Administrative Package Cover Page

This file contains the following documents:

1. Summary of application (in plain language)
   - English
   - Alternative Language (Spanish)
2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
   - English
   - Alternative Language (Spanish)
3. Application materials

Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
   - Inglés
   - Idioma alternativo (español)
2. Primer aviso (NORI, el Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
   - Inglés
   - Idioma alternativo (español)
3. Solicitud original

Harris County MUD No. 200
Renewal with Major Amendment – Plain Language Summary

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

Harris County Municipal Utility District No. 200 (CN600740468) operates the HCMUD No. 200 wastewater treatment facility (RN102849288), an activated sludge process plant operated in the complete mix mode. The facility is located at 13050 Stonefield Drive, in Harris County, Texas 77014.

This application is for a renewal with major amendment to increase the annual average flow of 1,440,000 gallons per day to 1,900,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, aeration basins, final clarifiers, sludge digesters, chlorine contact chambers and a dechlorination chamber.

Harris County MUD No. 200
Renewal with Major Amendment – Plain Language Summary

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.

El Distrito Municipal de Servicios Públicos No. 200 del Condado de Harris (CN600740468) opera la instalación de tratamiento de aguas residuales HCMUD No. 200 (RN102849288), una planta de proceso de lodos activados que opera en modo de mezcla completa. La instalación está ubicada en 13050 Stonefield Drive, en el condado de Harris, Texas 77014.

Esta solicitud es para una renovación con enmienda importante para aumentar el flujo promedio anual de 1,440,000 galones por día a 1,900,000 galones por día de aguas residuales domésticas tratadas.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbonoso ($CBOD_5$) de cinco días, sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH_3-N) y Escherichia coli. Se incluyen contaminantes potenciales adicionales en el Informe Técnico Nacional 1.0, Sección 7. Análisis de Contaminantes del Efluente Tratado y Hoja de Trabajo Doméstico 4.0 en el paquete de solicitud de permiso. Las aguas residuales domésticas son tratadas mediante una planta de proceso de lodos activados y las unidades de tratamiento incluyen criba de barras, balsas de aireación, clarificadores finales, digestores de lodos, cámaras de contacto de cloro y cámara de decloración.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0012294001

APPLICATION. Harris County Municipal Utility District No. 200, 1300 Post Oak Boulevard, Suite 2400, Houston, Texas 77056, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0012294001 (EPA I.D. No. TX0085413) to authorize an increase to the discharge of treated wastewater to a volume not to exceed an annual average flow of 1,900,000 gallons per day and relocation of the outfall approximately 140 feet upstream**.** The domestic wastewater treatment facility is located at 13050 Stonefield Drive, near the city of Houston, in Harris County, Texas 77014. The discharge route is from the plant site to a Harris County Flood Control District ditch, thence to Greens Bayou Above Tidal. TCEQ received this application on June 6, 2024. The permit application will be available for viewing and copying at Aldine Branch Library, 11331 Airline Drive, Houston, in Harris County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. 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=-95.430404,29.972868&level=18

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a

public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

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

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

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

AGENCY CONTACTS AND INFORMATION. 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 Harris County Municipal Utility District No. 200 at the address stated above or by calling Mr. Jonathan Nguyen, Quiddity Engineering, at 512-685-5156.

Issuance Date: July 8, 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
MODIFICACION

PERMISO NO. WQ0012294001

SOLICITUD. Distrito de Servicios Públicos Municipales No. 200 del Condado de Harris, 1300 Post Oak Boulevard, Suite 2400, Houston, Texas 77056, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0012294001 (EPA I.D. No. TX0085413) 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 diario de 1,900,000 galones por día. La planta está ubicada 13050 Stonefield Drive, cerca de la ciudad de Houston, en el condado de Harris, Texas 77014. La ruta de descarga es del sitio de la planta a una zanja del Distrito de Control de Inundaciones del Condado de Harris, de allí a Greens Bayou Above Tidal. La TCEQ recibió esta solicitud el 6 de junio de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en Biblioteca sucursal de Aldine, 11331 Airline Drive, Houston, en el condado de Harris, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.
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=-95.430404,29.972868&level=18

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

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

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

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

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

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

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

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

indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado especifico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía http://www14.tceq.texas.gov/epic/eComment/ o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener más información del Distrito de Servicios Públicos Municipales No. 200 del Condado de Harris en la dirección indicada anteriormente o llamando al Sr. Jonathan Nguyen, Quiddity Engineering, al 512-685-5156.

Fecha de emisión el 8 de julio de 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Harris County MUD No. 200

PERMIT NUMBER (If new, leave blank): WQ00 WQ0012294001

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

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

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 ☐	$315.00 ☐
≥0.05 but <0.10 MGD	$550.00 ☐	$515.00 ☐
≥0.10 but <0.25 MGD	$850.00 ☐	$815.00 ☐
≥0.25 but <0.50 MGD	$1,250.00 ☐	$1,215.00 ☐
≥0.50 but <1.0 MGD	$1,650.00 ☐	$1,615.00 ☐
≥1.0 MGD	$2,050.00 ☒	$2,015.00 ☐

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: 6234

Check/Money Order Amount: $2,050

Name Printed on Check: HCMUD 200 STP Fund

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: increase final phase flow to 1.9 MGD with an interim phase of 1.6 MGD and relocate the outfall 140 feet upstream for the new phases

f. For existing permits:

Permit Number: WQ00 12294001

EPA I.D. (TPDES only): TX 0085413

Expiration Date: February 10, 2026

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

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

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

Harris County MUD No. 200

(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: 600740468

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: Wright, James

Title: President Credential: Click to enter text.

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?

N/A

(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: **N/A**

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: **N/A** Last Name, First Name: **N/A**

Title: **N/A** Credential: **N/A**

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

C. Core Data Form

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

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: Nguyen, Jonathan

Title: Permitting Specialist Credential: Click to enter text.

Organization Name: Quiddity Engineering

Mailing Address: 3100 Alvin Devane Blvd, Suite 150 City, State, Zip Code: Austin, TX 78741

Phone No.: 512-685-5156 E-mail Address: jnguyen@quiddity.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix: Miss Last Name, First Name: Troy, Michelle

Title: Senior Project Manager Credential: PE

Organization Name: Quiddity Engineering

Mailing Address: 4500 Mercantile Plaza Dr, Suite 210 City, State, Zip Code: Fort Worth, TX 76137

Phone No.: 682-268-2202 E-mail Address: mtroy@quiddity.com

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: Wright, James

Title: President Credential: Click to enter text.

Organization Name: HCMUD No. 200

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: 713-623-4531 E-mail Address: gfree@sphllp.com

B. Prefix: Miss Last Name, First Name: Smith, Yvonne

Title: Secretary Credential: Click to enter text.

Organization Name: HCMUD No. 200

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: 713-623-4531 E-mail Address: gfree@sphllp.com

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: Leggett, Tyler

Title: Bookkeeper Credential: Click to enter text.

Organization Name: Municipal Accounts & Consulting, LP

Mailing Address: 1281 Brittmoore Road City, State, Zip Code: Houston, TX 77043

Phone No.: 713-623-4539 E-mail Address: tleggett@municipalaccounts.com

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: Wright, Lonnie

Title: Operator Credential: Click to enter text.

Organization Name: Municipal Operators & Consulting

Mailing Address: 20141 Schiel Road City, State, Zip Code: Cypress, TX 77433

Phone No.: 281-367-5511 E-mail Address: lwright@municipalops.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mr. Last Name, First Name: Nguyen, Jonathan

Title: Permitting Specialist Credential: Click to enter text.

Organization Name: Quiddity Engineering

Mailing Address: 3100 Alvin Devane Blvd, Suite 150 City, State, Zip Code: Austin, TX 78741

Phone No.: 512-685-5156 E-mail Address: jnguyen@quiddity.com

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

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

☒ E-mail Address

☐ Fax

☐ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr. Last Name, First Name: Nguyen, Jonathan

Title: Click to enter text. Credential: Click to enter text.

Organization Name: Quiddity Engineering

Mailing Address: 3100 Alvin Devane Blvd, Suite 150 City, State, Zip Code: Austin, TX 78741

Phone No.: 512-685-5156 E-mail Address: jnguyen@quiddity.com

D. Public Viewing Information

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

Public building name: Aldine Branch Library

Location within the building: Click to enter text.

Physical Address of Building: 11331 Airline Drive

City: Houston County: Harris

Contact (Last Name, First Name): Click to enter text.

Phone No.: 832-927-5410 Ext.: Click to enter text.

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 B

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: Attachment C

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** 102849288

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):

HCMUD No. 200 WWTP

C. Owner of treatment facility: HCMUD No. 200

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: HCMUD 200

Mailing Address: 1300 Post Oak Blvd, Suite 2400 City, State, Zip Code: Houston, TX 77056

Phone No.: 713-623-4531 E-mail Address: gfree@sphllp.com

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

E. Owner of effluent disposal site:

Prefix: **N/A** Last Name, First Name: **N/A**

Title: **N/A** Credential: **N/A**

Organization Name: **N/A**

Mailing Address: **N/A** City, State, Zip Code: **N/A**

Phone No.: **N/A** E-mail Address: **N/A**

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

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

Prefix: **N/A** Last Name, First Name: **N/A**

Title: **N/A** Credential: **N/A**

Organization Name: **N/A**

Mailing Address: **N/A** City, State, Zip Code: **N/A**

Phone No.: **N/A** E-mail Address: **N/A**

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

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:

N/A

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:

Outfall is relocating 140 feet upstream. Discharge route will remain the same.

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: N/A

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: **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:

N/A

B. City nearest the disposal site: **N/A**

C. County in which the disposal site is located: **N/A**

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

N/A

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

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

B. If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

☐ 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.

N/A

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

☒ Yes ☐ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application: Jonathan Nguyen

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: **N/A**

Amount past due: **N/A**

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: **N/A**

Amount past due: **N/A**

Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify: See List of Attachments

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0012294001

Applicant: HCMUD No. 200

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): Mr. James Wright

Signatory title: President

Signature: James Wright Date: 5/28/24

(Use blue ink)

Subscribed and Sworn to before me by the said James Wright

on this 28th day of May, 2024.

My commission expires on the 9th day of October, 2024.

