method: EPA-01 632 - Carbamate and Urea Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	<1.85		5.00	1.85	ug/L		02/19/24 14:10	02/21/24 13:43	1
Diuron	<0.0514		0.0900	0.0514	ug/L		02/19/24 14:10	02/21/24 13:43	1

Client Sample ID: 5341632-003

Lab Sample ID: 860-68181-2

Date Collected: 02/16/24 08:00

Matrix: Water

Date Received: 02/16/24 14:25

Method: EPA-01 615 - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.0000511		0.000190	0.0000511	mg/L		02/17/24 07:16	02/20/24 18:39	1
2,4,5-TP	<0.0000400		0.000190	0.0000400	mg/L		02/17/24 07:16	02/20/24 18:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	172	S1+	45 - 150				02/17/24 07:16	02/20/24 18:39	1

Attachment 10

Facility Operators

Technical Report 1.0, Section 8

TPDES Permit Number 10495-116

Upper Brays

Facility Operations Chain-of-Command

		License Class	License Number	Expiration
Deputy Assistant Director:	Arturo Carillo			
Operations Manager:	LeAndrea Scott	A	WW0012577	8/21/2024
Assistant Operations Manager:	Damien Derousselle	A	WW0030514	4/12/2027
Operations Section Chief:				
Plant Operator Supervisor:	Lashandra Hall	B	WW0062714	4/17/2025
Tech II:				
Tech I:	Demetrian Morris	B	WW0074559	2/9/2027

Attachment 11

WET Test Reports

Worksheet 5.0, Section 1

Worksheet 5.0, Section 3

Summary of WET Tests

Upper Brays

10495-116

TX0088153

Test Initiation Date	Species	Lethal Endpoint	Sublethal Endpoint
10/29/2019	<i>Ceriodaphnia dubia</i>	>83	>83
10/29/2019	<i>Pimephales promelas</i>	>83	>83
1/14/2020	<i>Ceriodaphnia dubia</i>	>100	>100
1/14/2020	<i>Pimephales promelas</i>	>100	>100
4/14/2020	<i>Ceriodaphnia dubia</i>	>100	>100
4/14/2020	<i>Pimephales promelas</i>	>100	>100
7/7/2020	<i>Ceriodaphnia dubia</i>	>100	>100
7/7/2020	<i>Pimephales promelas</i>	>100	>100
10/6/2020	<i>Ceriodaphnia dubia</i>	>100	>100
10/6/2020	<i>Pimephales promelas</i>	>100	>100
1/5/2021	<i>Ceriodaphnia dubia</i>	>100	>100
1/5/2021	<i>Pimephales promelas</i>	>100	>100
4/13/2021	<i>Ceriodaphnia dubia</i>	>100	>100
4/13/2021	<i>Pimephales promelas</i>	>100	>100
7/13/2021	<i>Ceriodaphnia dubia</i>	>100	>100
7/13/2021	<i>Pimephales promelas</i>	>100	>100
10/5/2021	<i>Ceriodaphnia dubia</i>	>100	>100
10/5/2021	<i>Pimephales promelas</i>	>100	>100
1/11/2022	<i>Ceriodaphnia dubia</i>	>100	>100
1/11/2022	<i>Pimephales promelas</i>	>100	>100
4/12/2022	<i>Ceriodaphnia dubia</i>	>100	>100
4/12/2022	<i>Pimephales promelas</i>	>100	>100
7/26/2022	<i>Ceriodaphnia dubia</i>	>100	>100
7/26/2022	<i>Pimephales promelas</i>	>100	>100
10/4/2022	<i>Ceriodaphnia dubia</i>	>100	>100
10/4/2022	<i>Pimephales promelas</i>	>100	>100
1/10/2023	<i>Ceriodaphnia dubia</i>	>100	>100
1/10/2023	<i>Pimephales promelas</i>	>100	>100
4/4/2023	<i>Ceriodaphnia dubia</i>	>100	>100
4/4/2023	<i>Pimephales promelas</i>	>100	>100

Test Initiation Date	Species	Lethal Endpoint	Sublethal Endpoint
7/11/2023	<i>Ceriodaphnia dubia</i>	>100	>100
7/11/2023	<i>Pimephales promelas</i>	>100	>100
10/18/2023	<i>Ceriodaphnia dubia</i>	>100	>100
10/18/2023	<i>Pimephales promelas</i>	>100	>100
1/9/2024	<i>Ceriodaphnia dubia</i>	>100	>100
1/9/2024	<i>Pimephales promelas</i>	>100	>100

36

Attachment 12

Effluent Parameters Above the MAL

Worksheet 6.0, Section 2.C.

Attachment 12

Table 6.0(1) - Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
Aluminum	54.4	2.5	ug/L	2/15/2024
Arsenic	1.9	0.5	ug/L	2/15/2024
Barium	79.0	3	ug/L	2/15/2024
Copper	9.46	2	ug/L	2/15/2024
Nickel	2.76	2	ug/L	2/15/2024
Zinc	55.2	5	ug/L	2/15/2024
Bromodichloromethane	16.2	10	ug/L	2/15/2024
Chloroform	41.2	10	ug/L	2/15/2024
Total Trihalomethane	62.5	10	ug/L	2/15/2024
Nitrate-Nitrogen	26,000	100	ug/L	2/15/2024

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010495116

Applicant: City of Houston

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): Randall V. Macchi

Signatory title: Chief Operating Officer, Houston Public Works

Signature: _____

(Use blue ink)

Date: 5-6-24

Subscribed and Sworn to before me by the said Randall V. Macchi

on this 6th

day of May

, 20 24.

My commission expires on the 9th

day of March

, 20 27.

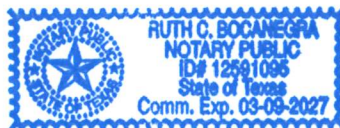
Ruth C. Bocanegra

Notary Public

[SEAL]

Harris

County, Texas



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

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

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

CERTIFICATION:

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

Printed Name: Randall V. Macchi

Title: Chief Operating Officer, Houston Public Works

Signature: _____

Date: 5-6-24


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ0010495116			

SECTION IV: Preparer Information

40. Name:	Heather Maloney			41. Title:	Environmental Investigator V
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(832) 395-5756		(832) 395-5838	heather.maloney@houstontx.gov		

SECTION V: Authorized Signature

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

Company:	City of Houston, Houston Public Works		Job Title:	Chief Operating Officer, Houston Public Works	
Name (In Print):	Randall V. Macchi			Phone:	(832) 395- 2936
Signature:				Date:	5-6-24

Candice Calhoun

From: John Hearn
Sent: Wednesday, April 30, 2025 8:21 AM
To: Candice Calhoun
Subject: FW: WQ0010495116 City of Houston
Attachments: UB_Section4_2024 Admin Rpt rev1.pdf; wq0010495116-contact-routing-sheets.docx

Good morning Candice,

Please see the admin page for the updated application contact. I have also attached the old contact routing sheet. Please let me know if you need anything else for this one.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Wednesday, April 30, 2025 8:02 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

Good morning John,

Please see attached.

Thank you,
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Tuesday, April 29, 2025 3:51 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: FW: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good afternoon Heather,

Thank you for the comments on the draft permit package. In order to change the contact, we will need the below items mentioned in Candice's email. Please provide them ASAP via email, and I will get those changes into the draft.

Thanks!
John

The only thing I would need is the updated administrative contact section (section 4) of the admin report, and that should be all for me. Once I receive that, I can update PARIS, the application-updates file, as well as the contact/routing sheet.

Regards,



Candice Courville

License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental
Quality
512-239-4312
candice.calhoun@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey

From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Tuesday, April 29, 2025 3:44 PM
To: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Subject: FW: WQ0010495116 City of Houston

Good afternoon Candice,

I saw you were the admin reviewer for this one. The applicant is wanting to change the technical contact for this one (Please see point 1. below). Do you need anything from the applicant at this time to make this change?

I think I will also need a new contact sheet for this one now.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Thursday, April 24, 2025 8:30 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

Good morning John,

We have received the draft permit dated April 16, 2025 and a second version of the draft with WET revisions on April 23, 2025. In compliance with the response deadline of April 24, 2025, please accept the following comments.

1. Draft NAPD, contact name/number
 - a. There have been personnel changes since the application was submitted. Please update the contact to Ms. Heather Maloney, Division Manager, at 832-395-5756.
2. Fact Sheet, Item 3.
 - a. Latitude should be 29.716756 N.
3. Fact Sheet, Item 8.C.(5)(a) & Draft Permit, Biomonitoring Requirements, Chronic Biomonitoring Requirements: Freshwater
 - a. The fact sheet indicates that both species are eligible for testing frequency reductions. However, this provision does not appear in the draft permit.

Thank you,
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Sent: Wednesday, April 23, 2025 2:35 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Subject: FW: WQ0010495116 City of Houston

FYI

Thank You,

Walid Samarneh, P. E.
Managing Engineer – Regulatory Compliance
City of Houston | Houston Public Works |
(832) 395-5771 (O) | (713) 501-2782 (C) |

From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Wednesday, April 23, 2025 10:57 AM
To: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Hello Walid,

The dilution series and second page has been revised after comments from the biomonitoring team. Please review the attached revisions and reply to this email with comments/approval and the translated NAPD ASAP, but no later than, **Thursday, April 24, 2025, so that the permitting process can proceed in a timely manner.**

Please let me know if you have any questions.

Thanks,
John

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>
Sent: Thursday, April 17, 2025 4:23 PM
To: walid.samarneh@houstontx.gov
Cc: John Hearn <John.Hearn@tceq.texas.gov>
Subject: WQ0010495116 City of Houston

To whom it may concern,

Attached for your review, is the letter, DRAFT permit, NAPD, and statement of basis/technical summary, for Permit WQ0010495116 City of Houston.

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

Please note, a translated copy of the NAPD in the alternative language must be submitted with your comments on the draft permit. If a translated NAPD is not received, the draft permit cannot be filed with the Office of the Chief Clerk. For notice templates in Spanish, please visit: https://www.tceq.texas.gov/permitting/wastewater/review/napd/wqspanish_napd.html

Please submit any **comments and/or approval** no later than, **Thursday, April 24, 2025**. If the comments and/ or approval are not received by the given deadline, it may cause significant delays in the permit process. Please contact John Hearn with your comments and/ or approval to: John.Hearn@tceq.texas.gov .

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)
Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wilford@tceq.texas.gov

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

CN: Click to enter text.

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

Prefix: Click to enter text.

Last Name, First Name: Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

Provide a brief description of the need for a co-permittee: Click to enter text.

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. **Attachment 2**

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: Ms.

Last Name, First Name: Maloney, Heather

Title: Division Manager

Credential: N/A

Organization Name: City of Houston

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-5756

E-mail Address: heather.maloney@houstontx.gov

Check one or both: ☒ Administrative Contact ☒ Technical Contact

N/A B. Prefix: Click to enter text.

Last Name, First Name: Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

Organization Name: Click to enter text.

Mailing Address: Click to enter text.

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

Phone No.: Click to enter text.

E-mail Address: Click to enter text.

Check one or both: ☐ Administrative 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: Ms.

Last Name, First Name: Haddock, Carol

Title: Director, Houston Public Works

Credential: P.E.

Organization Name: City of Houston

Mailing Address: 10500 Bellaire Blvd

City, State, Zip Code: Houston, Texas 77072

Phone No.: 832-395-2500

E-mail Address: PublicWorks@houstontx.gov

Candice Calhoun

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Wednesday, May 29, 2024 9:13 AM
To: Candice Calhoun
Cc: Samarneh, Walid - HPW; Sanchez, Jose F. - HPW
Subject: RE: Application to Renew Permit No. WQ0010495116 - City of Houston

Follow Up Flag: Follow up
Flag Status: Completed

Good morning Candice,

The City of Houston Wastewater Operations Laboratory building mailing address is 10500 Bellaire Boulevard, Houston 77072. Entering this address into Google Maps returns the correct location. Here are the map results and street view of the address search. The City building shares a driveway with an old Halliburton facility. The laboratory building is accessed by taking the driveway to the left.

Regulatory Compliance - WW - x | Pretreatment and Industrial Wa x | 10500 Bellaire Blvd - Google Maps

google.com/maps/place/10500+Bellaire+Blvd,+Houston,+TX+77072/@29.7055598,-95.567

Kronos Workforce C... Klir HITS Citrix Workspace CDX Home | Central... Enforcement and C...

10500 Bellaire Blvd

Restaurants Hotels

10500 Bellaire Blvd

Directions Save Nearby Send to phone Share

10500 Bellaire Blvd, Houston, TX 77072

PC4M+JF Alief, Houston, TX

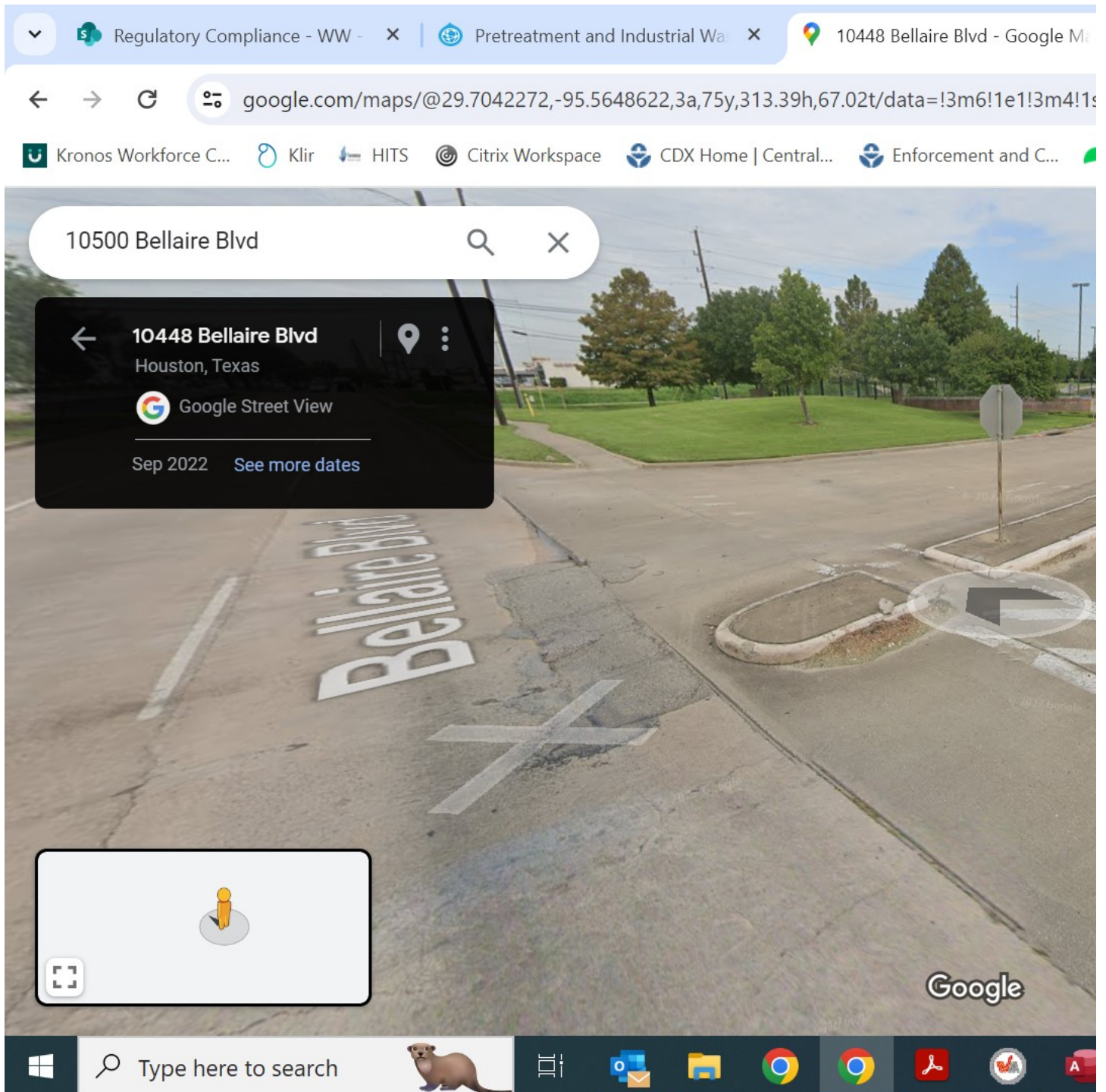
Suggest an edit on 10500 Bellaire Blvd

Add a missing place

10500 Bellaire...

Windows Type here to search

Taskbar icons: File Explorer, Google Chrome, Adobe Reader, Microsoft Word, Outlook



The Wastewater Operations Laboratory houses the Laboratory, Permitting, and Industrial Pretreatment Groups. This link shows the address: <https://www.houstonpublicworks.org/pretreatment-and-industrial-wastewater-service>

This public viewing location has been used for all City of Houston wastewater permit applications for facilities in Harris County.

Thank you,
Heather

Heather Maloney

Environmental Investigator V, Houston Public Works
832-395-5756



From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Wednesday, May 29, 2024 8:46 AM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Sanchez, Jose F. - HPW <Jose.Sanchez2@houstontx.gov>
Subject: RE: Application to Renew Permit No. WQ0010495116 - City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good morning Ms. Maloney,

Thank you for your response. The information provided, for the authorization type for the permit and items 2 and 3, of the NOD, are sufficient. However, with the information provided, I am still not able to verify the public viewing location name and address. Please, either provide a snip-it showing the building name, address, and business hours, or provide a new public viewing location name and address.

Thank you,



Candice Calhoun

Texas Commission on Environmental
Quality
Water Quality Division
512-239-4312
candice.calhoun@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Tuesday, May 28, 2024 2:48 PM
To: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Sanchez, Jose F. - HPW <Jose.Sanchez2@houstontx.gov>
Subject: RE: Application to Renew Permit No. WQ0010495116 - City of Houston

Good afternoon Candice,

Please accept the attached response regarding the administrative review of the Upper Brays permit application.

Thank you,
Heather

Heather Maloney

Environmental Investigator V, Houston Public Works
832-395-5756



From: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Sent: Monday, May 20, 2024 2:09 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Sanchez, Jose F. - HPW <Jose.Sanchez2@houstontx.gov>
Subject: FW: Application to Renew Permit No. WQ0010495116 - City of Houston
Importance: High

FYI

Thank You,

Walid Samarneh, P. E.

Managing Engineer – Regulatory Compliance
City of Houston | Houston Public Works |
(832) 395-5771 (O) | (713) 501-2782 (C) |

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Monday, May 20, 2024 1:43 PM
To: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Subject: Application to Renew Permit No. WQ0010495116 - City of Houston
Importance: High

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good afternoon Mr. Samarneh,

The attached Notice of Deficiency (NOD) letter dated May 20, 2024, requests additional information needed to declare the application administratively complete. Please send complete response by June 3, 2024.

Please let me know if you have any questions.

Regards,



Candice Calhoun

Texas Commission on Environmental Quality
Water Quality Division
512-239-4312
candice.calhoun@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

Candice Calhoun

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Tuesday, May 28, 2024 2:48 PM
To: Candice Calhoun
Cc: Samarneh, Walid - HPW; Sanchez, Jose F. - HPW
Subject: RE: Application to Renew Permit No. WQ0010495116 - City of Houston
Attachments: UB_NODResponse.pdf; UB_SpanishNORI.docx

Follow Up Flag: Follow up
Flag Status: Completed

Good afternoon Candice,

Please accept the attached response regarding the administrative review of the Upper Brays permit application.

Thank you,
Heather

Heather Maloney

Environmental Investigator V, Houston Public Works
832-395-5756



From: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Sent: Monday, May 20, 2024 2:09 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Sanchez, Jose F. - HPW <Jose.Sanchez2@houstontx.gov>
Subject: FW: Application to Renew Permit No. WQ0010495116 - City of Houston
Importance: High

FYI

Thank You,

Walid Samarneh, P. E.

Managing Engineer – Regulatory Compliance
City of Houston | Houston Public Works |
(832) 395-5771 (O) | (713) 501-2782 (C) |

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Monday, May 20, 2024 1:43 PM
To: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Subject: Application to Renew Permit No. WQ0010495116 - City of Houston
Importance: High

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good afternoon Mr. Samarneh,

The attached Notice of Deficiency (NOD) letter dated May 20, 2024, requests additional information needed to declare the application administratively complete. Please send complete response by June 3, 2024.

Please let me know if you have any questions.

Regards,



Candice Calhoun

Texas Commission on Environmental Quality

Water Quality Division

512-239-4312

candice.calhoun@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey



May 30, 2024

Candice Calhoun
Applications Review and Processing Team (MC 148)
Water Quality Division, Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

Subject: Upper Brays Wastewater Treatment Facility
Application to Renew TCEQ Permit Number: WQ0010495116, CN600128995, RN101607174
Notice of Deficiency Letter dated May 20, 2024

Dear Ms. Calhoun,

A Notice of Deficiency letter outlining items that must be addressed before the above-referenced application can be declared administratively complete was received on May 20, 2024. Please accept the following responses.

1. Administrative Report 1.0, Section 2, item A.
 - a. The authorization type is "Publicly-Owned Domestic Wastewater."
2. Administrative Report 1.0, Section 8, item D.
 - a. The location and address listed in the application is the City of Houston's Wastewater Laboratory. The building is open to the public during normal business hours.
3. Please make the following revision to the portion of the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI).
 - a. "...at a volume not to exceed **an annual** average flow of..."
4. Spanish NORI is attached with the above correction.

Please contact me or Heather Maloney at 832-395-5756 or heather.maloney@houstontx.gov with any questions.

Sincerely,

Walid Samarneh, P.E.
Managing Engineer
City of Houston, Houston Public Works

Attachment(s): Spanish NORI

W:\Facility Records\UpperBrays116\Permits\Applications\2024Renewal\AdminReview\UB_NODResponse.docx

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 RENOVACION

PERMISO NO. WQ0010495116

SOLICITUD. La Ciudad de Houston, 10500 Bellaire Boulevard, Houston, Texas 77072, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0010495116 (EPA I.D. No. TX0088153) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio anual de 18,000,000 galones por día. La facilidad está ubicada 13525 West Houston Center Boulevard, en el Condado de Harris, Texas 77082. La ruta de descarga es del sitio de la planta al pantano Brays Bayou; de allí al Canal para buques de Houston/la marea del pantano Buffalo Bayou. La TCEQ recibió esta solicitud en Mayo 10, 2024. La solicitud para el permiso está disponible para leerla y copiarla en la Ciudad de Houston, Trabajos Públicos de Houston, Operaciones de Wastewater edificio, biblioteca, 10500 Bellaire Boulevard, Houston, Condado de Harris, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.590833,29.716944&level=18>

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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

INFORMACIÓN DISPONIBLE ONLINE. Para más detalles sobre el estado de la aplicación, visite la base de datos integrada del Comisario al www.tceq.texas.gov/goto/cid. Buscar en la base de datos usando el número de permiso para esta aplicación, que se puede encontrar al inicio 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 información adicional del La Ciudad de Houston a la dirección indicada arriba o llamando a Sr. Walid Samarneh, P.E., Ingeniero Gerente, al (832) 395-5771.

Fecha de emission:

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (b)(9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403) and the approved City of Houston POTW pretreatment program submitted by the permittee. The pretreatment program was approved on **November 27, 1984**, and modified on **February 26, 1993, March 11, 2020** (nonsubstantial Streamlining Rule), and **June 14, 2021**.

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

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

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

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;
- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and

- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
 - e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).
 - f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
 - g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
 - h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.
 - 3. The permittee shall prepare annually a list of IUs which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS", SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **November** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

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

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

- requirements under 40 CFR §§ 403.12(e)(1) and (3);
 - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
 - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
- (3) Control mechanism status.
- Indicate whether the IU has an effective individual or general control mechanism, and the date such document was last issued, reissued, or modified;
 - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
 - Include the type of general control mechanisms; and
 - Report all NSCIU annual evaluations performed, as applicable.
- (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
- Total number of inspections performed; and
 - Total number of sampling events conducted.
- (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
- Compliant (C) - no violations during the pretreatment year reporting period;
 - Non-compliant (NC) - one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
 - Significant Noncompliance (SNC) - in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.
- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, upset, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee
- d. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of significantly noncompliant IUs, giving the name of the newspaper and the date the list was published.
- e. The information required by this section including the information on the attached tables must be submitted. The permittee may submit the information in tabular form using the example table format provided. Please attach on a separate sheet those explanations to document various pretreatment activities, including IU permits that have expired, BMP violations, and required sampling events not conducted by the permittee as required.
- f. A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority.

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

4. The permittee shall provide adequate written notification to the Executive Director care of the Pretreatment Team (MC148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if the indirect discharger was directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

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

Revised March 2022

TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List

Reporting month/year: _____, _____ to _____, _____

TPDES Permit No.: _____ Permittee: _____ Treatment Plant: _____

PRETREATMENT PROGRAM STATUS REPORT UPDATED INDUSTRIAL USERS ¹ LIST																
Industrial User Name	SIC or NAICS Code	CIU ²	CONTROL MECHANISM				New User ³ (Y or N)	Times Inspected by the CA	Times Sampled by the CA	COMPLIANCE STATUS During the Pretreatment Year Reporting Period ⁴ (C = Compliant, NC = Noncompliant, SNC= Significant Noncompliance)						
			Y/N or NR ⁵	IND or GEN or NR	Last Action ⁶	TBLLs or TBLLs only ⁷				REPORTS				NSCIU Certifications	Effluent Limits	Narrative Standards
										BMR	90-Day	Semi- Annual	Self- Monitoring ⁸			

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

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

Reporting month/year: _____, ____ to _____, ____

TPDES Permit No: _____ **Permittee:** _____ **Treatment Plant:** _____

INDUSTRIAL USER INVENTORY MODIFICATIONS					
FACILITY NAME, ADDRESS AND CONTACT PERSON	ADD, CHANGE, DELETE (Including categorical reclassification to NSCIU or MTCIU)	IF DELETION: Reason For Deletion	IF ADDITION OR SIGNIFICANT CHANGE:		
			PROCESS DESCRIPTION	POLLUTANTS (Including any sampling waiver given for each pollutant not present)	FLOW RATE ⁹ (In gpd) R = Regulated U = Unregulated T = Total

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

TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken

Reporting month/year: _____, _____ to _____, _____

TPDES Permit No: _____ Permittee: _____ Treatment Plant: _____

Overall SNC ____% SNC ¹⁰ based on: Effluent Violations ____%

Reporting Violations ____% Narrative Standard Violations ____%

Noncompliant Industrial Users - Enforcement Actions Taken														
Industrial User Name	Nature of Violation ¹¹				Number of Actions Taken					Penalties Collected (Do not Include Surcharge)	Compliance Schedule			Comments
	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	NOV	A.O.	Civil	Criminal	Other		Y or N	Date Issued	Date Due	Current Status Returned to Compliance: (Y or N)

- 10 # %
 — — Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)
 — — Reporting Requirements [WENDB-PSNC]
 — — Narrative Standards

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

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

Date: June 4, 2024

To: Municipal Team
Thru: Colleen Cook, Pretreatment Team Leader
From: Bridget Malone, Pretreatment Coordinator
Subject: Pretreatment program option for the TPDES Permit No. WQ0010495116, City of Houston – Upper Brays WWTF summary sheet

I have reviewed the above referenced permit and have placed the following standard and any additional language in Water Quality Division > Documents > 1 Application Record > WQ0010495116 > 2024 > Permit > 10495116-PRETpermit

[Permit](#)

This memo is placed in Water Quality Division > Documents > 1 Application Record > WQ0010495116 > 2024 > Permit > 10495116-PRETmemo.

[Permit](#)

Option 4- General Pretreatment language for POTWs without *regulated* industrial users on the collection system, but with an approved Pretreatment Program.

Within this standard language, the Pretreatment Program has incorporated additional pretreatment language requirements. Please incorporate the following language for permittee's FACT SHEET, if applicable, under:

1. INDUSTRIAL WASTE CONTRIBUTION

The City of Houston – Upper Brays WWTF does not appear to receive significant industrial wastewater contributions.

2. PRETREATMENT REQUIREMENTS

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

The permittee has a pretreatment program which was approved by the EPA on POTW pretreatment program submitted by the permittee. The pretreatment program was approved on **November 27, 1984**, and modified on **February 26, 1993, March 11, 2020** (nonsubstantial Streamlining Rule), and **June 14, 2021**. This permit has appropriate

pretreatment language for a facility of this size and complexity. The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which, during the preceding twelve months, were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of **November** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

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

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

3. SUMMARY OF CHANGES FROM EXISTING PERMIT

The pretreatment language has been updated from the current permit. The pretreatment requirements will continue until permit expiration. Please see specific details in the Pretreatment Requirements Section of the fact sheet.

John Hearn

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Thursday, May 29, 2025 3:24 PM
To: John Hearn
Cc: Fragassi, Arielle - HPW
Subject: RE: WQ0010495116 City of Houston
Attachments: UB_NAPD_Spanish1.docx; UB_NAPD.docx

Hello John,

The notice looks good. Please see attached for the Spanish translation.

Thank you!
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Thursday, May 29, 2025 2:56 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good afternoon Heather,

Please see the attached revised notice with the technical contact updated to Walid Samarneh. Please review and respond with comments or approval ASAP.

Also, since this notice is now using the same contact as the NORI, a combined notice will not be needed. Please revise the attached Spanish Notice you submitted, with the updated format and technical contact and return to me.

Please let me know if you have any questions.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Tuesday, May 27, 2025 9:22 AM
To: John Hearn <John.Hearn@tceq.texas.gov>

Cc: Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>

Subject: RE: WQ0010495116 City of Houston

No rush. Thank you for the update!

Heather Maloney

Division Manager

Regulatory Compliance | Houston Water

(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>

Sent: Tuesday, May 27, 2025 9:11 AM

To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>

Cc: Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>

Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good morning Heather,

Yes, You will have to approve the revised NAPD once I draft it, then I will move it down to OCC. At this time, I need to get approval from legal about doing a combined notice as the technical contact is changing.

I expect to send this over to you by tomorrow at the latest.

Thanks,

John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>

Sent: Tuesday, May 27, 2025 9:07 AM

To: John Hearn <John.Hearn@tceq.texas.gov>

Cc: Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>

Subject: RE: WQ0010495116 City of Houston

Hi John,

Checking on this. Will we get a revised copy? Or should we just update the version we have?

Thank you,

Heather

Heather Maloney

Division Manager

Regulatory Compliance | Houston Water

(o) 832-395-5756



From: Maloney, Heather - HPW
Sent: Friday, May 23, 2025 7:03 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houston.tx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houston.tx.gov>
Subject: RE: WQ0010495116 City of Houston

Yes, please! Thanks for checking!

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Thursday, May 22, 2025 2:01 PM
To: Maloney, Heather - HPW <Heather.Maloney@houston.tx.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houston.tx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houston.tx.gov>
Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good afternoon Heather,

I saw your request to change the technical contact for WQ0010495076. Will you also want to change the NAPD contact for this permit application? At this time, the tech contact is for Ms. Heather Maloney.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houston.tx.gov>
Sent: Wednesday, May 14, 2025 3:02 PM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houston.tx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houston.tx.gov>
Subject: RE: WQ0010495116 City of Houston

Good afternoon John,

The City accepts the third version of this draft permit. See attached for reference.

Thank you,
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Tuesday, May 13, 2025 3:49 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good afternoon Heather,

Thank you for the translated notice and comments. Please see the attached revised draft. I have changed the fact sheet language (page 11), and I have updated the control mean survival percentage (It should be 80% as you mentioned, 80% is the standard for chronic testing for all testing).

Please review the revised draft and tech summary, and provide either further comments or approval of the draft ASAP.

Please let me know if you have any questions.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Tuesday, May 6, 2025 8:07 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

Hello John,

I have one comment and a question. The Spanish combined NORI/NAPD is attached.

First, the comment:

- Fact Sheet, page 11, Item 8.C.(5)(a) Reasonable Potential (RP) Determination: indicates the sublethal WET limits of 70% are retained from the existing permit. However, those limits have been updated to 78%.

And the question:

- Draft Permit, page 44, Item 2.a.1) requires a control mean survival of 90% or greater. The previous permit required control mean survival of 70% or greater, and a couple recently-issued (3/2024 & 3/2025) permits

require a control mean survival of 80% or greater. Why is there inconsistency in these requirements? All permits are for freshwater species.

Thank you!
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Monday, May 5, 2025 10:07 AM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good morning Heather,

I have made all of the revisions you requested. Please review the attached draft notice, tech summary, and permit attached, and respond with either further comments or approval ASAP. I will also need a Spanish translation of the attached notice before I can file this one with the OCC.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Thursday, April 24, 2025 8:30 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

Good morning John,

We have received the draft permit dated April 16, 2025 and a second version of the draft with WET revisions on April 23, 2025. In compliance with the response deadline of April 24, 2025, please accept the following comments.

1. Draft NAPD, contact name/number
 - a. There have been personnel changes since the application was submitted. Please update the contact to Ms. Heather Maloney, Division Manager, at 832-395-5756.
2. Fact Sheet, Item 3.
 - a. Latitude should be 29.716756 N.

3. Fact Sheet, Item 8.C.(5)(a) & Draft Permit, Biomonitoring Requirements, Chronic Biomonitoring Requirements: Freshwater
 - a. The fact sheet indicates that both species are eligible for testing frequency reductions. However, this provision does not appear in the draft permit.

Thank you,
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Sent: Wednesday, April 23, 2025 2:35 PM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Subject: FW: WQ0010495116 City of Houston

FYI

Thank You,

Walid Samarneh, P. E.
Managing Engineer – Regulatory Compliance
City of Houston | Houston Public Works |
(832) 395-5771 (O) | (713) 501-2782 (C) |

From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Wednesday, April 23, 2025 10:57 AM
To: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Hello Walid,

The dilution series and second page has been revised after comments from the biomonitoring team. Please review the attached revisions and reply to this email with comments/approval and the translated NAPD ASAP, but no later than, **Thursday, April 24, 2025, so that the permitting process can proceed in a timely manner.**

Please let me know if you have any questions.

Thanks,
John

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>
Sent: Thursday, April 17, 2025 4:23 PM

To: valid.samarneh@houstontx.gov
Cc: John Hearn <John.Hearn@tceq.texas.gov>
Subject: WQ0010495116 City of Houston

To whom it may concern,

Attached for your review, is the letter, DRAFT permit, NAPD, and statement of basis/technical summary, for Permit WQ0010495116 City of Houston.

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

Please note, a translated copy of the NAPD in the alternative language must be submitted with your comments on the draft permit. If a translated NAPD is not received, the draft permit cannot be filed with the Office of the Chief Clerk. For notice templates in Spanish, please

visit: https://www.tceq.texas.gov/permitting/wastewater/review/napd/wqspanish_napd.html

Please submit any **comments and/or approval** no later than, **Thursday, April 24, 2025**. If the comments and/ or approval are not received by the given deadline, it may cause significant delays in the permit process. Please contact John Hearn with your comments and/ or approval to: John.Hearn@tceq.texas.gov .

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)
Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wilford@tceq.texas.gov

John Hearn

From: Michael Pfeil
Sent: Monday, April 21, 2025 2:11 PM
To: John Hearn
Subject: FW: ERC FOR 4-24-2025 City of Houston 10495-116
Attachments: 10495-116.docx; 10495-116.TOX both species.IC25.docx; 10495-116.IC25.both species.TOX side page.docx

Follow Up Flag: Follow up
Flag Status: Flagged

John-

Upon reviewing the draft permit for ERC, I find I had miscalculated the critical dilution and dilution series.

Attached please find the supersedes memo and revised language.

Thanks and my apologies.

Mike

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>
Sent: Thursday, April 17, 2025 4:23 PM
Cc: John Hearn <John.Hearn@tceq.texas.gov>
Subject: ERC FOR 4-24-2025

Please see the attached ERC memo, WQA form, and draft permits for ERC 11/9/2023.

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)
Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wilford@tceq.texas.gov

John Hearn

From: Michael Pfeil
Sent: Wednesday, April 23, 2025 10:36 AM
To: John Hearn
Subject: RE: ERC FOR 4-24-2025 City of Houston 10495-116

Yes, John, good catch. Thanks!

Mike

From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Wednesday, April 23, 2025 10:35 AM
To: Michael Pfeil <michael.pfeil@tceq.texas.gov>
Subject: RE: ERC FOR 4-24-2025 City of Houston 10495-116

Good morning Michael,

Thank you for the updates on this one. One question:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Minimum Self-Monitoring Measurement Frequency</u>	
	7-day Minimum	30-day Average		
Sublethal Whole Effluent Toxicity (WET) limit 70% (Parameter 51710) <u>Ceriodaphnia dubia</u> (3-brood chronic IC25 ¹)	78%	78%	1/quarter	(
Sublethal Whole Effluent Toxicity (WET) limit 70% (Parameter 51714) <u>Pimephales promelas</u> (7-day chronic IC25 ¹)	78%	78%	1/quarter	(

¹ The IC25 is defined the inhibition concentration of effluent that would cause a 25% reduction in the specified end

Should the highlighted 70% be 78% as well?

Thanks,
John

From: Michael Pfeil <michael.pfeil@tceq.texas.gov>
Sent: Monday, April 21, 2025 2:11 PM
To: John Hearn <John.Hearn@tceq.texas.gov>
Subject: FW: ERC FOR 4-24-2025 City of Houston 10495-116

John-

Upon reviewing the draft permit for ERC, I find I had miscalculated the critical dilution and dilution series.

Attached please find the superseded memo and revised language.

Thanks and my apologies.

Mike

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>

Sent: Thursday, April 17, 2025 4:23 PM

Cc: John Hearn <John.Hearn@tceq.texas.gov>

Subject: ERC FOR 4-24-2025

Please see the attached ERC memo, WQA form, and draft permits for ERC 11/9/2023.

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)
Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wilford@tceq.texas.gov

John Hearn

From: Michael Pfeil
Sent: Tuesday, May 13, 2025 3:22 PM
To: John Hearn
Subject: FW: WQ0010495116 City of Houston
Attachments: 10495-116.TOX both species.IC25.docx

Here it is.

From: Michael Pfeil
Sent: Thursday, May 8, 2025 11:09 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Subject: RE: WQ0010495116 City of Houston

John-

Not sure what happened but yes, it should be 80%, somehow got changed probably by a search and replace even though there's no 90% in the dilution series. But 80% is the standard for chronic testing for all testing.

Mike

From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Thursday, May 8, 2025 11:00 AM
To: Michael Pfeil <michael.pfeil@tceq.texas.gov>
Subject: RE: WQ0010495116 City of Houston

Good morning Michael,

For the second question the applicant asked:

"Draft Permit, page 44, Item 2.a.1) requires a control mean survival of 90% or greater. The previous permit required control mean survival of 70% or greater, and a couple recently-issued (3/2024 & 3/2025) permits require a control mean survival of 80% or greater. Why is there inconsistency in these requirements? All permits are for freshwater species."