Gordon C. Cranner

Notary Public

GORDON C. CRANNER
NOTARY ID #13272029
My Commission Expires
October 09, 2024

[SEAL]

Harris

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

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

- ☒ The applicant's property boundaries
- ☒ The facility site boundaries within the applicant's property boundaries
- ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- ☒ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☐ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☐ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

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

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

☐ USB Drive ☒ Four sets of labels

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

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

☐ Yes ☒ No

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

N/A

Section 2. Original Photographs (Instructions Page 38)

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

☒ At least one original photograph of the new or expanded treatment unit location

☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☐ At least one photograph of the existing/proposed effluent disposal site

☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 38)

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

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

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

☐ Ownership

☒ Restrictive easement

☐ Nuisance odor control

☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☒ Yes ☐ No

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 D

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): 1.44

2-Hr Peak Flow (MGD): 5.76

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: 1990

B. Interim II Phase

Design Flow (MGD): 1.60

2-Hr Peak Flow (MGD): 6.40

Estimated construction start date: 7/2026

Estimated waste disposal start date: 7/2028

C. Final Phase

Design Flow (MGD): 1.90

2-Hr Peak Flow (MGD): 7.60

Estimated construction start date: 2/2030

Estimated waste disposal start date: 2/2031

D. Current Operating Phase

Provide the startup date of the facility: 1990

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.**

See Attachment K – Supplemental Technical Report

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for *all* phases of operation.**

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
See Attachment K		

C. Process Flow Diagram

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

Attachment: Attachment L

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

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

- Latitude: Current – 29.972612; Proposed 29.972861
- Longitude: Current - -95.723772; Proposed 95.431394

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 M

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

The plant serves Harris County MUD No. 200 and HCMUD No. 215.

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
HCMUD 200	HCMUD 200	Publicly Owned	15,239

Section 4. Unbuilt Phases (Instructions Page 45)

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

N/A

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.

RBC, RBC chlorine contact tank, and dechlorination basin will be abandoned in place.

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: 1989

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**.

Summary transmittal letters will be approved for future phases.

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.

Restrictive easements will be needed for future phases.

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*.

N/A

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

N/A

3. Grit disposal

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

☐ Yes ☐ No

If No, contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. Grease and decanted liquid disposal

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

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

N/A

E. Stormwater management

1. Applicability

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

2. MSGP coverage

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

☒ Yes ☐ No

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

TXR05 Q408 or TXRNE Click to enter text.

If no, do you intend to seek coverage under TXR050000?

☐ Yes ☐ No

3. Conditional exclusion

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

☐ Yes ☒ No

If yes, please explain below then proceed to Subsection F, Other Wastes Received:

N/A

4. Existing coverage in individual permit

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

☐ Yes ☒ No

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

N/A

5. Zero stormwater discharge

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

☐ Yes ☒ No

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

N/A

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

6. Request for coverage in individual permit

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

☐ Yes ☒ No

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

N/A

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
N/A

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

N/A

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

2. ***Acceptance of septic waste***

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

If yes to any of the above, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the septic waste, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

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

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

☐ Yes ☒ No

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

N/A

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

Is the facility in operation?

☒ Yes ☐ No

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

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

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

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l	15.8	15.8	1	Comp	3/7/2024 @ 05:00
Total Suspended Solids, mg/l	8.63	8.63	1	Comp	3/7/2024 @ 05:00
Ammonia Nitrogen, mg/l	18.8	18.8	1	Comp	3/7/2024 @ 05:00
Nitrate Nitrogen, mg/l	4280	4280	1	Comp	3/7/2024 @ 05:00
Total Kjeldahl Nitrogen, mg/l	21.8	21.8	1	Comp	3/7/2024 @ 05:00
Sulfate, mg/l	29.5	29.5	1	Comp	3/7/2024 @ 05:00
Chloride, mg/l	71.6	71.6	1	Comp	3/7/2024 @ 05:00
Total Phosphorus, mg/l	3.71	3.71	1	Comp	3/7/2024 @ 05:00
pH, standard units	7.27	7.27	1	Grab	3/7/2024 @ 08:35
Dissolved Oxygen*, mg/l	8.16	8.16	1	Grab	3/7/2024 @ 08:35
Chlorine Residual, mg/l	2.60	2.60	1	Grab	3/7/2024 @ 08:35
E.coli (CFU/100ml) freshwater	104	104	1	Grab	3/7/2024 @ 08:35
Entercocci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	422	422	1	Comp	3/7/2024 @ 05:00
Electrical Conductivity, µmohs/cm, †	717	717	1	Comp	3/7/2024 @ 05:00
Oil & Grease, mg/l	<5	<5	1	Grab	3/7/2024 @ 08:35
Alkalinity ($CaCO_3$)*, mg/l	172	172	1	Comp	3/7/2024 @ 05:00

*TPDES permits only
†TLAP permits only

Table1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity ($CaCO_3$), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Municipal Operations and Consulting

Facility Operator's License Classification and Level: Click to enter text.

Facility Operator's License Number: OC0000023

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

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☒ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion

☐ Beta Ray Irradiation

☐ Gamma Ray Irradiation

☐ Pasteurization

☐ Preliminary Operation (e.g. grinding, de-gritting, blending)

☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)

☐ Sludge Lagoon

☐ Temporary Storage (< 2 years)

☐ Long Term Storage (>= 2 years)

☐ Methane or Biogas Recovery

☒ Other Treatment Process: Dewatering

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Agricultural Land Application	Off-site Third-Party Handler or Preparer	Bulk	See Attachment Q	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: See Attachment Q

TCEQ permit or registration number: See Attachment Q

County where disposal site is located: See Attachment Q

E. Transportation method

Method of transportation (truck, train, pipe, other): See Attachment Q

Name of the hauler: See Attachment Q

Hauler registration number: See Attachment Q

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal

(Instructions Page 53)

A. Beneficial use authorization

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

B. Sludge processing authorization

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

Sludge Composting	☐ Yes	☒ No
Marketing and Distribution of sludge	☐ Yes	☒ No
Sludge Surface Disposal or Sludge Monofill	☐ Yes	☒ No
Temporary storage in sludge lagoons	☐ Yes	☒ No

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 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: N/A
- USDA Natural Resources Conservation Service Soil Map:

  Attachment: **N/A**
- Federal Emergency Management Map:

  Attachment: **N/A**

- Site map:

  Attachment: **N/A**

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:

N/A

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: **N/A**

Total Kjeldahl Nitrogen, mg/kg: **N/A**

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

Phosphorus, mg/kg: **N/A**

Potassium, mg/kg: **N/A**

pH, standard units: **N/A**

Ammonia Nitrogen mg/kg: **N/A**

Arsenic: **N/A**

Cadmium: **N/A**

Chromium: **N/A**

Copper: **N/A**

Lead: **N/A**

Mercury: **N/A**

Molybdenum: **N/A**

Nickel: **N/A**

Selenium: **N/A**

Zinc: **N/A**

Total PCBs: **N/A**

Provide the following information:

Volume and frequency of sludge to the lagoon(s): **N/A**

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

Total dry tons stored in the lagoons(s) over the life of the unit: **N/A**

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

☐ Yes ☐ No

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

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

  Attachment: **N/A**
- Copy of the closure plan

  Attachment: **N/A**
- Copy of deed recordation for the site

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

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

  Attachment: **N/A**
- Procedures to prevent the occurrence of nuisance conditions

  Attachment: **N/A**

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: N/A

Section 12. Authorizations/Compliance/Enforcement (Instructions

Page 55)

A. Additional authorizations

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

☐ Yes ☒ No

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

N/A

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:

N/A

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

☐ Yes ☒ No

C. Details about wastes received

If yes to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 56)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ; or
  - 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: James Wright

Title: President

Signature: _____

Date: 5/28/24

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

See Attachment N – Justification

B. Regionalization of facilities

For additional guidance, please review TCEQ's Regionalization Policy for Wastewater Treatment[1].

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

1. *Municipally incorporated areas*

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

☐ Yes ☐ No ☒ Not Applicable

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

If yes, attach correspondence from the city.

Attachment: N/A

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: N/A

2. *Utility CCN areas*

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

☐ Yes ☐ No

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

Attachment: **N/A**

[1] https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater

3. Nearby WWTPs or collection systems

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

☐ Yes ☐ No

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

Attachment: **N/A**

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

Attachment: **N/A**

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

Attachment: N/A

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☒ Yes ☐ No

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

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

A. Current organic loading

Facility Design Flow (flow being requested in application): 1.44/1.60/1.90

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 300

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): 4,003/4,754

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

Influent testing

B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading.

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality	N/A	N/A

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Subdivision	N/A	N/A
Trailer park – transient	N/A	N/A
Mobile home park	N/A	N/A
School with cafeteria and showers	N/A	N/A
School with cafeteria, no showers	N/A	N/A
Recreational park, overnight use	N/A	N/A
Recreational park, day use	N/A	N/A
Office building or factory	N/A	N/A
Motel	N/A	N/A
Restaurant	N/A	N/A
Hospital	N/A	N/A
Nursing home	N/A	N/A
Other	N/A	N/A
TOTAL FLOW from all sources	N/A	N/A
AVERAGE BOD_5 from all sources	N/A	N/A

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

A. Existing/Interim I Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: report

Total Phosphorus, mg/l: Click to enter text.

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: Click to enter text.

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: Click to enter text.

Dissolved Oxygen, mg/l: 4.0

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: sulfur dioxide

☐ Ultraviolet Light: Click to enter text. seconds contact time at peak flow

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 59)

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

Attachment: Attachment K

Section 5. Facility Site (Instructions Page 60)

A. 100-year floodplain

Will the proposed facilities be located above the 100-year frequency flood level?

☒ Yes ☐ No

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

N/A

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

See Attachment R

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

☐ Yes ☒ No

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

☐ Yes ☐ No

If yes, provide the permit number: N/A

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

B. Wind rose

Attach a wind rose: Attachment S

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

A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use on property located adjacent to the wastewater treatment facility under the wastewater permit?

☐ Yes ☒ No

If yes, attach the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)**: N/A

B. Sludge processing authorization

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

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

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

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

Attach a solids management plan to the application.

Attachment: Attachment O

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

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

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

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

☐ Yes ☒ No

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

Owner of the drinking water supply: **N/A**

Distance and direction to the intake: **N/A**

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

Attachment: **N/A**

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: **N/A**

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

N/A

C. Sea grasses

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

☐ Yes ☐ No

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

N/A

Section 3. Classified Segments (Instructions Page 64)

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

☐ Yes ☒ No

If yes, this Worksheet is complete.

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

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

Name of the immediate receiving waters: HCFCD Ditch P145-00-00

A. Receiving water type

Identify the appropriate description of the receiving waters.

- ☐ Stream
- ☐ Freshwater Swamp or Marsh
- ☐ Lake or Pond

  Surface area, in acres: 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: Click to enter text.

C. Downstream perennial confluences

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

Greens Bayou

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.

N/A

E. Normal dry weather characteristics

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

Low flowing stream with a small amount of weeds.

Date and time of observation: 9/22/24 @ 08:15

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

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

A. Upstream influences

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

☐ Oil field activities
☒ Urban runoff
☒ Upstream discharges
☐ Agricultural runoff
☐ Septic tanks
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

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

☐ Livestock watering
☐ Contact recreation
☐ Irrigation withdrawal
☒ Non-contact recreation
☐ Fishing
☐ Navigation
☐ Domestic water supply
☐ Industrial water supply
☐ Park activities
☐ Other(s), specify: Click to enter text.

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: 3/6/24 @ 07:40 and 14:20; 3/7/24 @ 05:00 and 08:35; and 3/26/24 @ 05:00

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<50	<50	1	50
Aldrin	<0.004	<0.004	1	0.01
Aluminum	28.1	28.1	1	2.5
Anthracene	<0.35	<0.35	1	10
Antimony	<5	<5	1	5
Arsenic	2.40	2.40	1	0.5
Barium	164	164	1	3
Benzene	<10	<10	1	10
Benzidine	<0.66	<0.66	1	50
Benzo(a)anthracene	<0.38	<0.38	1	5
Benzo(a)pyrene	<0.85	<0.85	1	5
Bis(2-chloroethyl)ether	<0.72	<0.72	1	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	1	10
Bromodichloromethane	<10	<10	1	10
Bromoform	<10	<10	1	10
Cadmium	<1	<1	1	1
Carbon Tetrachloride	<2	<2	1	2
Carbaryl	<2.7	<2.7	1	5
Chlordane*	<0.1	<0.1	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	<10	<10	1	10
Chlorpyrifos	<0.0265	<0.0265	1	0.05
Chromium (Total)	<3	<3	1	3
Chromium (Tri) **(*1)**	<0.003	<0.003	1	N/A
Chromium (Hex)	7.34	7.34	1	3
Copper	10.2	10.2	1	2
Chrysene	<0.57	<0.57	1	5
p-Chloro-m-Cresol	<0.53	<0.53	1	10
4,6-Dinitro-o-Cresol	<0.66	<0.66	1	50
p-Cresol	<1	<1	1	10
Cyanide **(*2)**	<10	<10	1	10
4,4'- DDD	<0.002	<0.002	1	0.1
4,4'- DDE	<0.009	<0.009	1	0.1
4,4'- DDT	<0.004	<0.004	1	0.02
2,4-D	<0.237	<0.237	1	0.7
Demeton (O and S)	<0.0133	<0.0133	1	0.20
Diazinon	<0.0332	<0.0332	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	<0.88	<0.88	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	<0.05	<0.05	1	1
Dieldrin	<0.005	<0.005	1	0.02
2,4-Dimethylphenol	<0.53	<0.53	1	10
Di-n-Butyl Phthalate	<1.2	<1.2	1	10
Diuron	<0.0486	<0.0486	1	0.09

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Endosulfan I (alpha)	<0.007	<0.007	1	0.01
Endosulfan II (beta)	<0.004	<0.004	1	0.02
Endosulfan Sulfate	<0.005	<0.005	1	0.1
Endrin	<0.004	<0.004	1	0.02
Ethylbenzene	<10	<10	1	10
Fluoride	0.302	0.302	1	500
Guthion	<0.0344	<0.0344	1	0.1
Heptachlor	<0.004	<0.004	1	0.01
Heptachlor Epoxide	<0.004	<0.004	1	0.01
Hexachlorobenzene	<0.69	<0.69	1	5
Hexachlorobutadiene	<0.41	<0.41	1	10
Hexachlorocyclohexane (alpha)	<0.003	<0.003	1	0.05
Hexachlorocyclohexane (beta)	<0.004	<0.004	1	0.05
gamma-Hexachlorocyclohexane (Lindane)	<0.004	<0.004	1	0.05
Hexachlorocyclopentadiene	<0.35	<0.35	1	10
Hexachloroethane	<0.47	<0.47	1	20
Hexachlorophene	<2.9	<2.9	1	10
Lead	<0.5	<0.5	1	0.5
Malathion	<0.0137	<0.0137	1	0.1
Mercury	<0.005	<0.005	6	0.005
Methoxychlor	<0.003	<0.003	1	2
Methyl Ethyl Ketone	<50	<50	1	50
Mirex	<0.01	<0.01	1	0.02
Nickel	<2	<2	1	2
Nitrate-Nitrogen	4280	4280	1	100
Nitrobenzene	<0.91	<0.91	1	10
N-Nitrosodiethylamine	<5	<5	1	20
N-Nitroso-di-n-Butylamine	<5	<5	1	20
Nonylphenol	<333	<333	1	333
Parathion (ethyl)	<0.0214	<0.0214	1	0.1
Pentachlorobenzene	<3	<3	1	20
Pentachlorophenol	<0.5	<0.5	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Phenanthrene	<0.44	<0.44	1	10
Polychlorinated Biphenyls (PCB's) **(*3)**	<0.03	<0.03	1	0.2
Pyridine	<0.35	<0.35	1	20
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
1,2,4,5-Tetrachlorobenzene	<5	<5	1	20
1,1,2,2-Tetrachloroethane	<10	<10	1	10
Tetrachloroethylene	<10	<10	1	10
Thallium	<0.5	<0.5	1	0.5
Toluene	<10	<10	1	10
Toxaphene	<0.1	<0.1	1	0.3
2,4,5-TP (Silvex)	<0.239	<0.239	1	0.3
Tributyltin (see instructions for explanation)	N/A	N/A	N/A	0.01
1,1,1-Trichloroethane	<10	<10	1	10
1,1,2-Trichloroethane	<10	<10	1	10
Trichloroethylene	<10	<10	1	10
2,4,5-Trichlorophenol	<0.85	<0.85	1	50
TTHM (Total Trihalomethanes)	<10	<10	1	10
Vinyl Chloride	<10	<10	1	10
Zinc	27	27	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: 3/6/24 @ 07:40 and 14:20; 3/7/24 @ 05:00 and 08:35; and 3/26/24 @ 05:00

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

Pollutant	**AVG Effluent Conc. (µg/l)**	**MAX Effluent Conc. (µg/l)**	**Number of Samples**	**MAL (µg/l)**
Antimony	<5	<5	1	5
Arsenic	2.4	2.4	1	0.5
Beryllium	<0.5	<0.5	1	0.5
Cadmium	<1	<1	1	1
Chromium (Total)	<3	<3	1	3
Chromium (Hex)	7.34	7.34	1	3
Chromium (Tri) **(*1)**	<0.003	<0.003	1	N/A
Copper	10.2	10.2	1	2
Lead	<0.5	<0.5	1	0.5
Mercury	0.005	0.005	6	0.005
Nickel	<2	<2	1	2
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
Thallium	<0.5	<0.5	1	0.5
Zinc	27	27	1	5
Cyanide **(*2)**	<10	<10	1	10
Phenols, Total	<0.44	<0.44	1	10

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

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

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein	<50	<50	1	50
Acrylonitrile	<50	<50	1	50
Benzene	<10	<10	1	10
Bromoform	<10	<10	1	10
Carbon Tetrachloride	<2	<2	1	2
Chlorobenzene	<10	<10	1	10
Chlorodibromomethane	<10	<10	1	10
Chloroethane	<50	<50	1	50
2-Chloroethylvinyl Ether	<10	<10	1	10
Chloroform	<10	<10	1	10
Dichlorobromomethane [Bromodichloromethane]	<10	<10	1	10
1,1-Dichloroethane	<10	<10	1	10
1,2-Dichloroethane	<10	<10	1	10
1,1-Dichloroethylene	<10	<10	1	10
1,2-Dichloropropane	<10	<10	1	10
1,3-Dichloropropylene [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	<0.50	<0.50	1	10
2,4-Dichlorophenol	<0.69	<0.69	1	10
2,4-Dimethylphenol	<0.53	<0.53	1	10
4,6-Dinitro-o-Cresol	<0.66	<0.66	1	50
2,4-Dinitrophenol	<1.4	<1.4	1	50
2-Nitrophenol	<0.88	<0.88	1	20
4-Nitrophenol	<1.1	<1.1	1	50
P-Chloro-m-Cresol	<0.53	<0.53	1	10
Pentalchlorophenol	<0.5	<0.5	1	5
Phenol	<0.44	<0.44	1	10
2,4,6-Trichlorophenol	<0.79	<0.79	1	10