Is the control mean survival percentage based off of segment criteria? That is why different permits receive different percentages right?

Thanks,
John

From: Michael Pfeil <michael.pfeil@tceq.texas.gov>
Sent: Tuesday, May 6, 2025 3:13 PM
To: John Hearn <John.Hearn@tceq.texas.gov>
Subject: RE: WQ0010495116 City of Houston

Oh, and I didn't give them a compliance period since they passed all their tests at the 100% effluent dilution (IC25 >100%).

From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Tuesday, May 6, 2025 2:02 PM
To: Michael Pfeil <michael.pfeil@tceq.texas.gov>
Subject: FW: WQ0010495116 City of Houston

Hello Michael,

What was the reasoning behind changing the WET limit percentage for this renewal? The applicant is questioning it below.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Sent: Tuesday, May 6, 2025 8:07 AM
To: John Hearn <John.Hearn@tceq.texas.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>
Subject: RE: WQ0010495116 City of Houston

Hello John,

I have one comment and a question. The Spanish combined NORI/NAPD is attached.

First, the comment:

- Fact Sheet, page 11, Item 8.C.(5)(a) Reasonable Potential (RP) Determination: indicates the sublethal WET limits of 70% are retained from the existing permit. However, those limits have been updated to 78%.

And the question:

- Draft Permit, page 44, Item 2.a.1) requires a control mean survival of 90% or greater. The previous permit required control mean survival of 70% or greater, and a couple recently-issued (3/2024 & 3/2025) permits require a control mean survival of 80% or greater. Why is there inconsistency in these requirements? All permits are for freshwater species.

Thank you!
Heather

Heather Maloney
Division Manager
Regulatory Compliance | Houston Water
(o) 832-395-5756



From: John Hearn <John.Hearn@tceq.texas.gov>
Sent: Monday, May 5, 2025 10:07 AM
To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>
Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW

<Arielle.Fragassi@houstontx.gov>

Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Good morning Heather,

I have made all of the revisions you requested. Please review the attached draft notice, tech summary, and permit attached, and respond with either further comments or approval ASAP. I will also need a Spanish translation of the attached notice before I can file this one with the OCC.

Thanks,
John

From: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>

Sent: Thursday, April 24, 2025 8:30 AM

To: John Hearn <John.Hearn@tceq.texas.gov>

Cc: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>; Fragassi, Arielle - HPW <Arielle.Fragassi@houstontx.gov>

Subject: RE: WQ0010495116 City of Houston

Good morning John,

We have received the draft permit dated April 16, 2025 and a second version of the draft with WET revisions on April 23, 2025. In compliance with the response deadline of April 24, 2025, please accept the following comments.

1. Draft NAPD, contact name/number
 - a. There have been personnel changes since the application was submitted. Please update the contact to Ms. Heather Maloney, Division Manager, at 832-395-5756.
2. Fact Sheet, Item 3.
 - a. Latitude should be 29.716756 N.
3. Fact Sheet, Item 8.C.(5)(a) & Draft Permit, Biomonitoring Requirements, Chronic Biomonitoring Requirements: Freshwater
 - a. The fact sheet indicates that both species are eligible for testing frequency reductions. However, this provision does not appear in the draft permit.

Thank you,
Heather

Heather Maloney

Division Manager

Regulatory Compliance | Houston Water

(o) 832-395-5756



From: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>

Sent: Wednesday, April 23, 2025 2:35 PM

To: Maloney, Heather - HPW <Heather.Maloney@houstontx.gov>

Subject: FW: WQ0010495116 City of Houston

FYI

Thank You,

Walid Samarneh, P. E.

Managing Engineer – Regulatory Compliance

City of Houston | Houston Public Works |

(832) 395-5771 (O) | (713) 501-2782 (C) |

From: John Hearn <John.Hearn@tceq.texas.gov>

Sent: Wednesday, April 23, 2025 10:57 AM

To: Samarneh, Walid - HPW <Walid.Samarneh@houstontx.gov>

Subject: RE: WQ0010495116 City of Houston

[This message came from outside the City of Houston email system. Please be careful while clicking links, opening attachments, or replying to this email.]

Hello Walid,

The dilution series and second page has been revised after comments from the biomonitoring team. Please review the attached revisions and reply to this email with comments/approval and the translated NAPD ASAP, but no later than, **Thursday, April 24, 2025, so that the permitting process can proceed in a timely manner.**

Please let me know if you have any questions.

Thanks,
John

From: Shemica Wilford <Shemica.Wilford@tceq.texas.gov>

Sent: Thursday, April 17, 2025 4:23 PM

To: walid.samarneh@houstontx.gov

Cc: John Hearn <John.Hearn@tceq.texas.gov>

Subject: WQ0010495116 City of Houston

To whom it may concern,

Attached for your review, is the letter, DRAFT permit, NAPD, and statement of basis/technical summary, for Permit WQ0010495116 City of Houston.

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

Please note, a translated copy of the NAPD in the alternative language must be submitted with your comments on the draft permit. If a translated NAPD is not received, the draft permit cannot be filed with the Office of the Chief Clerk. For notice templates in Spanish, please

visit: https://www.tceq.texas.gov/permitting/wastewater/review/napd/wqspanish_napd.html

Please submit any **comments and/or approval** no later than, **Thursday, April 24, 2025**. If the comments and/ or approval are not received by the given deadline, it may cause significant delays in

the permit process. Please contact John Hearn with your comments and/ or approval to: John.Hearn@tceq.texas.gov .

Thank you,

Shemica Wilford
Customer Information Assistance (CIA)
Water Quality Division
Texas Commission on Environmental Quality (TCEQ)
Shemica.Wilford@tceq.texas.gov

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Deba Dutta, P.E., Team Leader
Municipal Team, Wastewater Permitting Section

Date: 4/16/2025

From: John Hearn, Municipal Permits Team

APPLICANT: City of Houston
PLANT NAME: Upper Brays WWTP
TPDES PERMIT NO: WQ0010495116

EPA ID No: TX0088153

FILE NAME: C:\Users\jhearn\Texas Commission on Environmental Quality\Water Quality Division - Documents\o Division Documents\Wastewater Permitting Section\MUNI\PERMIT FILES\WQ0010495116\Working Folder\WQ0010495116_Draft.docx

Admin Complete Date:	5/10/2024	Pretreatment Memo:	6/4/2024
Standards Memo:	4/16/2025	Assign Date:	8/7/2024
Critical Condition Memo:	7/24/2024	Tech Complete Date:	4/16/2025
Modeling Memo:	8/7/2024	RFI Letter Date:	N/A
Biomonitoring Memo:	8/7/2024	Response Letter Date:	N/A

PERMIT TYPE

☒ Public Domestic
☐ Private Domestic

☒ Discharge (TPDES)
☐ Land Application

☒ Major (> 1 MGD)

PERMIT ACTION

Renewal

PERMIT PACKAGE

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Transmittal letter to applicant
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Transmittal letter to EPA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fact Sheet and ED Preliminary Decision for major TPDES Permit
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Permit Draft
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Biomonitoring Requirements for Major TPDES Permits
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pretreatment Requirements for POTWs
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Authorization to land apply or dispose of Class B Biosolids or sewage sludge on property adjacent to WWTP in draft permit.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Includes appropriate other requirements (including quarterly and annual reporting, soil monitoring, language in notice and fact sheet, attachments.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	EPA REVIEW CHECKLIST
<input checked="" type="checkbox"/>	<input type="checkbox"/>	FACILITY PROCESS FORM for PARIS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	TEXTOX Printout in file
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NOTICE for admin complete on or after 9/1/99
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAPTION (also saved in I:\EVERYONE\wq\CAPTION)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Legislative Notice (SB709) required (saved in I:\WQ\Muni\LEGISLATIVE NOTICE)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	MAJOR/MINOR DETERMINATION if needed
<input type="checkbox"/>	<input checked="" type="checkbox"/>	LOCATED IN THE COASTAL ZONE (if located in coastal zone, include CMP Threshold Sheet)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	SPELLCHECK: DRAFT PERMIT/TECH SUM/SOB/FACT SHEET/NOTICE/LETTER(S)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	SCHEDULE FOR ERC Part A: All major permits and permits in Edwards Aquifer area are scheduled for ERC
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Located in the Edwards Aquifer area:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	COMPLIANCE HISTORY: CN = 8.47 (Satisfactory) and RN = 23.00 (Satisfactory)

- ☐ ☒ ENFORCEMENT ORDER(S)
- ☐ ☒ CHANGES TO THE DRAFT PERMIT based on discussion at ERC

COMMENTS: A renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 18 million gallons per day (MGD). The chlorine monitoring location on page 2 of the existing permit has been updated on page 2 of the draft permit. The critical dilution series has been updated in the draft permit based on standards team's recommendation.

**Request for Comments on Draft Permit
TCEQ – Water Quality Division**

Phone: (512)239-4671

Fax: (512)239-4430

Mailing Address: TCEQ, Water Quality Division, P.O. Box 13087, Austin, TX 78711-3087

TO: Region: **12**

Submitted by: **John Hearn** E-Mail ID: **john.hearn@tceq.texas.gov** Phone: **(512) 239-5239**

Date Request Submitted:

Comments Deadline: Within 7 days

Date Application Received by TCEQ in Austin: **May 10, 2024**

REGIONAL OFFICES: The entity below has submitted an application for the project referenced below in accordance with regulations of the TCEQ. Please return comments ASAP, but no later than the comments deadline, which is 10 days from the submittal date. Permit disposition will proceed after comments are received or after the comments deadline has passed. If no comments are received within this time frame, we will assume you have no comments or objections to the project as proposed. Please return a complete copy of the form (both sides) with your comments.

PROJECT TYPE: **Renewal**

TEAM ASSIGNED: **MUNICIPAL**

APPLICATION TYPE: ☒ **TPDES** ☐ **TLAP**

REGULATED ENTITY NO.: **RN101607174**

PERMIT NO.: **WQ0010495116**

CUSTOMER REFERENCE NO.: **CN600128995**

COMPANY NAME: **City of Houston**

PLANT NAME: **Upper Brays WWTP**

ADDRESS: **10500 Bellaire Boulevard, Houston, Texas 77072**

SEGMENT: **1007**

COUNTY: **Harris**

TECHNICAL CONTACT: **Ms. Heather Maloney**

PHONE: **832-395-5756**

PERMIT CLASSIFICATION: **MAJOR**

COMPLIANCE RATING: **CN = 8.47 (Satisfactory) and RN = 23.00 (Satisfactory)**

SUMMARY OF APPLICATION REQUEST: A renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 18 million gallons per day (MGD).

PERMIT WRITER COMMENTS: The chlorine monitoring location on page 2 of the existing permit has been updated on page 2 of the draft permit. The critical dilution series has been updated in the draft permit based on standards team's recommendation.

RESPONSE TO REQUEST FOR COMMENTS ON DRAFT PERMIT

TO: John Hearn

FROM: Region: 12

Copy of Application Received by your Office: ☐ YES ☐ NO Date Received: _____

COMPANY NAME: City of Houston

PERMIT NO.: WQ0010495116

REGULATED ENTITY NO: RN101607174

Investigator's/Compliance Officer's Name (Please Print): _____

Phone: _____

Comments Deadline (from pg. 1):

Date of Last Site Visit: _____

COMMENTS ON CONDITIONS: (Please mark up the draft special conditions with your comments. Please address applicability and enforceability. List any additional conditions below):

Compliance Determination Conditions: _____

Operational Limitations: _____

General Comments: _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Ms. Heather Maloney
City of Houston
10500 Bellaire Boulevard
Houston, Texas 77072

Re: City of Houston - TPDES Permit No. WQ0010495116, EPA ID No. TX0088153
(CN600128995; RN101607174)

Dear Ms. Maloney:

Enclosed for your review and comment is a copy of a draft permit, Fact Sheet and Executive Director's Preliminary Decision for the above-referenced operation. This draft permit is subject to further staff review and modification; however, we believe it generally includes the terms and conditions that are appropriate to your discharge. **Please read the entire draft carefully as there may be changes from the existing permit and note the following:**

1. The draft permit will be issued to expire **five years from the date of issuance**.
2. The Standard Permit Conditions, Sludge Provisions, Other Requirements, Pretreatment Requirements, and Biomonitoring sections of the draft permit have been updated.
3. *E. coli* bacteria limits have been continued in the draft permit in accordance with the recent amendments to 30 TAC Chapters 309 and 319. The bacteria limits in the draft permit are consistent with the requirements of the TMDL, Project No. 72D, and any subsequent associated Water Quality Management Project updates.
4. The TMDL project *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System* (TMDL Project No.1) has been withdrawn and is no longer applicable.
5. The chlorine monitoring location on page 2 of the existing permit has been updated on page 2 of the draft permit.
6. For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

7. Certain accidental discharges or spills of treated or untreated wastewater from wastewater treatment facilities or collection systems owned or operated by a local government may be reported on a monthly basis in accordance with 30 TAC § 305.132.
8. The draft permit includes all updates based on the 30 TAC § 312 rule change effective April 23, 2020.
9. This application was declared administratively complete on May 10, 2024. Please note, a translated copy of the NAPD in the alternative language must be submitted with your comments on the draft permit. If a translated NAPD is not received, the draft permit cannot be filed with the Office of the Chief Clerk. For notice templates in Spanish, please visit:
https://www.tceq.texas.gov/permitting/wastewater/review/napd/wqspanish_napd.html.

Also enclosed for your review and comment is a copy of the draft second notice, the Notice of Application and Preliminary Decision (NAPD), that was prepared for your application. Please review this notice and provide comments if there are any inaccuracies or any information that is not consistent with your application. Please do not publish the notice at this time; after the draft permit is filed with the Office of the Chief Clerk, you will receive instructions for publishing this notice in a newspaper from the Office of the Chief Clerk. Please note that these instructions will not be mailed if the Office of the Chief Clerk has not received the requested proof that the first notice (Notice of Receipt and Intent to Obtain a Permit) has been published. This could cause delays in the processing of your application and the final issuance of the draft permit. When the NAPD notice is received, please publish promptly and submit proof of publication (affidavit and tearsheet) to the Office of the Chief Clerk. Failure to publish notice and submit proof of publication in a timely manner may result in returning of the application and loss of authorization to operate.

It is your responsibility to submit your comments on the draft permit prior to the deadline that is indicated in the email. Comments can be sent to john.hearn@tceq.texas.gov in place of or in addition to a hard copy.

If you have any comments or questions, please contact me at (512) 239-5239, or if by correspondence, include MC 148 in the letterhead address following my name.

Sincerely,

John Hearn

John Hearn, Permit Coordinator
Municipal Permits Team

Ms. Heather Maloney
Page 3

Wastewater Permitting Section (MC 148)
Water Quality Division
Texas Commission on Environmental Quality

JH/SW

Enclosures

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

Ms. Evelyn Rosborough (6WQ-CA)
U.S. Environmental Protection Agency
Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102

Re: City of Houston
TPDES Draft Permit No. WQ0010495116, TX0088153
(CN600128995; RN101607174)

Dear Ms. Rosborough:

Enclosed is the draft proposed permit, Fact Sheet and Executive Director's Preliminary Decision, and application material for the draft TPDES Permit No. WQ0010495116 as required under the TCEQ/EPA Memorandum of Agreement. Please review and provide any written comments, objections (general or interim) or recommendations with respect to the draft permit within forty-five days from the receipt of this draft permit to me.

If you need additional information or have any questions, please call Mr. John Hearn of my staff by telephone at (512) 239-5239, by e-mail at john.hearn@tceq.texas.gov, by fax at (512) 239-4430 or if by correspondence, include MC 148 in the letterhead address following his name. Thank you for your cooperation in this matter.

Sincerely,

Deba Dutta

Deba Dutta, P.E., Team Leader
Municipal Permits Team
Wastewater Permitting Section
Water Quality Division

DD/JH
Enclosures

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

Date, 2025

Ms. Heather Maloney
City of Houston
10500 Bellaire Boulevard
Houston, Texas 77072

RE: Notice of Preliminary Decision and Draft Permit
Applicant Name: City of Houston
Facility Name: Upper Brays WWTP
Permit No.: WQ0010495116
Customer Reference Number: CN600128995
Regulated Entity Number: RN101607174
Type of Application: Renewal

Dear Ms. Maloney:

The executive director has completed the technical review of the above referenced application, received on May 10, 2024 and has prepared a preliminary decision and draft permit.

You are now required to publish another notice of your proposed activity. To help you meet the requirements associated with this notice, we have included the following items:

- Instructions for Public Notice
- Notice for Newspaper Publication
- Publisher's Affidavits
- Draft Permit
- Executive Director's Preliminary Decision
- Public Notice Verification Form

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

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

1. You must publish the enclosed notice within as soon as possible, but no later than 45 days from the date on the cover letter. **You may be required to publish the**

notice in more than one newspaper, including a newspaper published in an alternative language, to satisfy all of the notice requirements.

2. On or before the date you publish notice, you must place the following items in a public place in the county where the facility is or will be located.
 - (a) a copy of your permit application, including any subsequent revisions;
 - (b) the executive director's preliminary decision as contained in the technical summary and fact sheet; and
 - (c) the draft permit, including any subsequent revisions.

These items must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place until the commission has taken action on the application or the commission refers issues to the State Office of Administrative Hearings.

3. For each publication, submit proof of publication of the notice that shows the publication date and newspaper name to the Office of the Chief Clerk within **30 calendar days** after notice is published in the newspaper.
4. Return the original enclosed Public Notice Verification and the Publisher's Affidavits to the Office of the Chief Clerk within **30 calendar days** after the notice is published in the newspaper.

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

If you have any questions regarding publication requirements, please contact the Office of Legal Services at (512) 239-0600. If you have any questions regarding the content of the notice, please contact the individual in the permitting area assigned to your application.

Sincerely,

Laurie Gharis
Chief Clerk
Office of the Chief Clerk
Texas Commission on Environmental Quality

LG/JH/CIA team member initials

Enclosures

Ms. Heather Maloney, Page 3

Date, 2025

Permit No. WQ0010495116

bcc: TCEQ Region 12, Water Program Manager

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

Date, 2025

Ms. Heather Maloney
City of Houston
10500 Bellaire Boulevard
Houston, Texas 77072

RE: Permit Application
Permit No.: WQ0010495116
City of Houston
Upper Brays WWTP
Houston, Texas 77072, Harris County
Customer Reference Number: CN600128995
Regulated Entity Number: RN101607174

Dear Ms. Maloney:

The Texas Commission on Environmental Quality (TCEQ) has made a preliminary decision on the above-referenced permit applications. In accordance with Title 30 Texas Administrative Code § 39.419(b), you are now required to publish Notice of Application and Preliminary Decision. You must provide a copy of the preliminary decision letter with the draft permit at the public place referenced in the public notice.

If you have any questions, please contact the individual in the permitting area assigned to your application, or write to the TCEQ, Office of Water, Water Quality Division, MC-148, Austin, Texas, 78711-3087.

Sincerely,

Matthew Udenenwu
Section Manager, Wastewater Permitting
Office of Water
Texas Commission on Environmental Quality

MU/JH/CIA team member initials

Enclosures

Ms. Maloney, Page 2

Date, 2025

Permit No. WQ0010495116

cc: TCEQ Region 12, Water Program Manager

ATTACHMENT 1

EPA - REGION 6
NPDES PERMIT CERTIFICATION CHECKLIST

In accordance with the MOA established between the State of Texas and the United States Environmental Protection Agency, Region 6, the Texas Commission on Environmental Quality submits the following draft Texas Pollutant Discharge Elimination System (TPDES) permit for Agency review.