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	<0.28	<0.28	1	10
Acenaphthylene	<0.47	<0.47	1	10
Anthracene	<0.35	<0.35	1	10
Benzidine	<0.66	<0.66	1	50
Benzo(a)Anthracene	<0.38	<0.38	1	5
Benzo(a)Pyrene	<0.85	<0.85	1	5
3,4-Benzofluoranthene	<5.7	<5.7	1	10
Benzo(ghi)Perylene	<0.63	<0.63	1	20
Benzo(k)Fluoranthene	<0.57	<0.57	1	5
Bis(2-Chloroethoxy)Methane	<0.35	<0.35	1	10
Bis(2-Chloroethyl)Ether	<0.72	<0.72	1	10
Bis(2-Chloroisopropyl)Ether	<1	<1	1	10
Bis(2-Ethylhexyl)Phthalate	<2.2	<2.2	1	10
4-Bromophenyl Phenyl Ether	<0.41	<0.41	1	10
Butyl benzyl Phthalate	<0.69	<0.69	1	10
2-Chloronaphthalene	<0.28	<0.28	1	10
4-Chlorophenyl phenyl ether	<0.66	<0.66	1	10
Chrysene	<0.57	<0.57	1	5
Dibenzo(a,h)Anthracene	<0.69	<0.69	1	5
1,2-(o)Dichlorobenzene	<10	<10	1	10
1,3-(m)Dichlorobenzene	<10	<10	1	10
1,4-(p)Dichlorobenzene	<10	<10	1	10
3,3-Dichlorobenzidine	<0.88	<0.88	1	5
Diethyl Phthalate	<0.63	<0.63	1	10
Dimethyl Phthalate	<0.63	<0.63	1	10
Di-n-Butyl Phthalate	<1.2	<1.2	1	10
2,4-Dinitrotoluene	<0.97	<0.97	1	10
2,6-Dinitrotoluene	<1.2	<1.2	1	10
Di-n-Octyl Phthalate	<2.8	<2.8	1	10
1,2-Diphenylhydrazine (as Azo-benzene)	<0.22	<0.22	1	20
Fluoranthene	<0.44	<0.44	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Fluorene	<0.47	<0.47	1	10
Hexachlorobenzene	<0.69	<0.69	1	5
Hexachlorobutadiene	<0.41	<0.41	1	10
Hexachlorocyclo-pentadiene	<0.35	<0.35	1	10
Hexachloroethane	<0.47	<0.47	1	20
Indeno(1,2,3-cd)pyrene	<0.22	<0.22	1	5
Isophorone	<0.28	<0.28	1	10
Naphthalene	<0.31	<0.31	1	10
Nitrobenzene	<0.91	<0.91	1	10
N-Nitrosodimethylamine	<0.79	<0.79	1	50
N-Nitrosodi-n-Propylamine	<0.72	<0.72	1	20
N-Nitrosodiphenylamine	<0.47	<0.47	1	20
Phenanthrene	<0.44	<0.44	1	10
Pyrene	<0.57	<0.57	1	10
1,2,4-Trichlorobenzene	<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	<0.004	<0.004	1	0.01
alpha-BHC (Hexachlorocyclohexane)	<0.003	<0.003	1	0.05
beta-BHC (Hexachlorocyclohexane)	<0.004	<0.004	1	0.05
gamma-BHC (Hexachlorocyclohexane)	<0.004	<0.004	1	0.05
delta-BHC (Hexachlorocyclohexane)	<0.006	<0.006	1	0.05
Chlordane	<0.1	<0.1	1	0.2
4,4-DDT	<0.004	<0.004	1	0.02
4,4-DDE	<0.009	<0.009	1	0.1
4,4,-DDD	<0.002	<0.002	1	0.1
Dieldrin	<0.005	<0.005	1	0.02
Endosulfan I (alpha)	<0.007	<0.007	1	0.01
Endosulfan II (beta)	<0.004	<0.004	1	0.02
Endosulfan Sulfate	<0.005	<0.005	1	0.1
Endrin	<0.004	<0.004	1	0.02
Endrin Aldehyde	<0.003	<0.003	1	0.1
Heptachlor	<0.004	<0.004	1	0.01
Heptachlor Epoxide	<0.004	<0.004	1	0.01
PCB-1242	<0.03	<0.03	1	0.2
PCB-1254	<0.03	<0.03	1	0.2
PCB-1221	<0.03	<0.03	1	0.2
PCB-1232	<0.03	<0.03	1	0.2
PCB-1248	<0.03	<0.03	1	0.2
PCB-1260	<0.03	<0.03	1	0.2
PCB-1016	<0.03	<0.03	1	0.2
Toxaphene	<0.1	<0.1	1	0.3

* For PCBS, if all are non-detects, enter the highest non-detect preceded by a “<”.

Section 3. Dioxin/Furan Compounds

A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

☐ 2,4,5-trichlorophenoxy acetic acid

Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid

Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate

Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate

Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol

Common Name TCP, CASRN 95-95-4

☐ hexachlorophene

Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

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 Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
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: 7

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.

N/A

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
Submitted via DMR			

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.

N/A

C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

N/A

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 M

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.

N/A

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

☐ Yes ☐ No

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
N/A	N/A	N/A	N/A	N/A

D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

☐ Yes ☐ No

If yes, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

N/A

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

A. General information

Company Name: No SIUs or CIUs

SIC Code: No SIUs or CIUs

Contact name: No SIUs or CIUs

Address: No SIUs or CIUs

City, State, and Zip Code: No SIUs or CIUs

Telephone number: No SIUs or CIUs

Email address: No SIUs or CIUs

B. Process information

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

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: **N/A**

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: **N/A**

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Category: **N/A**

Subcategories: **N/A**

Category: **N/A**

Subcategories: **N/A**

Category: **N/A**

Subcategories: **N/A**

Category: **N/A**

Subcategories: **N/A**

F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

☐ Yes ☒ No

If yes, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

N/A

QUIDDITY

3100 Alvin Devane Blvd, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

LIST OF ATTACHMENTS
HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

Attachment A – Core Data Form (Admin Report 1.0, Section 3.C)

Attachment B – Plain Language Summary (Admin Report 1.0, Section 8.F)

Attachment C – Public Involvement Plan (Admin Report 1.0, Section 8.G)

Attachment D – Supplemental Permit Information Form (Admin Report)

Attachment E – USGS Map (Admin. Report 1.0, Section 13)

Attachment F – Adjacent and Downstream Landowners (Admin. Report 1.1,Section 1.A and C)

Attachment G – Original Photographs (Admin Report 1.1, Section 2)

Attachment H – Buffer Zone Map (Admin Report 1.1, Section 3.A)

Attachment I – Area Water Wells (Admin Report 1.1, Section 3.C)

Attachment J – Wetlands Map (Admin Report 1.1, Section 3.C and Tech. Report 1.1, Section 5.A)

Attachment K – Supplemental Technical Reports (Tech Report 1.0, Section 2.A and B and Tech Report 1.1, Section 4)

Attachment L – Flow Schematics (Tech Report 1.0, Section 2.C)

Attachment M – Service Area Map (Tech Report 1.0, Section 3)

Attachment N – Justification (Tech Report 1.0, Section 4 and Tech Report 1.1, Section 1.A)

Attachment O – Sewage Sludge Management Plan (Tech Report 1.0 Section 6.F and Tech. Report 1.1, Item 7)

Attachment P – Final Effluent Analysis (Tech Report 1.0, Section 7, worksheet 4.0)

Attachment Q – Sludge Disposal Information (Tech Report 1.0, Section 9.B)

Attachment R – FEMA Flood Map (Tech Rep 1.1, Section 5.A)

Attachment S – Wind Rose (Tech Report 1.1, Section 5.B)

ATTACHMENT A

CORE DATA FORM

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☒ Other **renewal with major amendment**

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 600740468		**RN 102849288**

SECTION II: Customer Information

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

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

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

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

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

Harris County Municipal Utility District No. 200

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

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

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

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

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

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

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:

1300 Post Oak Blvd
Suite 2400

City	State	ZIP	ZIP + 4
Houston	TX	77056	

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

18. Telephone Number	19. Extension or Code	20. Fax Number (*if applicable*)
(713) 623-4531		(713) 623-6143

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*)

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

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

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

HCMUD 200 Wastewater Treatment Facility

23. Street Address of the Regulated Entity: *(No PO Boxes)*	13050 Stonefield Drive							
	City		**State**	TX	**ZIP**	77014	**ZIP + 4**	
24. County	Harris							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	N/A				
26. Nearest City			**State**	**Nearest ZIP Code**	
Houston			TX	77014	
27. Latitude (N) In Decimal:	29.973006		**28. Longitude (W) In Decimal:**	-95.430569	
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		221320	

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

treatment of municipal wastewater

34. Mailing Address:	**20141 Schiel Road**							
	City	**Cypress**	**State**	**TX**	**ZIP**	**77433**	**ZIP + 4**	
35. E-Mail Address:	**lwright@municipalops.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(281) 368-5511		**(281) 367-5517**

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☒ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
	TXR05Q408			
☐ Voluntary Cleanup	☒ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0012294001			

SECTION IV: Preparer Information

40. Name:	Jonathan Nguyen	**41. Title:**	Permitting Specialist

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 685-5156		( ) -	jnguyen@quiddity.com

SECTION V: Authorized Signature

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

Company:	Harris County MUD No. 200	**Job Title:**	President
Name *(In Print):*	James Wright	**Phone:**	(713) 623- **4531**
Signature:	James Wright	**Date:**	5/28/24

ATTACHMENT B

PLAIN LANGUAGE SUMMARY

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

Harris County MUD No. 200
Renewal with Major Amendment – Plain Language Summary

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

Harris County Municipal Utility District No. 200 (CN600740468) operates the HCMUD No. 200 wastewater treatment facility (RN102849288), an activated sludge process plant operated in the complete mix mode. The facility is located at 13050 Stonefield Drive, in Harris County, Texas 77014.

This application is for a renewal with major amendment to increase the annual average flow of 1,440,000 gallons per day to 1,900,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, aeration basins, final clarifiers, sludge digesters, chlorine contact chambers and a dechlorination chamber.

Harris County MUD No. 200
Renewal with Major Amendment – Plain Language Summary

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.

El Distrito Municipal de Servicios Públicos No. 200 del Condado de Harris (CN600740468) opera la instalación de tratamiento de aguas residuales HCMUD No. 200 (RN102849288), una planta de proceso de lodos activados que opera en modo de mezcla completa. La instalación está ubicada en 13050 Stonefield Drive, en el condado de Harris, Texas 77014.

Esta solicitud es para una renovación con enmienda importante para aumentar el flujo promedio anual de 1,440,000 galones por día a 1,900,000 galones por día de aguas residuales domésticas tratadas.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbonoso ($CBOD_5$) de cinco días, sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH_3-N) y Escherichia coli. Se incluyen contaminantes potenciales adicionales en el Informe Técnico Nacional 1.0, Sección 7. Análisis de Contaminantes del Efluente Tratado y Hoja de Trabajo Doméstico 4.0 en el paquete de solicitud de permiso. Las aguas residuales domésticas son tratadas mediante una planta de proceso de lodos activados y las unidades de tratamiento incluyen criba de barras, balsas de aireación, clarificadores finales, digestores de lodos, cámaras de contacto de cloro y cámara de decloración.

ATTACHMENT C

PUBLIC INVOLVEMENT PLAN

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

☐ New Permit or Registration Application

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

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

Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, **and**

☒ Located within any of the following geographical locations:

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

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

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

Not expected to have significant public interest.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information.

☐ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

ATTACHMENT D

SUPPLEMENTAL PERMIT INFORMATION FORM

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

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

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

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

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

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

The following applies to all applications:

1. Permittee: Harris County MUD No. 200

   Permit No. WQ00 12294001 EPA ID No. TX 0085413

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

   13050 Stonefield Drive, in Harris County, Texas 77014

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: Jonathan Nguyen

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Permit Specialist

Mailing Address: 3100 Alvin Devane Blvd, Suite 150

City, State, Zip Code: Austin, TX 78741

Phone No.: 512-685-5156 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: jnguyen@quiddity.com

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

HCMUD No. 200

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.

To Harris County Flood Control District Ditch P145-00-00, then to Greens Bayou Above Tidal in Segment No. 1016 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.

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

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

☐ Disturbance of vegetation or wetlands

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

Additional phases are expected in the future. No additional land will need to be required for future expansion.

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

Existing land use is the WWTF.

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

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

N/A

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

N/A

ATTACHMENT E

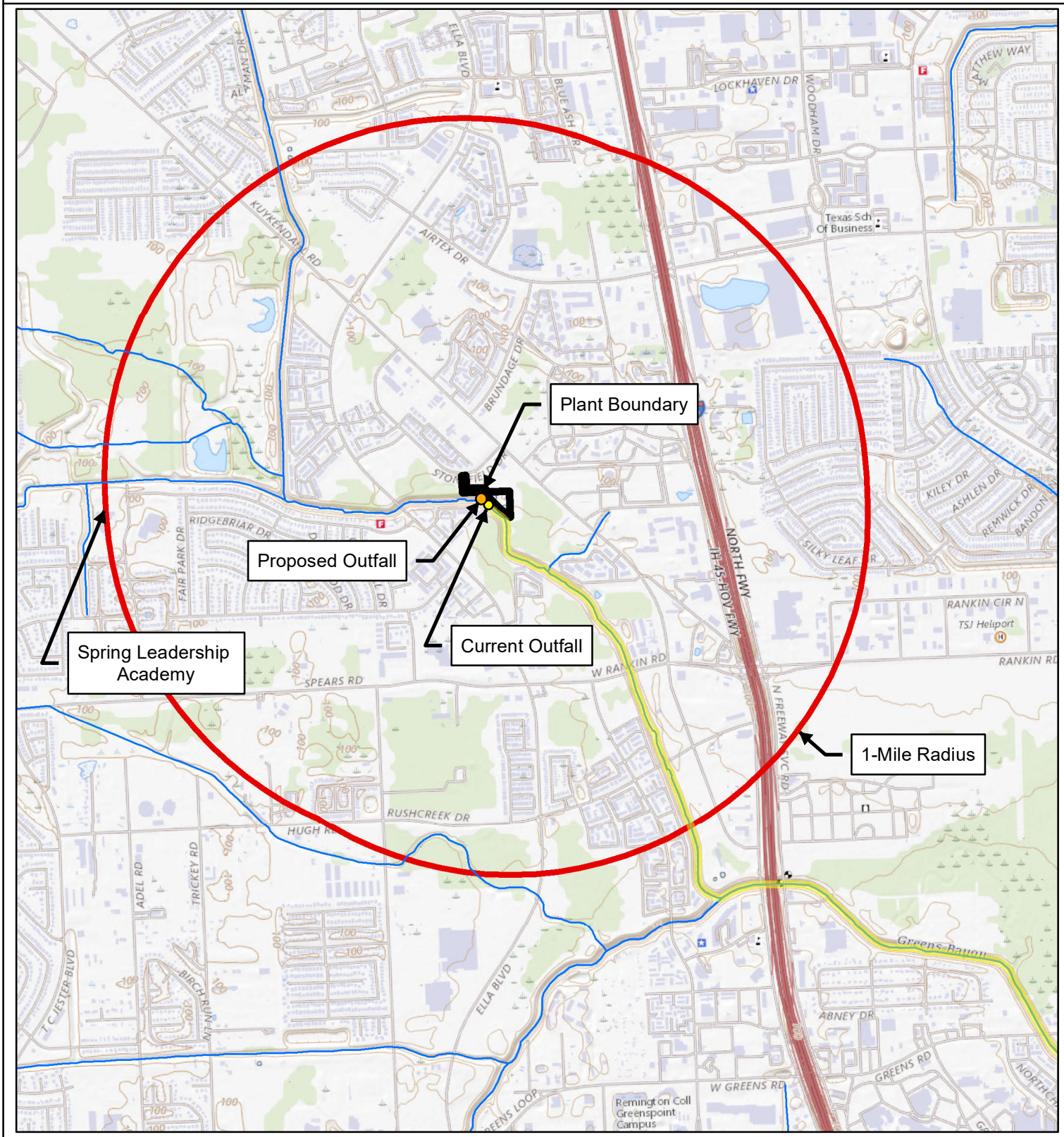
USGS MAP

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

USGS TOPO MAP EXHIBIT 1



Disclaimer: This product is offered for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property, governmental and/or political boundaries or related facilities to said boundary. No express warranties are made by Quiddity Engineering concerning the accuracy, completeness, reliability, or usability of the information included within this exhibit.

QUIDDITY

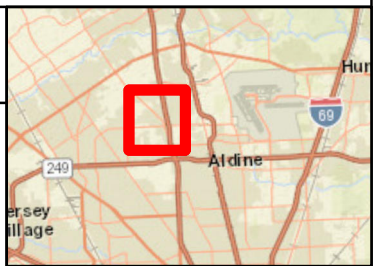
1 inch equals 2,000 feet

HARRIS COUTY MUD No. 200

HARRIS COUNTY, TEXAS

LEGEND

- Proposed Outfall
- Current Outfall
- Discharge Route
- Streams
- 1 Mile Radius
- Plant Boundary

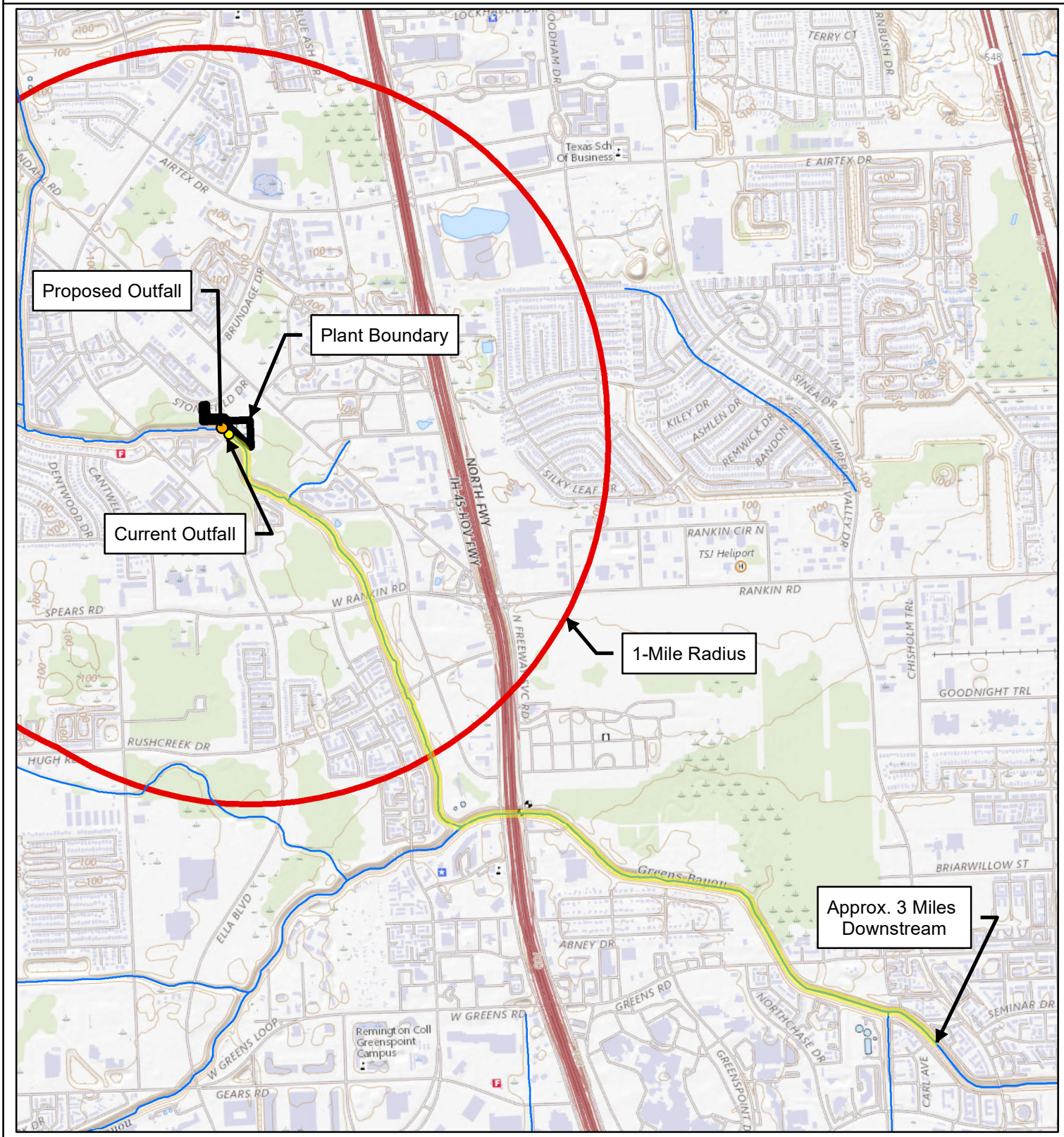


VICINITY MAP

Scale: 1 inch equals 10 miles

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_USGS Maps\HCMUD 200\HCMUD200_USGS_Topo_Map_Ex1_8.5X11.mxd
Project Number: 00085-0228-01-001 Date: 1/16/2024 User Name: lda

USGS TOPO MAP EXHIBIT 2



Disclaimer: This product is offered for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property, governmental and/or political boundaries or related facilities to said boundary. No express warranties are made by Quiddity Engineering concerning the accuracy, completeness, reliability, or usability of the information included within this exhibit.