Major ☒

POTW ☒

Private Domestic ☐

Non-POTW ☐

Permittee City of Houston
SIC Code 4952
Regul. Activity Domestic Wastewater Permit
EPA ID No. TX0088153 TPDES Permit No. WQ0010495116
Segment No. 1007 Basin San Jacinto River Basin
Receiving Water Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal

Permit Action: New ☐
Renewal WITH changes ☐
Renewal without changes (permit and WQS) ☒
Major Amendment with renewal ☐
Amendment/Modification WITHOUT renewal, ☐
proceed directly to Question 26 below

Answer the following		Yes	No	N/A
1.	Are there known or potential interstate water issues associated with this permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	Is there known or potential third-party interest/environmental concern regarding this permit action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.	Does this facility discharge to a 303(d) listed waterbody segment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If YES, does the facility discharge any of the pollutant(s) of concern identified in the 303(d) listing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is this permit consistent with the approved WQMP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are discharges continuous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Does the facility discharge or propose to discharge process wastewaters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are discharges directly to a classified waterbody segment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	Does the facility discharge to a water body segment which has a finalized TMDL?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If YES, does the permit implement the TMDL consistent with the WLAs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Does the technical summary/statement of basis document the rationale for the inclusion/omission of permit conditions for each 303(d) listed pollutant of concern or TMDL pollutant?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ATTACHMENT 1
EPA – REGION 6
NPDES PERMIT CERTIFICATION CHECKLIST
Page 2 of 2

Yes No N/A

10.	Has a priority watershed of critical concern been identified by the U.S. Fish and Wildlife Service for this segment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11.	Is there a thermal component to the discharges from this facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12.	Does this permit authorize ammonia discharges > 4.0 mg/l at the edge of the mixing zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.	Does this permit require testing for Whole Effluent Toxicity in accordance with the state's standard practices and implementation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If YES, were there any toxicity failures in the previous three years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.	If this facility has completed and implemented a Toxicity Reduction Evaluation (TRE), has any subsequent toxicity been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15.	Does this permit propose to grant a variance request (<i>WQS, FDF, etc.</i>) or does it incorporate a proposed or final approval of a variance request?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16.	If a POTW is ≥ 5 MGD, does it have an approved Pretreatment Program?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Since the last permit issuance, has the POTW had a new Pretreatment Program approved or a Pretreatment Program modification approved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	Does this permit contain authorization for wet weather-related peak-flow discharges?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19.	Does this permit include a bypass of any treatment unit or authorize overflows in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20.	Does this permit include provisions for effluent trading?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21.	Does this permit contain specific issues on which EPA and the state are not in agreement regarding the permitting approach?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22.	Is this facility subject to a national effluent limitations guideline? Please specify:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23.	Does this permit contain first-time implementation of a new federal guideline, policy, regulation, etc.? Please specify:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24.	Is this a new facility or an expansion of an existing facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25.	Does this permit incorporate any exceptions to the standards or regulations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26.	Is this a permit modification/amendment? Please specify:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Name: John Hearn

Date: April 15, 2025

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (b)(9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403) and the approved City of Houston POTW pretreatment program submitted by the permittee. The pretreatment program was approved on **November 27, 1984**, and modified on **February 26, 1993, March 11, 2020** (nonsubstantial Streamlining Rule), and **June 14, 2021**.

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

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

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

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;
- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and

- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
 - e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).
 - f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
 - g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
 - h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.
 3. The permittee shall prepare annually a list of IUs which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS", SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **November** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

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

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

- requirements under 40 CFR §§ 403.12(e)(1) and (3);
 - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
 - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
- (3) Control mechanism status.
- Indicate whether the IU has an effective individual or general control mechanism, and the date such document was last issued, reissued, or modified;
 - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
 - Include the type of general control mechanisms; and
 - Report all NSCIU annual evaluations performed, as applicable.
- (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
- Total number of inspections performed; and
 - Total number of sampling events conducted.
- (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
- Compliant (C) - no violations during the pretreatment year reporting period;
 - Non-compliant (NC) - one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
 - Significant Noncompliance (SNC) - in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.
- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, upset, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee
- d. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of significantly noncompliant IUs, giving the name of the newspaper and the date the list was published.
- e. The information required by this section including the information on the attached tables must be submitted. The permittee may submit the information in tabular form using the example table format provided. Please attach on a separate sheet those explanations to document various pretreatment activities, including IU permits that have expired, BMP violations, and required sampling events not conducted by the permittee as required.
- f. A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority.

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

4. The permittee shall provide adequate written notification to the Executive Director care of the Pretreatment Team (MC148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if the indirect discharger was directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

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

Revised March 2022

TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List

Reporting month/year: _____, _____ to _____, _____

TPDES Permit No.: _____ Permittee: _____ Treatment Plant: _____

PRETREATMENT PROGRAM STATUS REPORT UPDATED INDUSTRIAL USERS ¹ LIST																
Industrial User Name	SIC or NAICS Code	CIU ²	CONTROL MECHANISM				New User ³ (Y or N)	Times Inspected by the CA	Times Sampled by the CA	COMPLIANCE STATUS During the Pretreatment Year Reporting Period ⁴ (C = Compliant, NC = Noncompliant, SNC= Significant Noncompliance)						
			Y/N or NR ⁵	IND or GEN or NR	Last Action ⁶	TBLLs or TBLLs only ⁷				REPORTS				NSCIU Certifications	Effluent Limits	Narrative Standards
										BMR	90-Day	Semi- Annual	Self- Monitoring ⁸			

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

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

Reporting month/year: _____, ____ to _____, ____

TPDES Permit No: _____ **Permittee:** _____ **Treatment Plant:** _____

INDUSTRIAL USER INVENTORY MODIFICATIONS					
FACILITY NAME, ADDRESS AND CONTACT PERSON	ADD, CHANGE, DELETE (Including categorical reclassification to NSCIU or MTCIU)	IF DELETION: Reason For Deletion	IF ADDITION OR SIGNIFICANT CHANGE:		
			PROCESS DESCRIPTION	POLLUTANTS (Including any sampling waiver given for each pollutant not present)	FLOW RATE ⁹ (In gpd) R = Regulated U = Unregulated T = Total

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

TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken

Reporting month/year: _____, _____ to _____, _____

TPDES Permit No: _____ Permittee: _____ Treatment Plant: _____

Overall SNC ____% SNC ¹⁰ based on: Effluent Violations ____%

Reporting Violations ____% Narrative Standard Violations ____%

Noncompliant Industrial Users - Enforcement Actions Taken														
Industrial User Name	Nature of Violation ¹¹				Number of Actions Taken					Penalties Collected (Do not Include Surcharge)	Compliance Schedule			Comments
	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	NOV	A.O.	Civil	Criminal	Other		Y or N	Date Issued	Date Due	Current Status Returned to Compliance: (Y or N)

- 10 # %
 — — Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)
 — — Reporting Requirements [WENDB-PSNC]
 — — Narrative Standards

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

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

Date: June 4, 2024

To: Municipal Team
Thru: Colleen Cook, Pretreatment Team Leader
From: Bridget Malone, Pretreatment Coordinator
Subject: Pretreatment program option for the TPDES Permit No. WQ0010495116, City of Houston – Upper Brays WWTF summary sheet

I have reviewed the above referenced permit and have placed the following standard and any additional language in Water Quality Division > Documents > 1 Application Record > WQ0010495116 > 2024 > Permit > 10495116-PRETpermit

[Permit](#)

This memo is placed in Water Quality Division > Documents > 1 Application Record > WQ0010495116 > 2024 > Permit > 10495116-PRETmemo.

[Permit](#)

Option 4- General Pretreatment language for POTWs without *regulated* industrial users on the collection system, but with an approved Pretreatment Program.

Within this standard language, the Pretreatment Program has incorporated additional pretreatment language requirements. Please incorporate the following language for permittee's FACT SHEET, if applicable, under:

1. INDUSTRIAL WASTE CONTRIBUTION

The City of Houston – Upper Brays WWTF does not appear to receive significant industrial wastewater contributions.

2. PRETREATMENT REQUIREMENTS

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

The permittee has a pretreatment program which was approved by the EPA on POTW pretreatment program submitted by the permittee. The pretreatment program was approved on **November 27, 1984**, and modified on **February 26, 1993, March 11, 2020** (nonsubstantial Streamlining Rule), and **June 14, 2021**. This permit has appropriate

pretreatment language for a facility of this size and complexity. The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which, during the preceding twelve months, were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of **November** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

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

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

3. SUMMARY OF CHANGES FROM EXISTING PERMIT

The pretreatment language has been updated from the current permit. The pretreatment requirements will continue until permit expiration. Please see specific details in the Pretreatment Requirements Section of the fact sheet.



Compliance History Report

Compliance History Report for CN600128995, RN101607174, Rating Year 2023 which includes Compliance History (CH) components from September 1, 2018, through August 31, 2023.

Customer, Respondent, or Owner/Operator:	CN600128995, City of Houston	Classification:	SATISFACTORY	Rating:	8.47
Regulated Entity:	RN101607174, UPPER BRAYS WWTP	Classification:	SATISFACTORY	Rating:	23.00
Complexity Points:	10	Repeat Violator:	NO		
CH Group:	08 - Sewage Treatment Facilities				
Location:	13525 WEST HOUSTON CENTER BLVD HOUSTON, TX 77082, HARRIS COUNTY				
TCEQ Region:	REGION 12 - HOUSTON				
ID Number(s):					
WASTEWATER PERMIT	WQ0010495116	WASTEWATER EPA ID	TX0088153		
WASTEWATER AUTHORIZATION	R10495116	STORMWATER PERMIT	TXR05FF92		
Compliance History Period:	September 01, 2018 to August 31, 2023	Rating Year:	2023	Rating Date:	09/01/2023
Date Compliance History Report Prepared:	June 03, 2024				
Agency Decision Requiring Compliance History:	Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.				
Component Period Selected:	May 10, 2019 to June 03, 2024				
TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.					
Name:	PT	Phone:	(512) 239-3581		

Site and Owner/Operator History:

- | | |
|--|-----|
| 1) Has the site been in existence and/or operation for the full five year compliance period? | YES |
| 2) Has there been a (known) change in ownership/operator of the site during the compliance period? | NO |

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

- | | | | |
|---|--|------------|---------------------------------------|
| 1 | Effective Date: 04/01/2021 | COURTORDER | (Final Judgement-After Hearing/Trial) |
| | Classification: Major | | |
| | Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)(1) | | |
| | 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Rqmt Prov: Effluent Limitations and Monitoring Requ PERMIT | | |
| | Description: Failed to comply with permitted effluent limitations. | | |
| | Classification: Major | | |
| | Citation: 2D TWC Chapter 26, SubChapter A 26.121(a)(1) | | |
| | 30 TAC Chapter 305, SubChapter F 305.125(1) | | |
| | Rqmt Prov: Permit Conditions No. 2.g PERMIT | | |
| | Description: Failed to prevent an unauthorized discharge of sewage into or adjacent to any water in the state. | | |

See addendum for information regarding federal actions.

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

Item 1	May 17, 2019	(1585626)
Item 2	June 20, 2019	(1585627)
Item 3	September 20, 2019	(1607576)
Item 4	November 18, 2019	(1620237)
Item 5	December 17, 2019	(1627586)
Item 6	January 21, 2020	(1635217)
Item 7	February 18, 2020	(1641832)
Item 9	March 17, 2020	(1648346)
Item 10	April 20, 2020	(1654698)
Item 11	May 15, 2020	(1661264)
Item 12	July 20, 2020	(1674739)
Item 13	August 31, 2020	(1671817)
Item 14	September 16, 2020	(1688087)
Item 15	September 22, 2020	(1681509)
Item 16	November 18, 2020	(1715937)
Item 17	December 18, 2020	(1715938)
Item 18	January 20, 2021	(1715939)
Item 19	February 17, 2021	(1729010)
Item 20	March 15, 2021	(1729011)
Item 21	April 19, 2021	(1729012)
Item 22	May 18, 2021	(1741807)
Item 23	July 16, 2021	(1723574)
Item 24	July 20, 2021	(1752860)
Item 25	August 19, 2021	(1758268)
Item 27	October 19, 2021	(1778055)
Item 28	November 16, 2021	(1784786)
Item 29	March 17, 2022	(1814544)
Item 30	June 17, 2022	(1836259)
Item 31	July 20, 2022	(1843445)
Item 32	September 16, 2022	(1857377)
Item 33	October 18, 2022	(1863732)
Item 34	November 17, 2022	(1870640)
Item 35	December 16, 2022	(1876496)
Item 36	January 20, 2023	(1883308)
Item 37	February 20, 2023	(1891124)
Item 38	March 17, 2023	(1899692)
Item 39	March 28, 2023	(1894565)
Item 40	April 20, 2023	(1906496)
Item 41	May 19, 2023	(1913649)
Item 42	June 20, 2023	(1920258)
Item 43	July 20, 2023	(1927225)
Item 44	August 16, 2023	(1934187)
Item 45	September 19, 2023	(1940360)
Item 46	October 20, 2023	(1947166)
Item 47	November 20, 2023	(1952854)
Item 48	December 05, 2023	(1931083)
Item 49	December 15, 2023	(1962627)
Item 50	January 19, 2024	(1969214)
Item 51	February 19, 2024	(1978280)
Item 52	March 19, 2024	(1984853)
Item 53	March 30, 2024	(1981769)

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A

DMR DATA

WQ0010495116 - CITY OF HOUSTON

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				DAILY AV (mg/L)	DAILY MX (mg/L)	DAILY AV (lb/d)
TX0088153	4/30/2019	001A	BOD, carbonaceous [5 day, 20 C]	3	4	143
TX0088153	5/31/2019	001A	BOD, carbonaceous [5 day, 20 C]	3	4	213
TX0088153	6/30/2019	001A	BOD, carbonaceous [5 day, 20 C]	2	4	192
TX0088153	7/31/2019	001A	BOD, carbonaceous [5 day, 20 C]	2	4	150
TX0088153	8/31/2019	001A	BOD, carbonaceous [5 day, 20 C]	3	4	102
TX0088153	9/30/2019	001A	BOD, carbonaceous [5 day, 20 C]	3	21	229
TX0088153	10/31/2019	001A	BOD, carbonaceous [5 day, 20 C]	2	4	94
TX0088153	11/30/2019	001A	BOD, carbonaceous [5 day, 20 C]	2	3	133
TX0088153	12/31/2019	001A	BOD, carbonaceous [5 day, 20 C]	<2	5	<151
TX0088153	1/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	3	8	206
TX0088153	2/29/2020	001A	BOD, carbonaceous [5 day, 20 C]	<3	4	<172
TX0088153	3/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	3	4	192
TX0088153	4/30/2020	001A	BOD, carbonaceous [5 day, 20 C]	2	3	166
TX0088153	5/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<174
TX0088153	6/30/2020	001A	BOD, carbonaceous [5 day, 20 C]	<2	7	<185
TX0088153	7/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	3	12	253
TX0088153	8/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	3	12	218
TX0088153	9/30/2020	001A	BOD, carbonaceous [5 day, 20 C]	3	10	295
TX0088153	10/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	<2	5	<168
TX0088153	11/30/2020	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<169
TX0088153	12/31/2020	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<170
TX0088153	1/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<170
TX0088153	2/28/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<180
TX0088153	3/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	8	<157
TX0088153	4/30/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<153
TX0088153	5/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	2	4	190

TX0088153	6/30/2021	001A	BOD, carbonaceous [5 day, 20 C]	3	5	201
TX0088153	7/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	3	10	212
TX0088153	8/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<183
TX0088153	9/30/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	2	<173
TX0088153	10/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	<2	<165
TX0088153	11/30/2021	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<157
TX0088153	12/31/2021	001A	BOD, carbonaceous [5 day, 20 C]	3	>20	242
TX0088153	1/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	3	>24	261
TX0088153	2/28/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	<2	<170
TX0088153	3/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<174
TX0088153	4/30/2022	001A	BOD, carbonaceous [5 day, 20 C]	<3	>12	<233
TX0088153	5/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	2	2	210
TX0088153	6/30/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	8	<165
TX0088153	7/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	<3	>11	<212
TX0088153	8/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	<3	<196
TX0088153	9/30/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	<3	<206
TX0088153	10/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	2	<144
TX0088153	11/30/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	<3	<177
TX0088153	12/31/2022	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<156
TX0088153	1/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<169
TX0088153	2/28/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	2	<151
TX0088153	3/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	2	<146
TX0088153	4/30/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<170
TX0088153	5/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<174
TX0088153	6/30/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<160
TX0088153	7/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<176
TX0088153	8/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	4	<176
TX0088153	9/30/2023	001A	BOD, carbonaceous [5 day, 20 C]	<3	4	<189
TX0088153	10/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	3	4	210
TX0088153	11/30/2023	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<193
TX0088153	12/31/2023	001A	BOD, carbonaceous [5 day, 20 C]	2	4	181
TX0088153	1/31/2024	001A	BOD, carbonaceous [5 day, 20 C]	3	6	253
TX0088153	2/29/2024	001A	BOD, carbonaceous [5 day, 20 C]	2	4	172
TX0088153	3/31/2024	001A	BOD, carbonaceous [5 day, 20 C]	3	6	216
TX0088153	4/30/2024	001A	BOD, carbonaceous [5 day, 20 C]	<2	3	<168
2 YEAR AVERAGE				2.24	4.24	184.12
5 YEAR AVERAGE				2.33	5.44	183.05

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure	Reported Measure
				DAILY AV (CFU/100m)	DAILY AV (MPN/100m)	DAILY MX (CFU/100m)	DAILY MX (MPN/100m)
TX0088153	4/30/2019	001A	E. coli	<1	Not Received	2	Not Received
TX0088153	5/31/2019	001A	E. coli	<1	Not Received	30	Not Received
TX0088153	6/30/2019	001A	E. coli	2	Not Received	>2420	Not Received
TX0088153	7/31/2019	001A	E. coli	2	Not Received	>2420	Not Received
TX0088153	8/31/2019	001A	E. coli	<1	Not Received	16	Not Received
TX0088153	9/30/2019	001A	E. coli	<1	Not Received	2	Not Received
TX0088153	10/31/2019	001A	E. coli	<1	Not Received	12	Not Received
TX0088153	11/30/2019	001A	E. coli	<2	Not Received	48	Not Received
TX0088153	12/31/2019	001A	E. coli	Not Received	<1	Not Received	10
TX0088153	1/31/2020	001A	E. coli	Not Received	<1	Not Received	3
TX0088153	2/29/2020	001A	E. coli	Not Received	<1	Not Received	18
TX0088153	3/31/2020	001A	E. coli	Not Received	<1	Not Received	8
TX0088153	4/30/2020	001A	E. coli	Not Received	<1	Not Received	2
TX0088153	5/31/2020	001A	E. coli	Not Received	2	Not Received	>2420
TX0088153	6/30/2020	001A	E. coli	Not Received	<1	Not Received	4
TX0088153	7/31/2020	001A	E. coli	Not Received	<1	Not Received	10
TX0088153	8/31/2020	001A	E. coli	Not Received	<1	Not Received	1
TX0088153	9/30/2020	001A	E. coli	Not Received	<1	Not Received	7
TX0088153	10/31/2020	001A	E. coli	Not Received	<1	Not Received	69
TX0088153	11/30/2020	001A	E. coli	Not Received	<1	Not Received	6
TX0088153	12/31/2020	001A	E. coli	Not Received	<1	Not Received	12
TX0088153	1/31/2021	001A	E. coli	Not Received	<1	Not Received	1
TX0088153	2/28/2021	001A	E. coli	Not Received	<1	Not Received	1
TX0088153	3/31/2021	001A	E. coli	Not Received	<1	Not Received	2
TX0088153	4/30/2021	001A	E. coli	Not Received	<1	Not Received	11
TX0088153	5/31/2021	001A	E. coli	Not Received	<2	Not Received	12100
TX0088153	6/30/2021	001A	E. coli	Not Received	<1	Not Received	3
TX0088153	7/31/2021	001A	E. coli	Not Received	<1	Not Received	3
TX0088153	8/31/2021	001A	E. coli	Not Received	<2	Not Received	1120
TX0088153	9/30/2021	001A	E. coli	Not Received	<1	Not Received	64
TX0088153	10/31/2021	001A	E. coli	Not Received	<1	Not Received	4
TX0088153	11/30/2021	001A	E. coli	Not Received	<2	Not Received	488
TX0088153	12/31/2021	001A	E. coli	Not Received	<1	Not Received	12
TX0088153	1/31/2022	001A	E. coli	Not Received	<2	Not Received	372
TX0088153	2/28/2022	001A	E. coli	Not Received	<1	Not Received	10