QUIDDITY

1 inch equals 2,000 feet

HARRIS COUTY MUD No. 200

HARRIS COUNTY, TEXAS

LEGEND

- Proposed Outfall
- Outfall
- Discharge Route
- Streams
- 1 Mile Radius
- Plant Boundary

VICINITY MAP

Scale: 1 inch equals 10 miles

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Project Number: 00085-0228-01-001 Date: 1/16/2024 User Name: lda

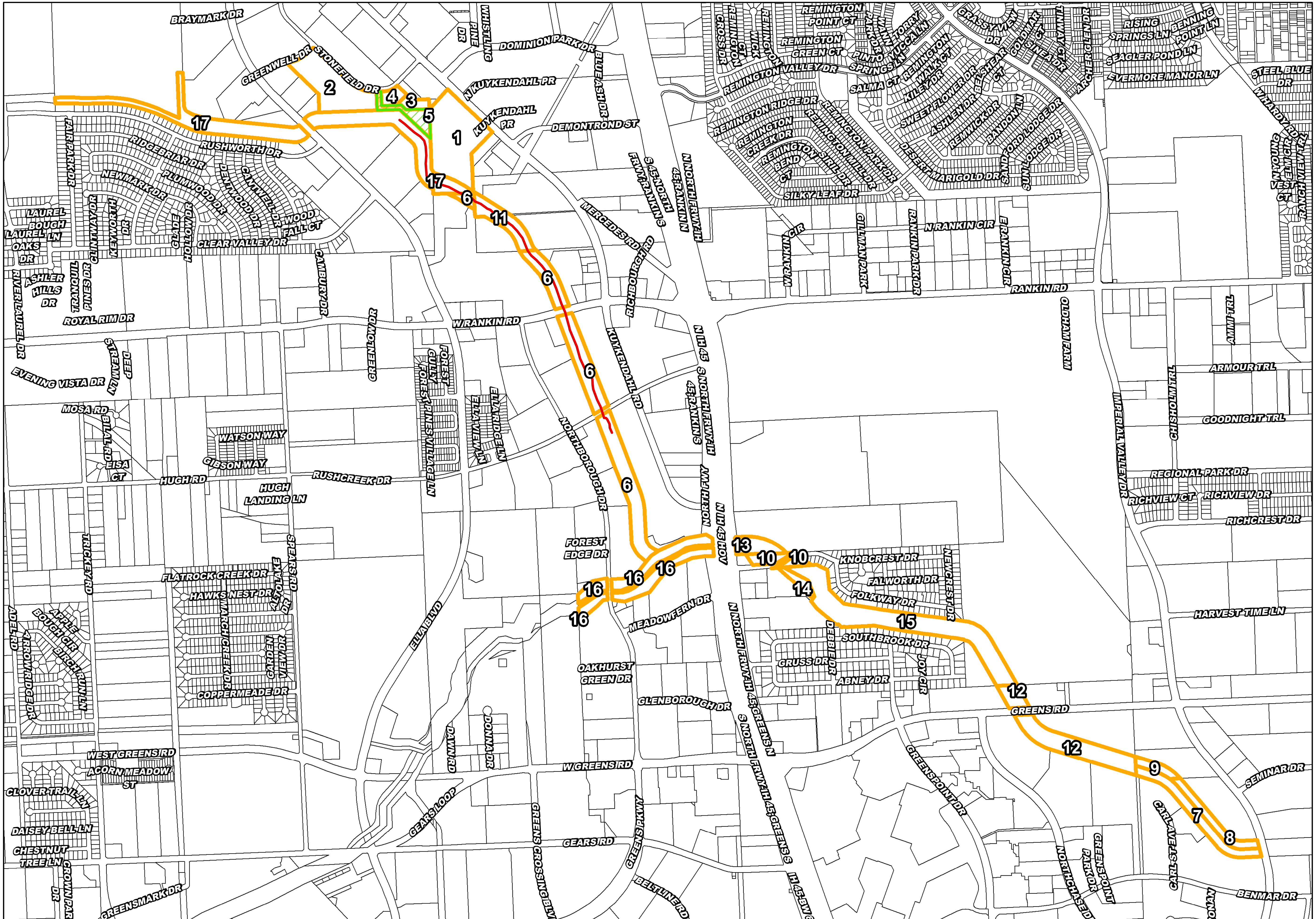
ATTACHMENT F

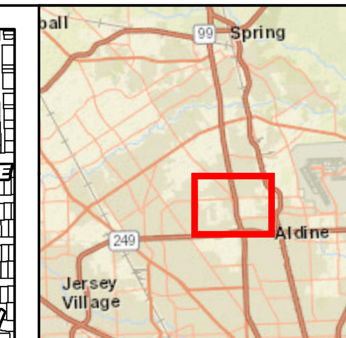
AFFECTED LANDOWNERS

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

LEGEND

- Discharge Route
- Affected Landowners
- Plant Boundary
- HCAD Parcels

AFFECTED LANDOWNERS MAP

HARRIS COUNTY MUD No. 200
HARRIS COUNTY, TEXAS

0 1,200
1 INCH : 1,200 FEET
IMAGERY PROVIDED BY NEARMAP

Disclaimer: This product is offered for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property, governmental and/or political boundaries or related facilities to said boundary. No express warranties are made by Quiddity Engineering concerning the accuracy, completeness, reliability, or usability of the information included within this exhibit.

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Project Number: 00085-0228-01-001 Date: 1/16/2024 User Name: lda

Harris County MUD No. 200
TPDES Renewal with Major Amendment

Affected Landowners List

Object ID	Owner	Mailing Address
1	KUYKENDAHL PROPERTY 1996	4808 GIBSON ST HOUSTON TX 77007-5480
2	SIERA INVEST TX INC	7047 HARRISBURG BLVD HOUSTON TX 77011-4645
3	Property owned by the permittee	Property owned by the permittee
4	Property owned by the permittee	Property owned by the permittee
5	Property owned by the permittee	Property owned by the permittee
6	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
7	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
8	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
9	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
10	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
11	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
12	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
13	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
14	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
15	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
16	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601
17	HARRIS COUNTY FLOOD CONTROL DISTRICT	9900 NORTHWEST FWY HOUSTON TX 77092-8601