TX0088153	3/31/2022	001A	E. coli	Not Received	3	Not Received	>2420
TX0088153	4/30/2022	001A	E. coli	Not Received	<2	Not Received	365
TX0088153	5/31/2022	001A	E. coli	Not Received	<1	Not Received	7
TX0088153	6/30/2022	001A	E. coli	Not Received	1	Not Received	9
TX0088153	7/31/2022	001A	E. coli	Not Received	<2	Not Received	36
TX0088153	8/31/2022	001A	E. coli	Not Received	2	Not Received	186
TX0088153	9/30/2022	001A	E. coli	Not Received	<1	Not Received	2
TX0088153	10/31/2022	001A	E. coli	Not Received	<1	Not Received	1
TX0088153	11/30/2022	001A	E. coli	Not Received	<1	Not Received	8
TX0088153	12/31/2022	001A	E. coli	Not Received	<1	Not Received	58
TX0088153	1/31/2023	001A	E. coli	Not Received	<1	Not Received	120
TX0088153	2/28/2023	001A	E. coli	Not Received	<1	Not Received	3
TX0088153	3/31/2023	001A	E. coli	Not Received	<1	Not Received	6
TX0088153	4/30/2023	001A	E. coli	Not Received	<1	Not Received	2
TX0088153	5/31/2023	001A	E. coli	Not Received	<1	Not Received	1
TX0088153	6/30/2023	001A	E. coli	Not Received	<1	Not Received	1
TX0088153	7/31/2023	001A	E. coli	Not Received	<1	Not Received	5
TX0088153	8/31/2023	001A	E. coli	Not Received	<1	Not Received	6
TX0088153	9/30/2023	001A	E. coli	Not Received	<2	Not Received	146
TX0088153	10/31/2023	001A	E. coli	Not Received	<2	Not Received	28
TX0088153	11/30/2023	001A	E. coli	Not Received	<1	Not Received	2
TX0088153	12/31/2023	001A	E. coli	Not Received	<1	Not Received	8
TX0088153	1/31/2024	001A	E. coli	Not Received	<1	Not Received	6
TX0088153	2/29/2024	001A	E. coli	Not Received	1	Not Received	16
TX0088153	3/31/2024	001A	E. coli	Not Received	1	Not Received	4
TX0088153	4/30/2024	001A	E. coli	Not Received	1	Not Received	12
2 YEAR GEOMEAN				Not Received	1.15	Not Received	9.77
5 YEAR GEOMEAN				1.30	1.16	39.94	14.01

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				DAILY AV (MGD)	DAILY MX (MGD)
TX0088153	4/30/2019	001A	Flow, in conduit or thru treatment plant	6.32	14.98
TX0088153	5/31/2019	001A	Flow, in conduit or thru treatment plant	10	23.2
TX0088153	6/30/2019	001A	Flow, in conduit or thru treatment plant	9.14	16.17
TX0088153	7/31/2019	001A	Flow, in conduit or thru treatment plant	7.31	10.14
TX0088153	8/31/2019	001A	Flow, in conduit or thru treatment plant	4.77	7.34
TX0088153	9/30/2019	001A	Flow, in conduit or thru treatment plant	5.59	20.7

TX0088153	10/31/2019	001A	Flow, in conduit or thru treatment plant	4.53	6.98
TX0088153	11/30/2019	001A	Flow, in conduit or thru treatment plant	6.9	10.47
TX0088153	12/31/2019	001A	Flow, in conduit or thru treatment plant	7.82	10.17
TX0088153	1/31/2020	001A	Flow, in conduit or thru treatment plant	8.39	11.97
TX0088153	2/29/2020	001A	Flow, in conduit or thru treatment plant	8.07	11.84
TX0088153	3/31/2020	001A	Flow, in conduit or thru treatment plant	8.07	8.77
TX0088153	4/30/2020	001A	Flow, in conduit or thru treatment plant	8.19	10.92
TX0088153	5/31/2020	001A	Flow, in conduit or thru treatment plant	8.82	14.57
TX0088153	6/30/2020	001A	Flow, in conduit or thru treatment plant	8.88	13.29
TX0088153	7/31/2020	001A	Flow, in conduit or thru treatment plant	9.03	16.81
TX0088153	8/31/2020	001A	Flow, in conduit or thru treatment plant	8.41	11.59
TX0088153	9/30/2020	001A	Flow, in conduit or thru treatment plant	11.27	49.72
TX0088153	10/31/2020	001A	Flow, in conduit or thru treatment plant	9.02	15.4
TX0088153	11/30/2020	001A	Flow, in conduit or thru treatment plant	9.12	19.57
TX0088153	12/31/2020	001A	Flow, in conduit or thru treatment plant	9.58	16.04
TX0088153	1/31/2021	001A	Flow, in conduit or thru treatment plant	9.36	16.08
TX0088153	2/28/2021	001A	Flow, in conduit or thru treatment plant	9.93	18.79
TX0088153	3/31/2021	001A	Flow, in conduit or thru treatment plant	8.11	10.67
TX0088153	4/30/2021	001A	Flow, in conduit or thru treatment plant	8.39	12.95
TX0088153	5/31/2021	001A	Flow, in conduit or thru treatment plant	9.16	21.50
TX0088153	6/30/2021	001A	Flow, in conduit or thru treatment plant	10.01	15.65
TX0088153	7/31/2021	001A	Flow, in conduit or thru treatment plant	10.23	20.25
TX0088153	8/31/2021	001A	Flow, in conduit or thru treatment plant	9.69	14.93
TX0088153	9/30/2021	001A	Flow, in conduit or thru treatment plant	9.78	18.73
TX0088153	10/31/2021	001A	Flow, in conduit or thru treatment plant	8.99	11.74
TX0088153	11/30/2021	001A	Flow, in conduit or thru treatment plant	8.47	10.97
TX0088153	12/31/2021	001A	Flow, in conduit or thru treatment plant	8.82	10.00
TX0088153	1/31/2022	001A	Flow, in conduit or thru treatment plant	9.72	16.42
TX0088153	2/28/2022	001A	Flow, in conduit or thru treatment plant	9.17	11.40
TX0088153	3/31/2022	001A	Flow, in conduit or thru treatment plant	8.90	13.97
TX0088153	4/30/2022	001A	Flow, in conduit or thru treatment plant	9.83	16.54
TX0088153	5/31/2022	001A	Flow, in conduit or thru treatment plant	11.61	22.82
TX0088153	6/30/2022	001A	Flow, in conduit or thru treatment plant	8.49	10.88
TX0088153	7/31/2022	001A	Flow, in conduit or thru treatment plant	8.85	9.42
TX0088153	8/31/2022	001A	Flow, in conduit or thru treatment plant	10.03	16.58
TX0088153	9/30/2022	001A	Flow, in conduit or thru treatment plant	10.51	15.24
TX0088153	10/31/2022	001A	Flow, in conduit or thru treatment plant	8.14	11.15
TX0088153	11/30/2022	001A	Flow, in conduit or thru treatment plant	9.31	15.27

TX0088153	12/31/2022	001A	Flow, in conduit or thru treatment plant	8.96	14.10
TX0088153	1/31/2023	001A	Flow, in conduit or thru treatment plant	9.00	16.82
TX0088153	2/28/2023	001A	Flow, in conduit or thru treatment plant	8.45	10.58
TX0088153	3/31/2023	001A	Flow, in conduit or thru treatment plant	8.61	10.55
TX0088153	4/30/2023	001A	Flow, in conduit or thru treatment plant	8.75	15.51
TX0088153	5/31/2023	001A	Flow, in conduit or thru treatment plant	9.11	19.41
TX0088153	6/30/2023	001A	Flow, in conduit or thru treatment plant	8.22	9.09
TX0088153	7/31/2023	001A	Flow, in conduit or thru treatment plant	9.18	18.70
TX0088153	8/31/2023	001A	Flow, in conduit or thru treatment plant	8.69	9.12
TX0088153	9/30/2023	001A	Flow, in conduit or thru treatment plant	9.10	11.31
TX0088153	10/31/2023	001A	Flow, in conduit or thru treatment plant	9.45	12.96
TX0088153	11/30/2023	001A	Flow, in conduit or thru treatment plant	10.32	15.59
TX0088153	12/31/2023	001A	Flow, in conduit or thru treatment plant	8.72	10.96
TX0088153	1/31/2024	001A	Flow, in conduit or thru treatment plant	11.14	21.55
TX0088153	2/29/2024	001A	Flow, in conduit or thru treatment plant	8.96	16.15
TX0088153	3/31/2024	001A	Flow, in conduit or thru treatment plant	9.26	22.05
TX0088153	4/30/2024	001A	Flow, in conduit or thru treatment plant	9.14	15.19
2 YEAR AVERAGE				9.27	14.70
5 YEAR AVERAGE				8.85	14.95

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				DAILY AV (mg/L)	DAILY MX (mg/L)	DAILY AV (lb/d)
TX0088153	4/30/2019	001A	Nitrogen, ammonia total [as N]	1	5	42
TX0088153	5/31/2019	001A	Nitrogen, ammonia total [as N]	<1	3	<41
TX0088153	6/30/2019	001A	Nitrogen, ammonia total [as N]	1	3	59
TX0088153	7/31/2019	001A	Nitrogen, ammonia total [as N]	<1	1	<13
TX0088153	8/31/2019	001A	Nitrogen, ammonia total [as N]	<1	4	<22
TX0088153	9/30/2019	001A	Nitrogen, ammonia total [as N]	<1	5	<28
TX0088153	10/31/2019	001A	Nitrogen, ammonia total [as N]	<1	3	<8
TX0088153	11/30/2019	001A	Nitrogen, ammonia total [as N]	<1	1	<15
TX0088153	12/31/2019	001A	Nitrogen, ammonia total [as N]	<1	3	<16
TX0088153	1/31/2020	001A	Nitrogen, ammonia total [as N]	<1	9	<62
TX0088153	2/29/2020	001A	Nitrogen, ammonia total [as N]	<1	2	<16
TX0088153	3/31/2020	001A	Nitrogen, ammonia total [as N]	1	3	60
TX0088153	4/30/2020	001A	Nitrogen, ammonia total [as N]	1	3	64
TX0088153	5/31/2020	001A	Nitrogen, ammonia total [as N]	<1	1	21
TX0088153	6/30/2020	001A	Nitrogen, ammonia total [as N]	<1	2	<22

TX0088153	7/31/2020	001A	Nitrogen, ammonia total [as N]	2	8	144
TX0088153	8/31/2020	001A	Nitrogen, ammonia total [as N]	<1	5	<32
TX0088153	9/30/2020	001A	Nitrogen, ammonia total [as N]	<1	8	<60
TX0088153	10/31/2020	001A	Nitrogen, ammonia total [as N]	<1	3	<26
TX0088153	11/30/2020	001A	Nitrogen, ammonia total [as N]	<1	2	<11
TX0088153	12/31/2020	001A	Nitrogen, ammonia total [as N]	<1	2	<15
TX0088153	1/31/2021	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	2/28/2021	001A	Nitrogen, ammonia total [as N]	<1	8	<55
TX0088153	3/31/2021	001A	Nitrogen, ammonia total [as N]	<1	9	<70
TX0088153	4/30/2021	001A	Nitrogen, ammonia total [as N]	<1	7	<79
TX0088153	5/31/2021	001A	Nitrogen, ammonia total [as N]	<1	1	<11
TX0088153	6/30/2021	001A	Nitrogen, ammonia total [as N]	<1	2	<32
TX0088153	7/31/2021	001A	Nitrogen, ammonia total [as N]	<1	6	<51
TX0088153	8/31/2021	001A	Nitrogen, ammonia total [as N]	<1	1	<8
TX0088153	9/30/2021	001A	Nitrogen, ammonia total [as N]	<1	2	<17
TX0088153	10/31/2021	001A	Nitrogen, ammonia total [as N]	<1	2	<14
TX0088153	11/30/2021	001A	Nitrogen, ammonia total [as N]	1	7	77
TX0088153	12/31/2021	001A	Nitrogen, ammonia total [as N]	<1	10	<91
TX0088153	1/31/2022	001A	Nitrogen, ammonia total [as N]	<1	13	<74
TX0088153	2/28/2022	001A	Nitrogen, ammonia total [as N]	<1	2	<9
TX0088153	3/31/2022	001A	Nitrogen, ammonia total [as N]	<1	2	<11
TX0088153	4/30/2022	001A	Nitrogen, ammonia total [as N]	<1	12	<103
TX0088153	5/31/2022	001A	Nitrogen, ammonia total [as N]	1	7	171
TX0088153	6/30/2022	001A	Nitrogen, ammonia total [as N]	<1	5	<21
TX0088153	7/31/2022	001A	Nitrogen, ammonia total [as N]	<1	9	<45
TX0088153	8/31/2022	001A	Nitrogen, ammonia total [as N]	<1	<1	<5
TX0088153	9/30/2022	001A	Nitrogen, ammonia total [as N]	<1	1	<6
TX0088153	10/31/2022	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	11/30/2022	001A	Nitrogen, ammonia total [as N]	<1	<1	<5
TX0088153	12/31/2022	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	1/31/2023	001A	Nitrogen, ammonia total [as N]	<1	<1	<5
TX0088153	2/28/2023	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	3/31/2023	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	4/30/2023	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	5/31/2023	001A	Nitrogen, ammonia total [as N]	<1	<1	<4
TX0088153	6/30/2023	001A	Nitrogen, ammonia total [as N]	<1	2	<17
TX0088153	7/31/2023	001A	Nitrogen, ammonia total [as N]	<1	1	<7
TX0088153	8/31/2023	001A	Nitrogen, ammonia total [as N]	<1	1	<14

TX0088153	9/30/2023	001A	Nitrogen, ammonia total [as N]	<1	6	<51
TX0088153	10/31/2023	001A	Nitrogen, ammonia total [as N]	1	2	44
TX0088153	11/30/2023	001A	Nitrogen, ammonia total [as N]	<1	1	<13
TX0088153	12/31/2023	001A	Nitrogen, ammonia total [as N]	<1	1	<10
TX0088153	1/31/2024	001A	Nitrogen, ammonia total [as N]	<1	1	<11
TX0088153	2/29/2024	001A	Nitrogen, ammonia total [as N]	<1	1	<8
TX0088153	3/31/2024	001A	Nitrogen, ammonia total [as N]	<1	1	<11
TX0088153	4/30/2024	001A	Nitrogen, ammonia total [as N]	<1	1	<7
2 YEAR AVERAGE				1.00	2.44	23.12
5 YEAR AVERAGE				1.02	3.44	32.10

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MO MIN (mg/L)
TX0088153	4/30/2019	001A	Oxygen, dissolved [DO]	6.9
TX0088153	5/31/2019	001A	Oxygen, dissolved [DO]	6.4
TX0088153	6/30/2019	001A	Oxygen, dissolved [DO]	6.7
TX0088153	7/31/2019	001A	Oxygen, dissolved [DO]	6.5
TX0088153	8/31/2019	001A	Oxygen, dissolved [DO]	6.5
TX0088153	9/30/2019	001A	Oxygen, dissolved [DO]	6.5
TX0088153	10/31/2019	001A	Oxygen, dissolved [DO]	6
TX0088153	11/30/2019	001A	Oxygen, dissolved [DO]	7.2
TX0088153	12/31/2019	001A	Oxygen, dissolved [DO]	7
TX0088153	1/31/2020	001A	Oxygen, dissolved [DO]	7.1
TX0088153	2/29/2020	001A	Oxygen, dissolved [DO]	7
TX0088153	3/31/2020	001A	Oxygen, dissolved [DO]	7
TX0088153	4/30/2020	001A	Oxygen, dissolved [DO]	7.3
TX0088153	5/31/2020	001A	Oxygen, dissolved [DO]	7
TX0088153	6/30/2020	001A	Oxygen, dissolved [DO]	7
TX0088153	7/31/2020	001A	Oxygen, dissolved [DO]	6.6
TX0088153	8/31/2020	001A	Oxygen, dissolved [DO]	6.8
TX0088153	9/30/2020	001A	Oxygen, dissolved [DO]	6.3
TX0088153	10/31/2020	001A	Oxygen, dissolved [DO]	7.2
TX0088153	11/30/2020	001A	Oxygen, dissolved [DO]	6.8
TX0088153	12/31/2020	001A	Oxygen, dissolved [DO]	7.2
TX0088153	1/31/2021	001A	Oxygen, dissolved [DO]	7
TX0088153	2/28/2021	001A	Oxygen, dissolved [DO]	6.4
TX0088153	3/31/2021	001A	Oxygen, dissolved [DO]	7

TX0088153	4/30/2021	001A	Oxygen, dissolved [DO]	7.2
TX0088153	5/31/2021	001A	Oxygen, dissolved [DO]	7.2
TX0088153	6/30/2021	001A	Oxygen, dissolved [DO]	6.5
TX0088153	7/31/2021	001A	Oxygen, dissolved [DO]	7
TX0088153	8/31/2021	001A	Oxygen, dissolved [DO]	7.2
TX0088153	9/30/2021	001A	Oxygen, dissolved [DO]	6.7
TX0088153	10/31/2021	001A	Oxygen, dissolved [DO]	6.6
TX0088153	11/30/2021	001A	Oxygen, dissolved [DO]	7.1
TX0088153	12/31/2021	001A	Oxygen, dissolved [DO]	6.6
TX0088153	1/31/2022	001A	Oxygen, dissolved [DO]	7.1
TX0088153	2/28/2022	001A	Oxygen, dissolved [DO]	6.8
TX0088153	3/31/2022	001A	Oxygen, dissolved [DO]	7.3
TX0088153	4/30/2022	001A	Oxygen, dissolved [DO]	7.2
TX0088153	5/31/2022	001A	Oxygen, dissolved [DO]	6.2
TX0088153	6/30/2022	001A	Oxygen, dissolved [DO]	7
TX0088153	7/31/2022	001A	Oxygen, dissolved [DO]	7.1
TX0088153	8/31/2022	001A	Oxygen, dissolved [DO]	6.9
TX0088153	9/30/2022	001A	Oxygen, dissolved [DO]	7
TX0088153	10/31/2022	001A	Oxygen, dissolved [DO]	7.3
TX0088153	11/30/2022	001A	Oxygen, dissolved [DO]	7.2
TX0088153	12/31/2022	001A	Oxygen, dissolved [DO]	6.8
TX0088153	1/31/2023	001A	Oxygen, dissolved [DO]	6.3
TX0088153	2/28/2023	001A	Oxygen, dissolved [DO]	7
TX0088153	3/31/2023	001A	Oxygen, dissolved [DO]	7.2
TX0088153	4/30/2023	001A	Oxygen, dissolved [DO]	7
TX0088153	5/31/2023	001A	Oxygen, dissolved [DO]	6.9
TX0088153	6/30/2023	001A	Oxygen, dissolved [DO]	7
TX0088153	7/31/2023	001A	Oxygen, dissolved [DO]	7
TX0088153	8/31/2023	001A	Oxygen, dissolved [DO]	6.9
TX0088153	9/30/2023	001A	Oxygen, dissolved [DO]	6.8
TX0088153	10/31/2023	001A	Oxygen, dissolved [DO]	7.1
TX0088153	11/30/2023	001A	Oxygen, dissolved [DO]	7.4
TX0088153	12/31/2023	001A	Oxygen, dissolved [DO]	7
TX0088153	1/31/2024	001A	Oxygen, dissolved [DO]	7.4
TX0088153	2/29/2024	001A	Oxygen, dissolved [DO]	7.4
TX0088153	3/31/2024	001A	Oxygen, dissolved [DO]	7.4
TX0088153	4/30/2024	001A	Oxygen, dissolved [DO]	7

2 YEAR AVERAGE

7.02

5 YEAR AVERAGE

6.92

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				MINIMUM (SU)	MAXIMUM (SU)
TX0088153	4/30/2019	001A	pH	7.1	7.7
TX0088153	5/31/2019	001A	pH	7	7.4
TX0088153	6/30/2019	001A	pH	7	7.5
TX0088153	7/31/2019	001A	pH	7.1	7.5
TX0088153	8/31/2019	001A	pH	7	7.6
TX0088153	9/30/2019	001A	pH	7	7.4
TX0088153	10/31/2019	001A	pH	6.9	7.5
TX0088153	11/30/2019	001A	pH	7.1	7.5
TX0088153	12/31/2019	001A	pH	7	7.5
TX0088153	1/31/2020	001A	pH	7.1	7.5
TX0088153	2/29/2020	001A	pH	7	7.6
TX0088153	3/31/2020	001A	pH	7.2	7.6
TX0088153	4/30/2020	001A	pH	7.2	7.7
TX0088153	5/31/2020	001A	pH	7	7.6
TX0088153	6/30/2020	001A	pH	7.1	7.6
TX0088153	7/31/2020	001A	pH	7.2	8.2
TX0088153	8/31/2020	001A	pH	7.1	7.5
TX0088153	9/30/2020	001A	pH	7.1	7.6
TX0088153	10/31/2020	001A	pH	7.2	7.7
TX0088153	11/30/2020	001A	pH	6.7	7.8
TX0088153	12/31/2020	001A	pH	7.1	7.5
TX0088153	1/31/2021	001A	pH	7	7.5
TX0088153	2/28/2021	001A	pH	6.9	7.4
TX0088153	3/31/2021	001A	pH	7.1	7.7
TX0088153	4/30/2021	001A	pH	7	8.5
TX0088153	5/31/2021	001A	pH	7.3	8
TX0088153	6/30/2021	001A	pH	7	7.8
TX0088153	7/31/2021	001A	pH	7	7.4
TX0088153	8/31/2021	001A	pH	7	7.9
TX0088153	9/30/2021	001A	pH	7	7.9
TX0088153	10/31/2021	001A	pH	6.9	7.5
TX0088153	11/30/2021	001A	pH	7.2	7.7
TX0088153	12/31/2021	001A	pH	6.6	8.2

TX0088153	1/31/2022	001A	pH	6.9	7.6
TX0088153	2/28/2022	001A	pH	7.1	7.6
TX0088153	3/31/2022	001A	pH	7.2	7.5
TX0088153	4/30/2022	001A	pH	7.1	7.7
TX0088153	5/31/2022	001A	pH	7.3	7.6
TX0088153	6/30/2022	001A	pH	7	7.4
TX0088153	7/31/2022	001A	pH	7	7.7
TX0088153	8/31/2022	001A	pH	7	7.4
TX0088153	9/30/2022	001A	pH	7.2	7.4
TX0088153	10/31/2022	001A	pH	7.3	7.4
TX0088153	11/30/2022	001A	pH	7.2	7.5
TX0088153	12/31/2022	001A	pH	7.1	7.4
TX0088153	1/31/2023	001A	pH	7.1	8
TX0088153	2/28/2023	001A	pH	7.1	7.4
TX0088153	3/31/2023	001A	pH	7.1	7.3
TX0088153	4/30/2023	001A	pH	7	7.4
TX0088153	5/31/2023	001A	pH	7.1	7.3
TX0088153	6/30/2023	001A	pH	7.1	7.3
TX0088153	7/31/2023	001A	pH	7.1	7.3
TX0088153	8/31/2023	001A	pH	7.1	7.4
TX0088153	9/30/2023	001A	pH	7.1	7.5
TX0088153	10/31/2023	001A	pH	7.1	7.3
TX0088153	11/30/2023	001A	pH	7	7.3
TX0088153	12/31/2023	001A	pH	7.1	7.3
TX0088153	1/31/2024	001A	pH	7	7.5
TX0088153	2/29/2024	001A	pH	7.1	7.7
TX0088153	3/31/2024	001A	pH	7.1	7.4
TX0088153	4/30/2024	001A	pH	7.1	7.3
2 YEAR AVERAGE				7.10	7.45
5 YEAR AVERAGE				7.06	7.57

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				DAILY AV (mg/L)	DAILY MX (mg/L)	DAILY AV (lb/d)
TX0088153	4/30/2019	001A	Solids, total suspended	4	10	216
TX0088153	5/31/2019	001A	Solids, total suspended	3	7	254
TX0088153	6/30/2019	001A	Solids, total suspended	2	4	188
TX0088153	7/31/2019	001A	Solids, total suspended	<2	5	<145

TX0088153	8/31/2019	001A	Solids, total suspended	3	7	121
TX0088153	9/30/2019	001A	Solids, total suspended	<8	162	<1051
TX0088153	10/31/2019	001A	Solids, total suspended	2	7	95
TX0088153	11/30/2019	001A	Solids, total suspended	3	7	195
TX0088153	12/31/2019	001A	Solids, total suspended	4	22	242
TX0088153	1/31/2020	001A	Solids, total suspended	5	12	386
TX0088153	2/29/2020	001A	Solids, total suspended	6	14	425
TX0088153	3/31/2020	001A	Solids, total suspended	8	18	546
TX0088153	4/30/2020	001A	Solids, total suspended	5	13	338
TX0088153	5/31/2020	001A	Solids, total suspended	4	9	296
TX0088153	6/30/2020	001A	Solids, total suspended	3	10	255
TX0088153	7/31/2020	001A	Solids, total suspended	5	15	339
TX0088153	8/31/2020	001A	Solids, total suspended	<3	7	<198
TX0088153	9/30/2020	001A	Solids, total suspended	7	50	1225
TX0088153	10/31/2020	001A	Solids, total suspended	4	22	342
TX0088153	11/30/2020	001A	Solids, total suspended	4	9	270
TX0088153	12/31/2020	001A	Solids, total suspended	<3	11	<240
TX0088153	1/31/2021	001A	Solids, total suspended	3	6	251
TX0088153	2/28/2021	001A	Solids, total suspended	5	10	391
TX0088153	3/31/2021	001A	Solids, total suspended	<3	8	<164
TX0088153	4/30/2021	001A	Solids, total suspended	<2	4	<170
TX0088153	5/31/2021	001A	Solids, total suspended	<3	9	<263
TX0088153	6/30/2021	001A	Solids, total suspended	<2	4	<189
TX0088153	7/31/2021	001A	Solids, total suspended	<2	8	<224
TX0088153	8/31/2021	001A	Solids, total suspended	3	5	211
TX0088153	9/30/2021	001A	Solids, total suspended	<2	5	<189
TX0088153	10/31/2021	001A	Solids, total suspended	<2	3	<158
TX0088153	11/30/2021	001A	Solids, total suspended	<2	4	<154
TX0088153	12/31/2021	001A	Solids, total suspended	3	14	243
TX0088153	1/31/2022	001A	Solids, total suspended	4	22	311
TX0088153	2/28/2022	001A	Solids, total suspended	2	5	180
TX0088153	3/31/2022	001A	Solids, total suspended	4	13	306
TX0088153	4/30/2022	001A	Solids, total suspended	<3	11	<228
TX0088153	5/31/2022	001A	Solids, total suspended	3	6	288
TX0088153	6/30/2022	001A	Solids, total suspended	<2	6	<159
TX0088153	7/31/2022	001A	Solids, total suspended	<2	7	<179
TX0088153	8/31/2022	001A	Solids, total suspended	<2	5	<206
TX0088153	9/30/2022	001A	Solids, total suspended	<2	6	<209

TX0088153	10/31/2022	001A	Solids, total suspended	3	4	191
TX0088153	11/30/2022	001A	Solids, total suspended	3	10	291
TX0088153	12/31/2022	001A	Solids, total suspended	3	8	232
TX0088153	1/31/2023	001A	Solids, total suspended	3	9	274
TX0088153	2/28/2023	001A	Solids, total suspended	3	6	230
TX0088153	3/31/2023	001A	Solids, total suspended	3	5	191
TX0088153	4/30/2023	001A	Solids, total suspended	4	18	296
TX0088153	5/31/2023	001A	Solids, total suspended	4	13	273
TX0088153	6/30/2023	001A	Solids, total suspended	<3	20	<216
TX0088153	7/31/2023	001A	Solids, total suspended	<2	9	<206
TX0088153	8/31/2023	001A	Solids, total suspended	<2	3	<161
TX0088153	9/30/2023	001A	Solids, total suspended	3	9	251
TX0088153	10/31/2023	001A	Solids, total suspended	5	10	365
TX0088153	11/30/2023	001A	Solids, total suspended	<3	9	<259
TX0088153	12/31/2023	001A	Solids, total suspended	6	13	449
TX0088153	1/31/2024	001A	Solids, total suspended	8	26	870
TX0088153	2/29/2024	001A	Solids, total suspended	6	26	506
TX0088153	3/31/2024	001A	Solids, total suspended	6	35	595
TX0088153	4/30/2024	001A	Solids, total suspended	5	17	392
2 YEAR AVERAGE				3.56	11.64	300.68
5 YEAR AVERAGE				3.59	13.64	299.80

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				INST MAX (mg/L)
TX0088153	4/30/2019	001A	Chlorine, total residual	0.04
TX0088153	5/31/2019	001A	Chlorine, total residual	0.07
TX0088153	6/30/2019	001A	Chlorine, total residual	0.05
TX0088153	7/31/2019	001A	Chlorine, total residual	0.07
TX0088153	8/31/2019	001A	Chlorine, total residual	0.05
TX0088153	9/30/2019	001A	Chlorine, total residual	0.05
TX0088153	10/31/2019	001A	Chlorine, total residual	0.03
TX0088153	11/30/2019	001A	Chlorine, total residual	0.06
TX0088153	12/31/2019	001A	Chlorine, total residual	0.03
TX0088153	1/31/2020	001A	Chlorine, total residual	0.04
TX0088153	2/29/2020	001A	Chlorine, total residual	0.05
TX0088153	3/31/2020	001A	Chlorine, total residual	0.02
TX0088153	4/30/2020	001A	Chlorine, total residual	0.02

TX0088153	5/31/2020	001A	Chlorine, total residual	0.02
TX0088153	6/30/2020	001A	Chlorine, total residual	0.05
TX0088153	7/31/2020	001A	Chlorine, total residual	0.03
TX0088153	8/31/2020	001A	Chlorine, total residual	0.03
TX0088153	9/30/2020	001A	Chlorine, total residual	<.02
TX0088153	10/31/2020	001A	Chlorine, total residual	0.02
TX0088153	11/30/2020	001A	Chlorine, total residual	0.02
TX0088153	12/31/2020	001A	Chlorine, total residual	0.02
TX0088153	1/31/2021	001A	Chlorine, total residual	0.02
TX0088153	2/28/2021	001A	Chlorine, total residual	0.04
TX0088153	3/31/2021	001A	Chlorine, total residual	0.02
TX0088153	4/30/2021	001A	Chlorine, total residual	0.02
TX0088153	5/31/2021	001A	Chlorine, total residual	0.03
TX0088153	6/30/2021	001A	Chlorine, total residual	0.03
TX0088153	7/31/2021	001A	Chlorine, total residual	0.02
TX0088153	8/31/2021	001A	Chlorine, total residual	0.04
TX0088153	9/30/2021	001A	Chlorine, total residual	0.02
TX0088153	10/31/2021	001A	Chlorine, total residual	0.03
TX0088153	11/30/2021	001A	Chlorine, total residual	0.03
TX0088153	12/31/2021	001A	Chlorine, total residual	0.03
TX0088153	1/31/2022	001A	Chlorine, total residual	0.03
TX0088153	2/28/2022	001A	Chlorine, total residual	0.02
TX0088153	3/31/2022	001A	Chlorine, total residual	0.03
TX0088153	4/30/2022	001A	Chlorine, total residual	0.03
TX0088153	5/31/2022	001A	Chlorine, total residual	0.02
TX0088153	6/30/2022	001A	Chlorine, total residual	0.03
TX0088153	7/31/2022	001A	Chlorine, total residual	0.02
TX0088153	8/31/2022	001A	Chlorine, total residual	0.02
TX0088153	9/30/2022	001A	Chlorine, total residual	0.02
TX0088153	10/31/2022	001A	Chlorine, total residual	0.02
TX0088153	11/30/2022	001A	Chlorine, total residual	0.03
TX0088153	12/31/2022	001A	Chlorine, total residual	0.02
TX0088153	1/31/2023	001A	Chlorine, total residual	0.02
TX0088153	2/28/2023	001A	Chlorine, total residual	0.02
TX0088153	3/31/2023	001A	Chlorine, total residual	0.02
TX0088153	4/30/2023	001A	Chlorine, total residual	0.02
TX0088153	5/31/2023	001A	Chlorine, total residual	0.02
TX0088153	6/30/2023	001A	Chlorine, total residual	0.01

TX0088153	7/31/2023	001A	Chlorine, total residual	0.02
TX0088153	8/31/2023	001A	Chlorine, total residual	0.02
TX0088153	9/30/2023	001A	Chlorine, total residual	0.02
TX0088153	10/31/2023	001A	Chlorine, total residual	0.01
TX0088153	11/30/2023	001A	Chlorine, total residual	0.03
TX0088153	12/31/2023	001A	Chlorine, total residual	0.02
TX0088153	1/31/2024	001A	Chlorine, total residual	0.03
TX0088153	2/29/2024	001A	Chlorine, total residual	0.01
TX0088153	3/31/2024	001A	Chlorine, total residual	0.02
TX0088153	4/30/2024	001A	Chlorine, total residual	0.02
2 YEAR AVERAGE				0.02
5 YEAR AVERAGE				0.03

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MO MIN (mg/L)
TX0088153	4/30/2019	001A	Chlorine, total residual	1
TX0088153	5/31/2019	001A	Chlorine, total residual	1.2
TX0088153	6/30/2019	001A	Chlorine, total residual	1.1
TX0088153	7/31/2019	001A	Chlorine, total residual	1
TX0088153	8/31/2019	001A	Chlorine, total residual	1
TX0088153	9/30/2019	001A	Chlorine, total residual	1.7
TX0088153	10/31/2019	001A	Chlorine, total residual	1
TX0088153	11/30/2019	001A	Chlorine, total residual	1.2
TX0088153	12/31/2019	001A	Chlorine, total residual	1.1
TX0088153	1/31/2020	001A	Chlorine, total residual	1.2
TX0088153	2/29/2020	001A	Chlorine, total residual	1.4
TX0088153	3/31/2020	001A	Chlorine, total residual	1.3
TX0088153	4/30/2020	001A	Chlorine, total residual	1.2
TX0088153	5/31/2020	001A	Chlorine, total residual	1.1
TX0088153	6/30/2020	001A	Chlorine, total residual	1.2
TX0088153	7/31/2020	001A	Chlorine, total residual	1.2
TX0088153	8/31/2020	001A	Chlorine, total residual	1
TX0088153	9/30/2020	001A	Chlorine, total residual	1.2
TX0088153	10/31/2020	001A	Chlorine, total residual	1.2
TX0088153	11/30/2020	001A	Chlorine, total residual	1.1
TX0088153	12/31/2020	001A	Chlorine, total residual	1.2
TX0088153	1/31/2021	001A	Chlorine, total residual	1.6

TX0088153	2/28/2021	001A	Chlorine, total residual	1.4
TX0088153	3/31/2021	001A	Chlorine, total residual	1.1
TX0088153	4/30/2021	001A	Chlorine, total residual	1.2
TX0088153	5/31/2021	001A	Chlorine, total residual	1
TX0088153	6/30/2021	001A	Chlorine, total residual	1.2
TX0088153	7/31/2021	001A	Chlorine, total residual	1.1
TX0088153	8/31/2021	001A	Chlorine, total residual	1.2
TX0088153	9/30/2021	001A	Chlorine, total residual	1.1
TX0088153	10/31/2021	001A	Chlorine, total residual	1.1
TX0088153	11/30/2021	001A	Chlorine, total residual	1.2
TX0088153	12/31/2021	001A	Chlorine, total residual	1.5
TX0088153	1/31/2022	001A	Chlorine, total residual	1.4
TX0088153	2/28/2022	001A	Chlorine, total residual	2.5
TX0088153	3/31/2022	001A	Chlorine, total residual	1.1
TX0088153	4/30/2022	001A	Chlorine, total residual	1.5
TX0088153	5/31/2022	001A	Chlorine, total residual	1.2
TX0088153	6/30/2022	001A	Chlorine, total residual	1.4
TX0088153	7/31/2022	001A	Chlorine, total residual	1.6
TX0088153	8/31/2022	001A	Chlorine, total residual	1.4
TX0088153	9/30/2022	001A	Chlorine, total residual	1.6
TX0088153	10/31/2022	001A	Chlorine, total residual	1.2
TX0088153	11/30/2022	001A	Chlorine, total residual	1.4
TX0088153	12/31/2022	001A	Chlorine, total residual	1.8
TX0088153	1/31/2023	001A	Chlorine, total residual	1.6
TX0088153	2/28/2023	001A	Chlorine, total residual	1.5
TX0088153	3/31/2023	001A	Chlorine, total residual	1.6
TX0088153	4/30/2023	001A	Chlorine, total residual	2.8
TX0088153	5/31/2023	001A	Chlorine, total residual	1.8
TX0088153	6/30/2023	001A	Chlorine, total residual	1.4
TX0088153	7/31/2023	001A	Chlorine, total residual	1.4
TX0088153	8/31/2023	001A	Chlorine, total residual	1.1
TX0088153	9/30/2023	001A	Chlorine, total residual	1.3
TX0088153	10/31/2023	001A	Chlorine, total residual	1.2
TX0088153	11/30/2023	001A	Chlorine, total residual	1
TX0088153	12/31/2023	001A	Chlorine, total residual	1.2
TX0088153	1/31/2024	001A	Chlorine, total residual	1.3
TX0088153	2/29/2024	001A	Chlorine, total residual	1.3
TX0088153	3/31/2024	001A	Chlorine, total residual	1.3

TX0088153	4/30/2024	001A	Chlorine, total residual	1.1
			2 YEAR AVERAGE	1.44
			5 YEAR AVERAGE	1.32