KUYKENDAHL PROPERTY 1996
4808 GIBSON ST
HOUSTON TX 77007-5480

SIERA INVEST TX INC
7047 HARRISBURG BLVD
HOUSTON TX 77011-4645

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

ATTACHMENT G

ORIGINAL PHOTOS

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337


ATTACHMENT E - ORIGINAL PHOTOS
HCMUD 200
1
2
3
4
5
6

HCMUD 200 WWTF
Image 1: Treatment Unit

HCMUD 200 WWTF
Image 2: Outfall

HCMUD 200 WWTF
Image 3: Outfall Downstream

HCMUD 200 WWTF
Image 4: Outfall Downstream

HCMUD 200 WWTF
Image 5: Outfall Upstream

HCMUD 200 WWTF
Image 6: Outfall Upstream

ATTACHMENT H

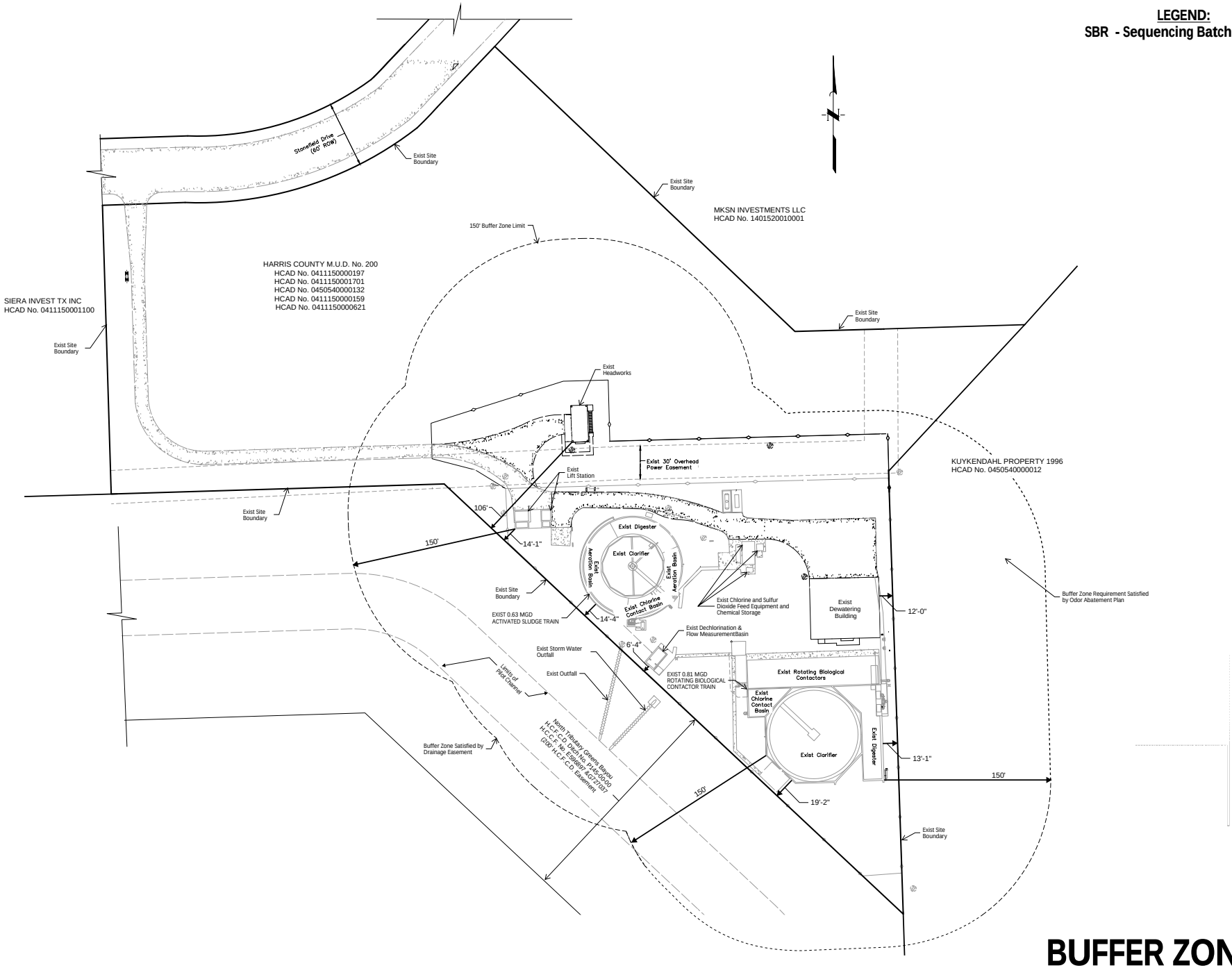
BUFFER ZONE MAPS

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

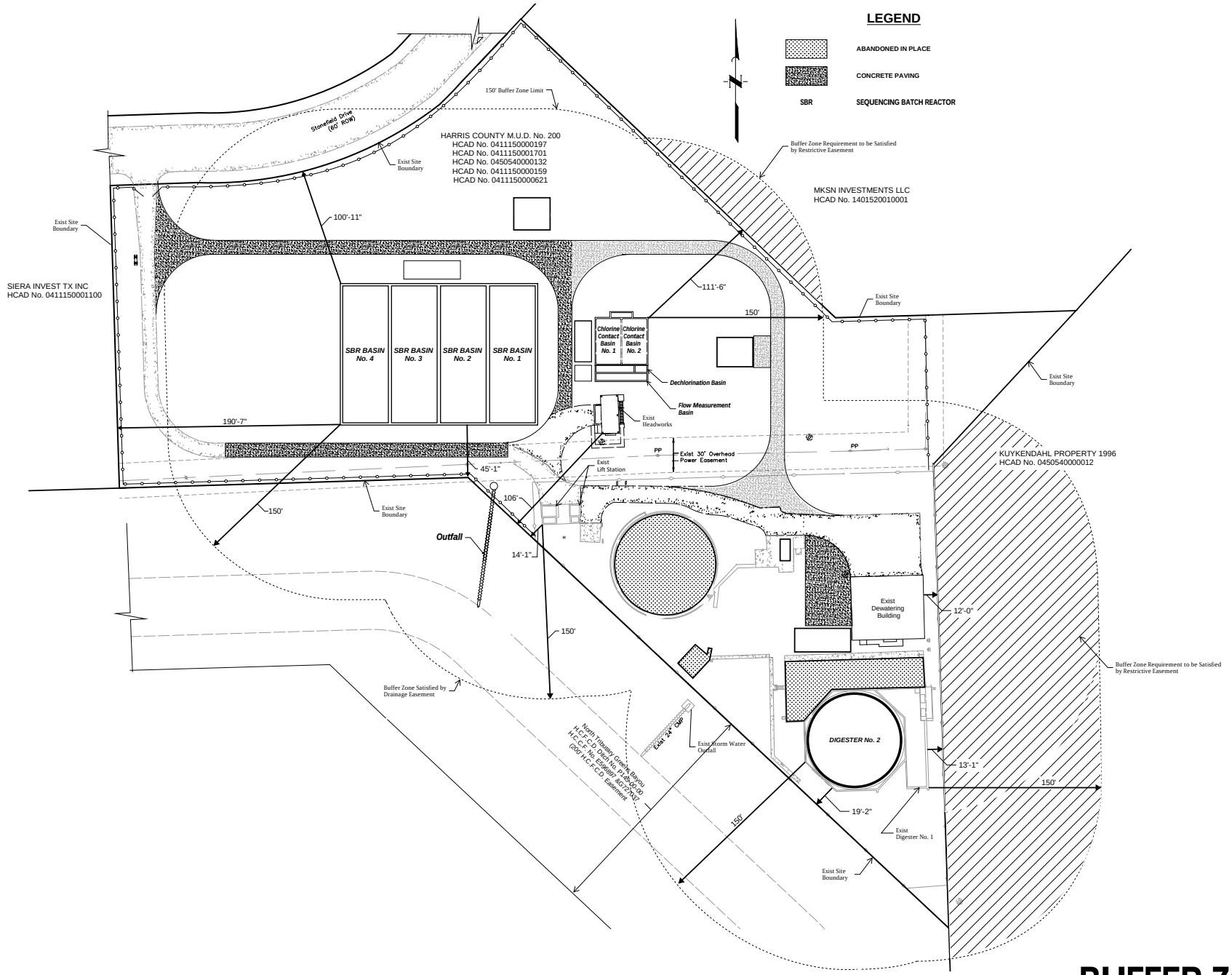
QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

LEGEND:
SBR - Sequencing Batch Reactor



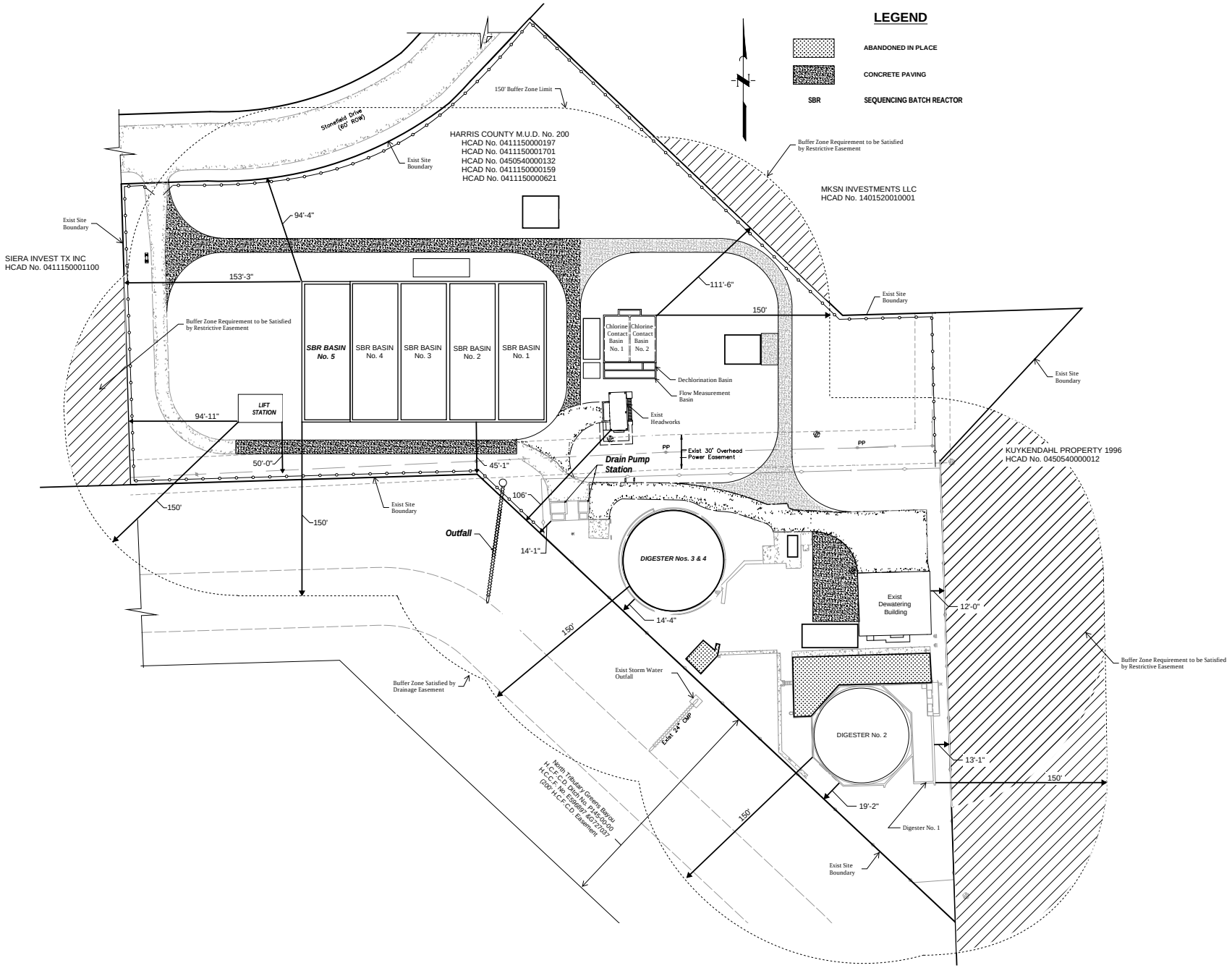
BUFFER ZONE
PHASE I - 1.44 MGD
SCALE: 1"=120'

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



BUFFER ZONE
PHASE II - 1.60 MGD
SCALE: 1"=120'

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



BUFFER ZONE
PHASE III - 1.90 MGD
SCALE: 1"=120'

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

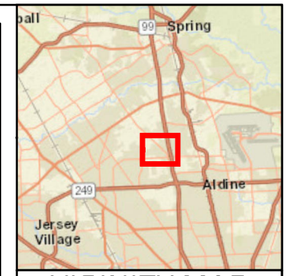
ATTACHMENT I

AREA WATER WELLS

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337



VICINITY MAP
1 INCH = 10 MILES

LEGEND

- Existing Water Wells
- 500 Foot Radius
- Plant Boundary

WATER WELLS MAP

HARRIS COUNTY MUD No. 200
HARRIS COUNTY, TEXAS

0 600
1 INCH : 600 FEET
IMAGERY PROVIDED BY NEARMAP

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\J_Nguyen\HCMUD 200\WaterWells_Map_11x17.mxd Project Number: 00395-0229-01-001 Date: 1/19/2024 User Name: kha