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				2HR PEAK (gal/min)
TX0088153	4/30/2019	001A	Flow, in conduit or thru treatment plant	18058
TX0088153	5/31/2019	001A	Flow, in conduit or thru treatment plant	32208
TX0088153	6/30/2019	001A	Flow, in conduit or thru treatment plant	18842
TX0088153	7/31/2019	001A	Flow, in conduit or thru treatment plant	11111
TX0088153	8/31/2019	001A	Flow, in conduit or thru treatment plant	11392
TX0088153	9/30/2019	001A	Flow, in conduit or thru treatment plant	23692
TX0088153	10/31/2019	001A	Flow, in conduit or thru treatment plant	10133
TX0088153	11/30/2019	001A	Flow, in conduit or thru treatment plant	13058
TX0088153	12/31/2019	001A	Flow, in conduit or thru treatment plant	9833
TX0088153	1/31/2020	001A	Flow, in conduit or thru treatment plant	15100
TX0088153	2/29/2020	001A	Flow, in conduit or thru treatment plant	15783
TX0088153	3/31/2020	001A	Flow, in conduit or thru treatment plant	9167
TX0088153	4/30/2020	001A	Flow, in conduit or thru treatment plant	13442
TX0088153	5/31/2020	001A	Flow, in conduit or thru treatment plant	16967
TX0088153	6/30/2020	001A	Flow, in conduit or thru treatment plant	15608
TX0088153	7/31/2020	001A	Flow, in conduit or thru treatment plant	18625
TX0088153	8/31/2020	001A	Flow, in conduit or thru treatment plant	11833
TX0088153	9/30/2020	001A	Flow, in conduit or thru treatment plant	43750
TX0088153	10/31/2020	001A	Flow, in conduit or thru treatment plant	34442
TX0088153	11/30/2020	001A	Flow, in conduit or thru treatment plant	17283
TX0088153	12/31/2020	001A	Flow, in conduit or thru treatment plant	19450
TX0088153	1/31/2021	001A	Flow, in conduit or thru treatment plant	18125
TX0088153	2/28/2021	001A	Flow, in conduit or thru treatment plant	16667
TX0088153	3/31/2021	001A	Flow, in conduit or thru treatment plant	12333
TX0088153	4/30/2021	001A	Flow, in conduit or thru treatment plant	14742
TX0088153	5/31/2021	001A	Flow, in conduit or thru treatment plant	26017
TX0088153	6/30/2021	001A	Flow, in conduit or thru treatment plant	17283
TX0088153	7/31/2021	001A	Flow, in conduit or thru treatment plant	26592
TX0088153	8/31/2021	001A	Flow, in conduit or thru treatment plant	25425
TX0088153	9/30/2021	001A	Flow, in conduit or thru treatment plant	25550
TX0088153	10/31/2021	001A	Flow, in conduit or thru treatment plant	14883

TX0088153	11/30/2021	001A	Flow, in conduit or thru treatment plant	12992
TX0088153	12/31/2021	001A	Flow, in conduit or thru treatment plant	21158
TX0088153	1/31/2022	001A	Flow, in conduit or thru treatment plant	23433
TX0088153	2/28/2022	001A	Flow, in conduit or thru treatment plant	11933
TX0088153	3/31/2022	001A	Flow, in conduit or thru treatment plant	16817
TX0088153	4/30/2022	001A	Flow, in conduit or thru treatment plant	18233
TX0088153	5/31/2022	001A	Flow, in conduit or thru treatment plant	16142
TX0088153	6/30/2022	001A	Flow, in conduit or thru treatment plant	10792
TX0088153	7/31/2022	001A	Flow, in conduit or thru treatment plant	9225
TX0088153	8/31/2022	001A	Flow, in conduit or thru treatment plant	17550
TX0088153	9/30/2022	001A	Flow, in conduit or thru treatment plant	15558
TX0088153	10/31/2022	001A	Flow, in conduit or thru treatment plant	15483
TX0088153	11/30/2022	001A	Flow, in conduit or thru treatment plant	16708
TX0088153	12/31/2022	001A	Flow, in conduit or thru treatment plant	17608
TX0088153	1/31/2023	001A	Flow, in conduit or thru treatment plant	20333
TX0088153	2/28/2023	001A	Flow, in conduit or thru treatment plant	11400
TX0088153	3/31/2023	001A	Flow, in conduit or thru treatment plant	9200
TX0088153	4/30/2023	001A	Flow, in conduit or thru treatment plant	21292
TX0088153	5/31/2023	001A	Flow, in conduit or thru treatment plant	24008
TX0088153	6/30/2023	001A	Flow, in conduit or thru treatment plant	16975
TX0088153	7/31/2023	001A	Flow, in conduit or thru treatment plant	20050
TX0088153	8/31/2023	001A	Flow, in conduit or thru treatment plant	8792
TX0088153	9/30/2023	001A	Flow, in conduit or thru treatment plant	17025
TX0088153	10/31/2023	001A	Flow, in conduit or thru treatment plant	18008
TX0088153	11/30/2023	001A	Flow, in conduit or thru treatment plant	17842
TX0088153	12/31/2023	001A	Flow, in conduit or thru treatment plant	10033
TX0088153	1/31/2024	001A	Flow, in conduit or thru treatment plant	27392
TX0088153	2/29/2024	001A	Flow, in conduit or thru treatment plant	20625
TX0088153	3/31/2024	001A	Flow, in conduit or thru treatment plant	25650
TX0088153	4/30/2024	001A	Flow, in conduit or thru treatment plant	21925

2 YEAR AVERAGE 17113.96
5 YEAR AVERAGE 17894.69

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL AVG (MGD)
TX0088153	4/30/2019	001A	Flow, in conduit or thru treatment plant	8.83
TX0088153	5/31/2019	001A	Flow, in conduit or thru treatment plant	8.96

ANNL AVG LIMIT = 18.0 MGD

PERCENT OF FLOW LIMIT

49.06%

49.78%

TX0088153	6/30/2019	001A	Flow, in conduit or thru treatment plant	8.93	49.61%
TX0088153	7/31/2019	001A	Flow, in conduit or thru treatment plant	8.69	48.28%
TX0088153	8/31/2019	001A	Flow, in conduit or thru treatment plant	8.25	45.83%
TX0088153	9/30/2019	001A	Flow, in conduit or thru treatment plant	7.94	44.11%
TX0088153	10/31/2019	001A	Flow, in conduit or thru treatment plant	7.47	41.50%
TX0088153	11/30/2019	001A	Flow, in conduit or thru treatment plant	7.27	40.39%
TX0088153	12/31/2019	001A	Flow, in conduit or thru treatment plant	7.04	39.11%
TX0088153	1/31/2020	001A	Flow, in conduit or thru treatment plant	6.94	38.56%
TX0088153	2/29/2020	001A	Flow, in conduit or thru treatment plant	6.93	38.50%
TX0088153	3/31/2020	001A	Flow, in conduit or thru treatment plant	7.24	40.22%
TX0088153	4/30/2020	001A	Flow, in conduit or thru treatment plant	7.39	41.06%
TX0088153	5/31/2020	001A	Flow, in conduit or thru treatment plant	7.29	40.50%
TX0088153	6/30/2020	001A	Flow, in conduit or thru treatment plant	7.27	40.39%
TX0088153	7/31/2020	001A	Flow, in conduit or thru treatment plant	7.42	41.22%
TX0088153	8/31/2020	001A	Flow, in conduit or thru treatment plant	7.73	42.94%
TX0088153	9/30/2020	001A	Flow, in conduit or thru treatment plant	8.19	45.50%
TX0088153	10/31/2020	001A	Flow, in conduit or thru treatment plant	8.57	47.61%
TX0088153	11/30/2020	001A	Flow, in conduit or thru treatment plant	8.75	48.61%
TX0088153	12/31/2020	001A	Flow, in conduit or thru treatment plant	8.9	49.44%
TX0088153	1/31/2021	001A	Flow, in conduit or thru treatment plant	8.98	49.89%
TX0088153	2/28/2021	001A	Flow, in conduit or thru treatment plant	9.13	50.72%
TX0088153	3/31/2021	001A	Flow, in conduit or thru treatment plant	9.13	50.72%
TX0088153	4/30/2021	001A	Flow, in conduit or thru treatment plant	9.15	50.83%
TX0088153	5/31/2021	001A	Flow, in conduit or thru treatment plant	9.18	50.99%
TX0088153	6/30/2021	001A	Flow, in conduit or thru treatment plant	9.27	51.51%
TX0088153	7/31/2021	001A	Flow, in conduit or thru treatment plant	9.37	52.07%
TX0088153	8/31/2021	001A	Flow, in conduit or thru treatment plant	9.48	52.67%
TX0088153	9/30/2021	001A	Flow, in conduit or thru treatment plant	9.36	51.99%
TX0088153	10/31/2021	001A	Flow, in conduit or thru treatment plant	9.36	51.98%
TX0088153	11/30/2021	001A	Flow, in conduit or thru treatment plant	9.30	51.69%
TX0088153	12/31/2021	001A	Flow, in conduit or thru treatment plant	9.24	51.33%
TX0088153	1/31/2022	001A	Flow, in conduit or thru treatment plant	9.27	51.50%
TX0088153	2/28/2022	001A	Flow, in conduit or thru treatment plant	9.21	51.18%
TX0088153	3/31/2022	001A	Flow, in conduit or thru treatment plant	9.28	51.55%
TX0088153	4/30/2022	001A	Flow, in conduit or thru treatment plant	9.40	52.21%
TX0088153	5/31/2022	001A	Flow, in conduit or thru treatment plant	9.61	53.37%
TX0088153	6/30/2022	001A	Flow, in conduit or thru treatment plant	9.48	52.68%
TX0088153	7/31/2022	001A	Flow, in conduit or thru treatment plant	9.37	52.03%

TX0088153	8/31/2022	001A	Flow, in conduit or thru treatment plant	9.39	52.18%
TX0088153	9/30/2022	001A	Flow, in conduit or thru treatment plant	9.45	52.52%
TX0088153	10/31/2022	001A	Flow, in conduit or thru treatment plant	9.38	52.12%
TX0088153	11/30/2022	001A	Flow, in conduit or thru treatment plant	9.45	52.51%
TX0088153	12/31/2022	001A	Flow, in conduit or thru treatment plant	9.46	52.57%
TX0088153	1/31/2023	001A	Flow, in conduit or thru treatment plant	9.40	52.23%
TX0088153	2/28/2023	001A	Flow, in conduit or thru treatment plant	9.35	51.92%
TX0088153	3/31/2023	001A	Flow, in conduit or thru treatment plant	9.32	51.78%
TX0088153	4/30/2023	001A	Flow, in conduit or thru treatment plant	9.23	51.29%
TX0088153	5/31/2023	001A	Flow, in conduit or thru treatment plant	9.02	50.11%
TX0088153	6/30/2023	001A	Flow, in conduit or thru treatment plant	9.00	49.98%
TX0088153	7/31/2023	001A	Flow, in conduit or thru treatment plant	9.03	50.14%
TX0088153	8/31/2023	001A	Flow, in conduit or thru treatment plant	8.91	49.51%
TX0088153	9/30/2023	001A	Flow, in conduit or thru treatment plant	8.80	48.87%
TX0088153	10/31/2023	001A	Flow, in conduit or thru treatment plant	8.91	49.48%
TX0088153	11/30/2023	001A	Flow, in conduit or thru treatment plant	8.99	49.94%
TX0088153	12/31/2023	001A	Flow, in conduit or thru treatment plant	8.97	49.83%
TX0088153	1/31/2024	001A	Flow, in conduit or thru treatment plant	9.15	50.84%
TX0088153	2/29/2024	001A	Flow, in conduit or thru treatment plant	9.19	51.05%
TX0088153	3/31/2024	001A	Flow, in conduit or thru treatment plant	9.24	51.35%
TX0088153	4/30/2024	001A	Flow, in conduit or thru treatment plant	9.27	51.52%

2 YEAR AVERAGE

9.23

75% Limit = 13.5

75/90 Rule

NO

5 YEAR AVERAGE

8.78

90% Limit = 16.2

NO

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (N=0;Y=1)
TX0088153	7/31/2019	SLDF	Compliance w/part 258 sludge requirement	1
TX0088153	7/31/2020	SLDF	Compliance w/part 258 sludge requirement	1

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Annual amount of sludge land applied	0
TX0088153	7/31/2020	SLDP	Annual amount of sludge land applied	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Annual amt of sludge incinerated	0
TX0088153	7/31/2020	SLDP	Annual amt of sludge incinerated	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Annual amt sludge disposed in landfill	1236.53
TX0088153	7/31/2020	SLDP	Annual amt sludge disposed in landfill	663.78

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Annual amt. sludge disposed surface unit	0
TX0088153	7/31/2020	SLDP	Annual amt. sludge disposed surface unit	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Annual amt sludge transported interstate	0
TX0088153	7/31/2020	SLDP	Annual amt sludge transported interstate	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Annual sludge production, total	1236.53
TX0088153	7/31/2020	SLDP	Annual sludge production, total	675.89

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL MAX (mg/kg)
TX0088153	7/31/2019	SLDP	Polychlorinated biphenyls [PCBs]	<2
TX0088153	7/31/2020	SLDP	Polychlorinated biphenyls [PCBs]	<.0037

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MO AV MN (pass=0;fail=1)
TX0088153	7/31/2019	SLDP	Toxicity characteristic leaching procedure	0
TX0088153	7/31/2020	SLDP	Toxicity characteristic leaching procedure	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				ANNL TOT (DMT/y)
TX0088153	7/31/2019	SLDP	Ann. amt sludge disposed by other method	0
TX0088153	7/31/2020	SLDP	Ann. amt sludge disposed by other method	12.11

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MX VALUE (met t/ha/yr)
TX0088153	7/31/2019	SLLA	Annual whole sludge application rate	NODI=9
TX0088153	7/31/2020	SLLA	Annual whole sludge application rate	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Arsenic, dry weight	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Arsenic, dry weight	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Cadmium, dry weight	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Cadmium, dry weight	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Chromium, sludge, total, dry weight [as Cr]	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Chromium, sludge, total, dry weight [as Cr]	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Copper, dry weight	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Copper, dry weight	NODI=9	NODI=9	NODI=9

EPA ID				Reported Measure	Reported Measure	Reported Measure
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	Monitoring Period	Outfall	Parameter	SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Lead, sludge, total, dry weight [as Pb]	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Lead, sludge, total, dry weight [as Pb]	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Mercury, sludge, total, dry weight [as Hg]	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Mercury, sludge, total, dry weight [as Hg]	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Molybdenum, sludge, total, dry weight [as Mo]	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Molybdenum, sludge, total, dry weight [as Mo]	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Nickel, sludge, total, dry weight [as Ni]	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Nickel, sludge, total, dry weight [as Ni]	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Selenium, dry weight	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Selenium, dry weight	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure	Reported Measure
				SINGSAMP (mg/kg)	MAXIMUM (mg/kg)	MX VALUE (lb/acr)
TX0088153	7/31/2019	SLLA	Zinc, sludge, total, dry weight [as Zn]	NODI=9	NODI=9	NODI=9
TX0088153	7/31/2020	SLLA	Zinc, sludge, total, dry weight [as Zn]	NODI=9	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (table #)
TX0088153	7/31/2019	SLLA	Pollutant table from 503.13	NODI=9
TX0088153	7/31/2020	SLLA	Pollutant table from 503.13	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (alt #)
TX0088153	7/31/2019	SLLA	Description of pathogen option used	NODI=9
TX0088153	7/31/2020	SLLA	Description of pathogen option used	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (alt #)
TX0088153	7/31/2019	SLLA	Vector attraction reduction alternative used	NODI=9
TX0088153	7/31/2020	SLLA	Vector attraction reduction alternative used	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MX VALUE (state class)
TX0088153	7/31/2019	SLLA	Level of pathogen requirements achieved	NODI=9
TX0088153	7/31/2020	SLLA	Level of pathogen requirements achieved	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MAXIMUM (MPN/g)
TX0088153	7/31/2019	SLLY	Fecal coliform	NODI=9
TX0088153	7/31/2020	SLLY	Fecal coliform	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				MAXIMUM (MPN/g)
TX0088153	7/31/2019	SLLY	Salmonella	NODI=9
TX0088153	7/31/2020	SLLY	Salmonella	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				ALLWCONC (mg/kg)	SINGSAMP (mg/kg)
TX0088153	7/31/2019	SLSA	Arsenic, dry weight	NODI=9	NODI=9
TX0088153	7/31/2020	SLSA	Arsenic, dry weight	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (acr)

TX0088153	7/31/2019	SLSA	Boundary areas	NODI=9
TX0088153	7/31/2020	SLSA	Boundary areas	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				ALLWCONC (mg/kg)	SINGSAMP (mg/kg)
TX0088153	7/31/2019	SLSA	Chromium, sludge, total, dry weight [as Cr]	NODI=9	NODI=9
TX0088153	7/31/2020	SLSA	Chromium, sludge, total, dry weight [as Cr]	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (alt #)
TX0088153	7/31/2019	SLSA	Description of pathogen option used	NODI=9
TX0088153	7/31/2020	SLSA	Description of pathogen option used	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				ALLWCONC (mg/kg)	SINGSAMP (mg/kg)
TX0088153	7/31/2019	SLSA	Nickel, total [as Ni]	NODI=9	NODI=9
TX0088153	7/31/2020	SLSA	Nickel, total [as Ni]	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				SINGSAMP (SU)
TX0088153	7/31/2019	SLSA	pH	NODI=9
TX0088153	7/31/2020	SLSA	pH	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (N=0;Y=1)
TX0088153	7/31/2019	SLSA	Unit w/liner/leachate collection system	NODI=9
TX0088153	7/31/2020	SLSA	Unit w/liner/leachate collection system	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				VALUE (alt #)
TX0088153	7/31/2019	SLSA	Vector attraction reduction alternative used	NODI=9
TX0088153	7/31/2020	SLSA	Vector attraction reduction alternative used	NODI=9

EPA ID				Reported Measure
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	Monitoring Period	Outfall	Parameter	SINGSAMP (state class)
TX0088153	7/31/2019	SLSA	Level of pathogen requirements achieved	NODI=9
TX0088153	7/31/2020	SLSA	Level of pathogen requirements achieved	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>83	>83
TX0088153	9/30/2019	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>83	>83
TX0088153	3/31/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	6/30/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	9/30/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	12/31/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	3/31/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	6/30/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	9/30/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	12/31/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	3/31/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	6/30/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	9/30/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	12/31/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	3/31/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	6/30/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	9/30/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	12/31/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100
TX0088153	3/31/2024	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Ceriodaphn	>100	>100

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>83	>83
TX0088153	9/30/2019	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>83	>83
TX0088153	3/31/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	6/30/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	9/30/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	12/31/2020	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	3/31/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100

TX0088153	6/30/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	9/30/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	12/31/2021	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	3/31/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	6/30/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	9/30/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	12/31/2022	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	3/31/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	6/30/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	9/30/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	12/31/2023	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100
TX0088153	3/31/2024	TX1Q	IC25 Lethal Static Renewal 7 Day Chronic Pimephales	>100	>100

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (pass=0;fail=1)	MO AV MN (pass=0;fail=1)
TX0088153	6/30/2019	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2019	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2024	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (pass=0;fail=1)	MO AV MN (pass=0;fail=1)

TX0088153	6/30/2019	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2019	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2020	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2021	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2022	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	6/30/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	9/30/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	12/31/2023	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0
TX0088153	3/31/2024	TX1Q	IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day	0	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (pass=0;fail=1)	MO AV MN (pass=0;fail=1)
TX0088153	6/30/2019	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2019	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0

TX0088153	9/30/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2024	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (pass=0;fail=	MO AV MN (pass=0;fail=1)
TX0088153	6/30/2019	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2019	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2020	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2021	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2022	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	6/30/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	9/30/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	12/31/2023	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0
TX0088153	3/31/2024	TX1Q	IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7	0	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>83	>83
TX0088153	9/30/2019	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>83	>83
TX0088153	3/31/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	6/30/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	9/30/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	12/31/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	3/31/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	6/30/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	9/30/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100

TX0088153	12/31/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	3/31/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	6/30/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	9/30/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	12/31/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	3/31/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	6/30/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	9/30/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	12/31/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100
TX0088153	3/31/2024	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Period	>100	>100

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>83	>83
TX0088153	9/30/2019	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>83	>83
TX0088153	3/31/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	6/30/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	9/30/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	12/31/2020	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	3/31/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	6/30/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	9/30/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	12/31/2021	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	3/31/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	6/30/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	9/30/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	12/31/2022	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	3/31/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	6/30/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	9/30/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	12/31/2023	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100
TX0088153	3/31/2024	TX1Q	IC25 Sub-Lethal Static Renewal 7 Day Chronic Pimep	>100	>100

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (pass=0;fail=1)	MO AV MN (pass=0;fail=1)
TX0088153	6/30/2019	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	9/30/2019	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9

TX0088153	3/31/2020	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	6/30/2020	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	9/30/2020	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	12/31/2020	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	3/31/2021	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	6/30/2021	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	9/30/2021	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	12/31/2021	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	3/31/2022	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	6/30/2022	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	9/30/2022	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	12/31/2022	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	3/31/2023	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	6/30/2023	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	9/30/2023	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	12/31/2023	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9
TX0088153	3/31/2024	TX1Q	Whole effluent toxicity - retest #1	NODI=9	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (pass=0;fail=1)	MO AV MN (pass=0;fail=1)
TX0088153	6/30/2019	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	9/30/2019	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	3/31/2020	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	6/30/2020	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	9/30/2020	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	12/31/2020	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	3/31/2021	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	6/30/2021	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	9/30/2021	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	12/31/2021	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	3/31/2022	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	6/30/2022	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	9/30/2022	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	12/31/2022	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	3/31/2023	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	6/30/2023	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	9/30/2023	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
TX0088153	12/31/2023	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9

TX0088153	3/31/2024	TX1Q	Whole effluent toxicity - retest #2	NODI=9	NODI=9
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EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	3/31/2020	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	6/30/2020	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	9/30/2020	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	12/31/2020	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	3/31/2021	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	6/30/2021	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	9/30/2021	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	12/31/2021	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	3/31/2022	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	6/30/2022	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	9/30/2022	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	12/31/2022	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	3/31/2023	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	6/30/2023	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	9/30/2023	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	12/31/2023	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100
TX0088153	3/31/2024	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>100	>100

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>83	>83
TX0088153	9/30/2019	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>83	>83
TX0088153	3/31/2020	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	6/30/2020	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	9/30/2020	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	12/31/2020	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	3/31/2021	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	6/30/2021	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	9/30/2021	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	12/31/2021	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	3/31/2022	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	6/30/2022	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	9/30/2022	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100

TX0088153	12/31/2022	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	3/31/2023	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	6/30/2023	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	9/30/2023	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	12/31/2023	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100
TX0088153	3/31/2024	TX1Q	Whole Effluent Toxicity [WET] - P. promelas	>100	>100

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>83	>83
TX0088153	9/30/2019	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>83	>83

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure	Reported Measure
				7 DA MIN (%)	MO AV MN (%)
TX0088153	6/30/2019	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>83	>83
TX0088153	9/30/2019	TX1Q	Whole Effluent Toxicity [WET] - C. dubia	>83	>83

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				SINGSAMP (pass=0;fail=1)
TX0088153	6/30/2019	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	6/30/2020	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	12/31/2020	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	6/30/2021	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	12/31/2021	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	6/30/2022	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	12/31/2022	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	6/30/2023	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0
TX0088153	12/31/2023	TXAS	LC50 Pass/Fail Static 24Hr Acute D. Pulex	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				SINGSAMP (pass=0;fail=1)
TX0088153	6/30/2019	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promelas	0
TX0088153	6/30/2020	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promelas	0
TX0088153	12/31/2020	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promelas	0

TX0088153	6/30/2021	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promela	0
TX0088153	12/31/2021	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promela	0
TX0088153	6/30/2022	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promela	0
TX0088153	12/31/2022	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promela	0
TX0088153	6/30/2023	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promela	0
TX0088153	12/31/2023	TXAS	LC50 Pass/Fail Static 24Hr Acute Pimephales promela	0

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				SINGSAMP (pass=0;fail=1)
TX0088153	6/30/2019	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	6/30/2020	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	12/31/2020	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	6/30/2021	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	12/31/2021	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	6/30/2022	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	12/31/2022	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	6/30/2023	TXAS	Whole effluent toxicity - retest #1	NODI=9
TX0088153	12/31/2023	TXAS	Whole effluent toxicity - retest #1	NODI=9

EPA ID	Monitoring Period	Outfall	Parameter	Reported Measure
				SINGSAMP (pass=0;fail=1)
TX0088153	6/30/2019	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	6/30/2020	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	12/31/2020	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	6/30/2021	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	12/31/2021	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	6/30/2022	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	12/31/2022	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	6/30/2023	TXAS	Whole effluent toxicity - retest #2	NODI=9
TX0088153	12/31/2023	TXAS	Whole effluent toxicity - retest #2	NODI=9

Senate Bill 709 (84th Legislative Session, 2015) amended the Texas Water Code by adding new Section 5.5553, which requires the Texas Commission on Environmental Quality (TCEQ) to provide written notice to you at least thirty (30) days prior to the TCEQ's issuance of draft permits for applications that are located in your district.

City of Houston, 10500 Bellaire Boulevard, Houston, Texas 77072, has applied to the TCEQ to renew Texas Pollutant Discharge Elimination System Permit No. WQ0010495116 (EPA I.D. No. TX0088153) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 18,000,000 gallons per day. The domestic wastewater treatment facility is located at 13525 West Houston Center Boulevard, near the city of Houston, in Harris County, Texas 77082. The discharge route is from the plant site to Brays Bayou, thence to Houston Ship Channel/ Buffalo Bayou Tidal in Segment No. 1007 of the San Jacinto River Basin. TCEQ received this application on May 10, 2024. The permit application will be available for viewing and copying at Houston Public Works, Wastewater Operations Building, 10500 Bellaire Boulevard, Houston, in Harris County, Texas. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.590833,29.716944&level=18>

TCEQ is preparing the initial draft permit. At the time the draft permit is issued, the applicant will be required to publish notice in a newspaper of general circulation, and the TCEQ will provide a copy of the notice of draft permit to persons who have requested to be on a mailing list.

Questions regarding this application may be directed to Mr. Deba Dutta by calling 512-239-4608.

Issuance Date: _____

TCEQ Interoffice Memorandum

To: Municipal Permits Team
Wastewater Permitting Section

Thru: Josi Robertson, Water Quality Assessment Team
Water Quality Assessment Section

From: Sarah Musgrove, Water Quality Assessment Team
Water Quality Assessment Section

Date: July 24, 2024

Subject: City of Houston
Wastewater Permit No. WQ0010495116
Critical Conditions Recommendation Memo

The following information applies to **Outfall 001**.

The TexTox menu number is **3** for a perennial freshwater ditch, stream, or river.

This discharge is to **Brays Bayou**.

Segment No. (freshwater)	1014
Effluent Flow for Aquatic Life (MGD)	18.0 (Permitted)
Critical Low Flow [7Q2] (cfs)	7.70
Effluent Flow for Human Health (MGD)	18.0 (Permitted)
Harmonic Mean Flow (cfs)	17.97
Public Water Supply?	No

Human Health criteria apply for Fish Only.

The chronic aquatic life mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge. Chronic toxic criteria apply at the edge of the chronic aquatic life mixing zone.

This discharge is into a freshwater body that flows into a saltwater segment. Therefore, data from a representative freshwater segment is recommended for screening the freshwater portion of the discharge route. **Use Segment No. 1014 values for pH, TSS, hardness, and chloride** for the evaluation of the immediate receiving waters.

OUTFALL LOCATION¹

Outfall Number	Latitude	Longitude
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Commented [JR1]: Separate lines for Permittee name and permit number

Commented [JR2]: Only include name of the waterbody the information in the table applies to.

Commented [JR3]: One thing I forgot to mention is that for instances like this (where you need to use a freshwater segment substitute) double check that the segment you use is not listed on the current 303(d) list (ie list of impaired segments) for pH, TSS, hardness, or chloride.

Current 303d list - <https://www.tceq.texas.gov/downloads/water-quality/assessment/integrated-report-2022/2022-303d.pdf>

Commented [JR4]: The most recent memo templates are located in the CurrentMenuShells folder. (L:/CRITCOND/CurrentMenuShells)

TCEQ Interoffice Memorandum

001

29.716756 N

95.588915 W

¹ Latitude and Longitude values are approximations of the location for administrative purposes.

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:	City of Houston (Upper Brays WWTF)
Permit Number, Outfall:	10495-116
Segment Number:	1007 Houston Ship Channel (using 1014)

Enter values needed for screening:		Data Source (edit if different)
QE - Average effluent flow	18 MGD	
QS - Perennial stream harmonic mean flow	17.97 cfs	critical conditions memo
QE - Average effluent flow	27.8501 cfs	Calculated
CA - TDS - ambient segment concentration	386 mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	64 mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	23 mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	600 mg/L	2022 TSWQS, Appendix A
CC - chloride - segment criterion	110 mg/L	2022 TSWQS, Appendix A
CC - sulfate - segment criterion	65 mg/L	2022 TSWQS, Appendix A
CE - TDS - average effluent concentration	578 mg/L	Permit application
CE - chloride - average effluent concentration	97.2 mg/L	Permit application
CE - sulfate - average effluent concentration	60 mg/L	Permit application

Screening Equation

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

Preliminary Calculations	Load in River QSCA	Effluent Load QECE	New Concentration Equation 2	% Change in Ambient	% Change in Assim. Capacity
Parameter					
TDS	6936.42	16097.38	502.70	30.2	54.5
Chloride	1150.08	2707.034	84.18	31.5	43.9
Sulfate	413.31	1671.008	45.49	97.8	53.5

No further screening for TDS needed if:	502.70	≤	600
No further screening for chloride needed if:	84.18	≤	110
No further screening for sulfate needed if:	45.49	≤	65

Permit Limit Calculations

TDS

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	738.08
Calculate the LTA	LTA = WLA * 0.93	686.42
Calculate the daily average	Daily Avg. = LTA * 1.47	1009.03
Calculate the daily maximum	Daily Max. = LTA * 3.11	2134.75
Calculate 70% of the daily average	70% of Daily Avg. =	706.32
Calculate 85% of the daily average	85% of Daily Avg. =	857.68
No permit limitations needed if:	578 ≤ 706.32	
Reporting needed if:	578 > 706.32	but ≤ 857.68
Permit limits may be needed if:	578 > 857.68	

No permit limitations needed for TDS

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Chloride

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	139.68
Calculate the LTA	$LTA = WLA * 0.93$	129.90
Calculate the daily average	$Daily\ Avg. = LTA * 1.47$	190.96
Calculate the daily maximum	$Daily\ Max. = LTA * 3.11$	404.00
Calculate 70% of the daily average	70% of Daily Avg. =	133.67
Calculate 85% of the daily average	85% of Daily Avg. =	162.31
No permit limitations needed if:	97.2 ≤ 133.67	
Reporting needed if:	97.2 > 133.67	but ≤ 162.31
Permit limits may be needed if:	97.2 > 162.31	

No permit limitations needed for chloride

Sulfate

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	92.10
Calculate the LTA	$LTA = WLA * 0.93$	85.65
Calculate the daily average	$Daily\ Avg. = LTA * 1.47$	125.91
Calculate the daily maximum	$Daily\ Max. = LTA * 3.11$	266.38
Calculate 70% of the daily average	70% of Daily Avg. =	88.14
Calculate 85% of the daily average	85% of Daily Avg. =	107.02
No permit limitations needed if:	60 ≤ 88.14	
Reporting needed if:	60 > 88.14	but ≤ 107.02
Permit limits may be needed if:	60 > 107.02	

No permit limitations needed for sulfate

TCEQ Interoffice Memorandum

To: Municipal Permits Team
Wastewater Permitting Section

From: Josi Robertson
Water Quality Assessment Team
Water Quality Assessment Section

Date: August 7, 2024

Subject: City of Houston
Permit Renewal (WQ0010495116, TX0088153)
Discharge to a tributary of the Houston Ship Channel (Segment No. 1007)

The referenced applicant is proposing to renew its permit authorizing the discharge of 18 MGD of treated domestic wastewater into the watershed of the Houston Ship Channel (Segment No. 1007). The facility is located in Harris County.

The existing effluent limits have been reviewed for consistency with the minimum treatment recommendations contained in the *Waste Load Evaluation WLE-1R for the Houston Ship Channel System* (September 2006).

The existing permitted effluent set of **10 mg/L CBOD₅, 3 mg/L NH₃-N (April-October), 5 mg/L NH₃-N (November-March), and 4.0 mg/L DO** is consistent with WLE-1R.

Segment No. 1007 is currently listed on the State's inventory of impaired and threatened waters (the **2022** Clean Water Act Section 303(d) list). The listings are for dioxin in edible tissue and PCBs in edible tissue in Houston Ship Channel (HSC) from a point immediately upstream of Greens Bayou Tidal to immediately upstream of the 69th Street WWTP outfall (AU 1007_01), Sims Bayou Tidal from the HSC confluence to a point 11 km (6.8 mi) upstream (AU 1007_02), Hunting Bayou Tidal from the HSC confluence to IH-10 (AU 1007_03), Brays Bayou Tidal from the HSC confluence to downstream of IH-45 (AU 1007_04), Vince Bayou Tidal from the HSC confluence to SH 225 (AU 1007_05), Berry Bayou from the HSC confluence to a point 2.4 km (1.5 mi) upstream of the Sims Bayou confluence (AU1007_06), Buffalo Bayou from immediately upstream of 69th Street WWTP outfall to US 59 (AU 1007_07) and Little Vince Bayou Tidal from the Vince Bayou confluence to SH 225 (AU 1007_08). Segment No. 1007 is also listed for bacteria in water and toxicity in sediment in Vince Bayou Tidal from the HSC confluence to SH 225 (AU 1007_05).

The TMDL project *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System* (TMDL Project No.1) **has been withdrawn and is no longer applicable.**

The TMDL project *Five Total Maximum Daily Loads for Indicator Bacteria in Brays Bayou Above Tidal and Tributaries* (TMDL Project No.72D) has been approved for this segment.

The effluent limits recommended above have been reviewed for consistency with the State of Texas Water Quality Management Plan (WQMP). The recommended limits are consistent with the approved WQMP.

TCEQ Interoffice Memorandum

To: Municipal Permits Team
Wastewater Permitting Section

From: Michael B. Pfeil, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division

Date: August 7, 2024

Subject: City of Houston
Upper Brays WWTP
Permit No. WQ0010495116

WHOLE EFFLUENT TOXICITY (WET) TESTING (BIOMONITORING)

The following information applies to Outfall 001. We recommend freshwater chronic and 24-hour acute testing. For chronic testing, we recommend the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) as test species and a testing frequency of once per quarter for both test species. We recommend a dilution series of 27%, 35%, 47%, 63%, and 100% with a critical dilution of 63%. The critical dilution is in accordance with the “Aquatic Life Criteria” section of the “Water Quality Based Effluent Limitations/ Conditions” section.

For 24-hour acute testing, we recommend a water flea (*Ceriodaphnia dubia* or *Daphnia pulex*) and the fathead minnow as test species and a testing frequency of once per six months for both test species. In the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant mortality (i.e., zero failures).

REASONABLE POTENTIAL (RP) DETERMINATION

The sublethal WET limits of 70% are retained. Therefore, a reasonable potential determination was not performed. Due to no WET limit violations in the past three years, both test species are eligible for the testing frequency reduction.

TCEQ Interoffice Memorandum

To: Municipal Permits Team
Wastewater Permitting Section

From: Michael B. Pfeil, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division

Date: April 21, 2025

Subject: City of Houston
Upper Brays WWTP
Permit No. WQ0010495116

This memo supersedes and replaces the one dated August 7, 2024.

WHOLE EFFLUENT TOXICITY (WET) TESTING (BIOMONITORING)

The following information applies to Outfall 001. We recommend freshwater chronic and 24-hour acute testing. For chronic testing, we recommend the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) as test species and a testing frequency of once per quarter for both test species. We recommend a dilution series of 33%, 44%, 59%, 78%, and 100% with a critical dilution of 78%. The critical dilution is in accordance with the “Aquatic Life Criteria” section of the “Water Quality Based Effluent Limitations/ Conditions” section.

For 24-hour acute testing, we recommend a water flea (*Ceriodaphnia dubia* or *Daphnia pulex*) and the fathead minnow as test species and a testing frequency of once per six months for both test species. In the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant mortality (i.e., zero failures).

REASONABLE POTENTIAL (RP) DETERMINATION

The sublethal WET limits are retained. Therefore, a reasonable potential determination was not performed. Due to no WET limit violations in the past three years, both test species are eligible for the testing frequency reduction.

TCEQ Interoffice Memorandum

To: Municipal Permits Team
Wastewater Permitting Section

From: Michelle Labrie, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division

Date: June 10, 2024

Subject: City of Houston (Upper Brays WWTF)
Permit no. 10495-116
Renewal; Application received: 5/10/2024

The discharge route for the above referenced permit is to Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal in Segment 1007 of the San Jacinto River Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code §307.10) for Segment 1007 are navigation and industrial uses, and 1.0 mg/L dissolved oxygen.

Since the discharge is directly to an unclassified water body, the permit action was reviewed in accordance with 30 Texas Administrative Code §307.4(h) and (l) of the 2022 Texas Surface Water Quality Standards and the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010). Based on available information, a preliminary determination of the aquatic life uses in the area of the discharge impact has been performed and the corresponding dissolved oxygen criterion assigned.

Brays Bayou; limited aquatic life use; 3.0 mg/L dissolved oxygen.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

TCEQ Interoffice Memorandum

To: Municipal Permits Team
Wastewater Permitting Section

From: Michelle Labrie, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division

Date: April 16, 2025

Subject: City of Houston (Upper Brays WWTF)
Permit no. 10495-116
Renewal; Application received: 5/10/2024

This memo supersedes the one dated June 10, 2024.

The discharge route for the above referenced permit is to Brays Bayou, thence to Houston Ship Channel/Buffalo Bayou Tidal in Segment 1007 of the San Jacinto River Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code §307.10) for Segment 1007 are navigation and industrial uses, and 1.0 mg/L dissolved oxygen.

Based on the total dissolved solids screening, no additional limits or monitoring requirements are needed for TDS, chloride, or sulfate.

Since the discharge is directly to an unclassified water body, the permit action was reviewed in accordance with 30 Texas Administrative Code §307.4(h) and (l) of the 2022 Texas Surface Water Quality Standards and the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010). Based on available information, a preliminary determination of the aquatic life uses in the area of the discharge impact has been performed and the corresponding dissolved oxygen criterion assigned.

Brays Bayou; limited aquatic life use; 3.0 mg/L dissolved oxygen.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.