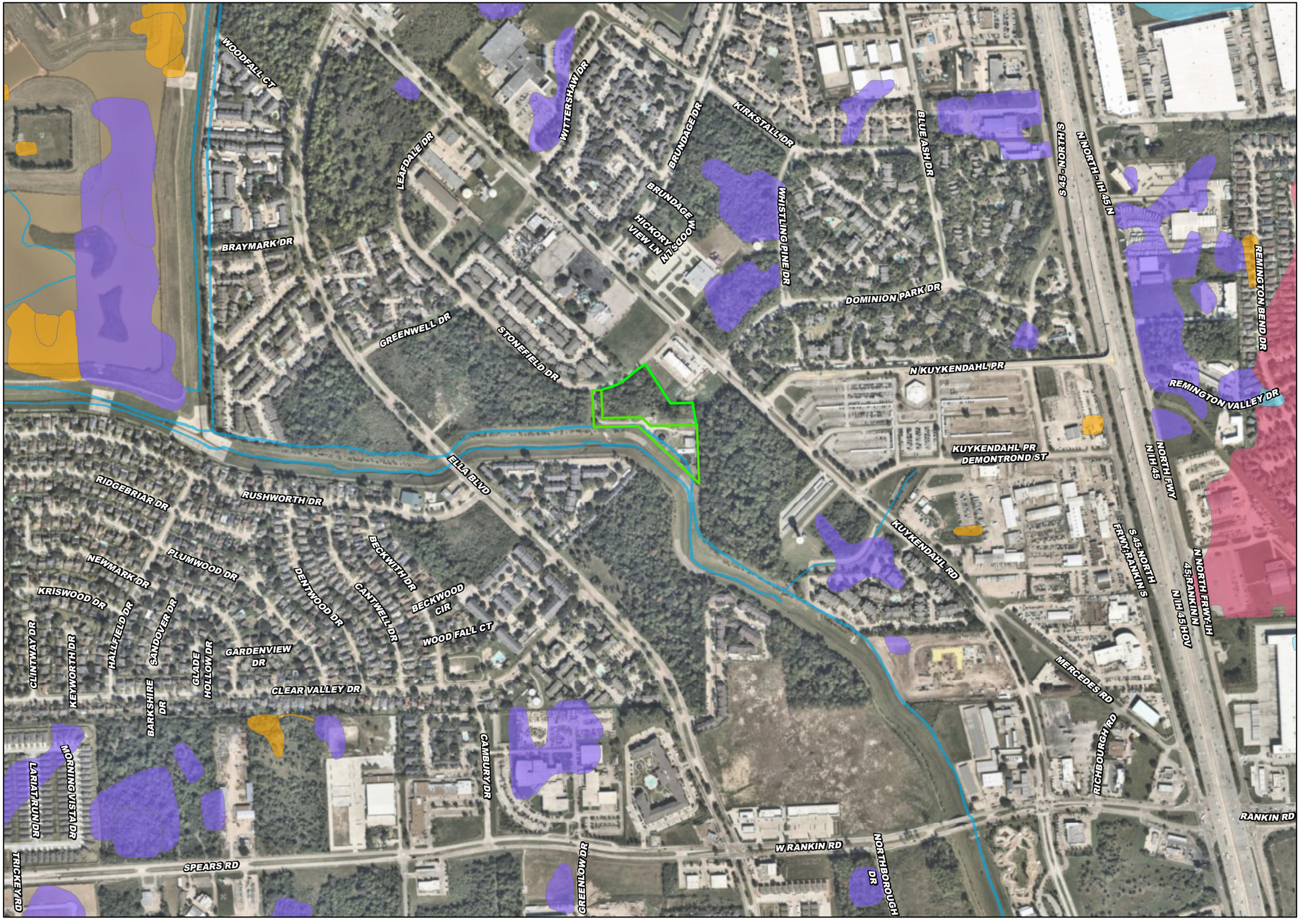
ATTACHMENT J

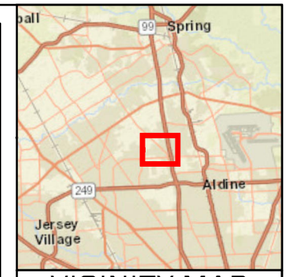
WETLANDS MAP

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

LEGEND

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine
- Other
- Plant Boundary

WETLANDS MAP

HARRIS COUNTY MUD No. 200
HARRIS COUNTY, TEXAS

0 600
1 INCH : 600 FEET
IMAGERY PROVIDED BY NEARMAP

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

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ATTACHMENT K

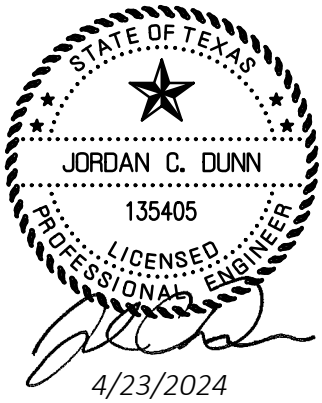
SUPPLEMENTAL TECHNICAL REPORT

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

SUPPLEMENTAL TECHNICAL REPORT
for the
DOMESTIC WASTEWATER PERMIT MAJOR AMENDMENT
for
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 200
HARRIS COUNTY, TEXAS



4/23/2024

April 2024
Job No. 00085-0228-01

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

I. INTRODUCTION

The purpose of this report is to provide additional information pertaining to items in the Domestic Administrative Report and the Domestic Technical Report for the permit major amendment application for the Harris County Municipal Utility District No. 200 (the District) Wastewater Treatment Plant (WWTP). The existing permit has a final phase of 1.44 million gallons per day (MGD) average daily flow (ADF) and 4,000 gallon per minute (gpm) 2-hour peak flow (2-hr PF). The proposed permit includes 3 operational phases. Phase I treats 1.44 MGD ADF and 4,000 gpm 2-hr PF. Phase II treats 1.60 MGD ADF and 4,444 gpm 2-hr PF. Phase III treats 1.90 MGD ADF and 5,278 gpm 2-hr PF.

The current and proposed facilities are located at 13050 Stonefield Drive, approximately 530' southwest of the intersection of Kuykendahl Road and Stonefield Drive in Harris County, Texas 77014.

II. LOCATION INFORMATION

Please see Item 7 of the Domestic Admin. Report 1.0 for specific location information. A USGS Map with the required site information is provided as Attachment A.

III. TREATMENT UNITS

(For Item 3 of Technical Report 1.0)

The facilities will be constructed in 3 operational phases with total design flows as described above. A detailed description of the treatment process for each phase is presented below:

The Phase I facility is the current operational 1.44 MGD ADF and 4,000 gpm 2-hr PF phase. The existing facility consists of an on- site lift station, an elevated concrete headworks, a single stage nitrification conventional activated sludge (CAS) treatment train, a rotating biological contactor (RBC) treatment train, a dechlorination and flow measurement basin, aerobic digesters, and dewatering system. The CAS treatment train consists of a circular structure that includes one aeration basin, one secondary clarifier, one chlorine contact basin, and one aerobic digester. The RBC treatment train consists of an influent channel with two mechanical fine screens, one RBC basin, one secondary clarifier, one chlorine contact basin, and one aerobic digester. In this phase, raw sewage is pumped from the on-site lift station to the headworks for screening and a flow splitting to the two treatment trains. Flow to the CAS treatment train is mixed with return activated sludge in the aeration basin and the mixed liquor flows through the aeration basin operated in the single-stage nitrification mode to consume organics and break down ammonia. Mixed liquor then flows to the secondary clarifier for clarification. Clarified effluent flows to the chlorine contact basin for disinfection and waste-activated sludge is pumped to the aerobic digester for digestion. Flow to the RBC treatment train passes through a mechanical fine screen before entering the rotating biological contactor basin. Fixed film biomass on the seven (7) RBC units consume organics. Flow from the RBC basin then flows to the secondary clarifier for clarification. Clarified effluent flows to the chlorine contact basin for disinfection and waste-activated sludge is pumped to the aerobic digester for digestion. Disinfected effluent from each chlorine contact basin combines for dechlorination and flow measurement in a common basin prior to discharge at the existing outfall. Digested sludge is pumped from the existing aerobic digesters to existing dewatering system and the dewatered sludge is hauled off for disposal.

The Phase II facilities will be designed to treat 1.60 MGD ADF and 4,444 gpm 2-hr PF. The existing on-site lift station will be expanded by replacing pumps and piping to accommodate the design flow. The existing headworks will remain in service. A proposed four-train sequencing batch reactor (SBR) will be constructed that will operate with a suspended growth activated sludge process with anaerobic, anoxic, and oxic phases

within the sequencing batch process. The proposed facilities will also include a disinfection basin with a chlorine mixing chamber and two chlorine contact channels, a dechlorination mixing chamber, and flow measurement channel with a Parshall flume. The outfall will be relocated to accommodate the location of the proposed facilities. The existing CAS treatment train will be abandoned in place. The existing RBC basin and RBC chlorine contact basin will be abandoned in place. The existing RBC aerobic digester will remain in service and the existing RBC secondary clarifier will be converted to an aerobic digester. The existing dewatering system will remain in service. In this phase, raw sewage is pumped from the on-site lift station to the existing headworks for screening. Screened influent then flows to the proposed SBR units for biological treatment of organics and ammonia and clarification. Clarified effluent flows from the SBR units to the proposed disinfection basin for disinfection, dechlorination and flow measurement prior to discharge at the re-located outfall.

The Phase III facilities will designed to treat 1.90 MGD ADF and 5,278 gpm 2-hr PF, and will operate under the same process as Phase II. The proposed facilities will include a new onsite lift station and one additional proposed SBR basin will be constructed to operate in parallel with the existing four SBR basins. The abandoned-in-place CAS treatment train will be converted to an aerobic digester. The flow pattern and treatment process will match the description provided for Phase II.

IV. DESIGN CALCULATIONS AND FEATURES

(For Item 3g of Technical Report 1.0 & Item 4 of Technical Report 1.1)

Design calculations are provided as part of this report on the following pages for each phase of construction.

The current facility and all proposed future expansions will be equipped with design features to prevent overflows or bypassing of untreated wastewater. A backup generator sized to accommodate the Phase I facilities is currently installed onsite with an automatic transfer switch to provide power to essential equipment in the event of a main power failure. An appropriately sized generator and automatic transfer switch will be added in the Phase II expansion to provide power to essential equipment in Phases II and III in the event of a main power failure. The current and proposed facilities will have an automatic telephone dialer that notifies the operator of equipment failures, main power failures, and high basin levels. The onsite lift station will maintain a redundant pump to protect against overflows in the event of a pump failure. The Phase II and Phase III SBR basins will be designed to provide treatment capacity for the permit phase with on SBR basin out of service. Additionally, critical equipment throughout the facility will be designed with redundancy in the event of critical equipment failure.

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 200
WASTEWATER TREATMENT PLANT
TREATMENT UNITS AND VOLUMES

The existing Harris County Municipal Utility District No. 200 Wastewater Treatment Plan consists of two treatment trains operating in parallel.

A schematic of the existing wastewater treatment plant is provided as Phase I under *Attachment I – Flow Schematics* of this application.

The following are the treatment unit volumes and surface areas:

Conventional Activated Sludge (CAS) Train

Aeration Basin	= 32,172 ft^3
Secondary Clarifier	= 2,642 ft^2
Chlorine Contact Basin	= 5,982 ft^3
Aerobic Digester	= 12,774 ft^3
Air Blowers (firm capacity)	= 3,050 scfm

Rotating Biological Contactor (RBC) Train

RBC Basin	= 910,000 ft^2
Secondary Clarifier	= 5,985 ft^2
Chlorine Contact Basin	= 8,672 ft^3
Aerobic Digester	= 24,681 ft^3
Air Blowers (firm capacity)	
Digester Blowers	= 1,050 scfm
RBC Basin Blowers	= 1,400 scfm

I. SUMMARY

The Phase II facility will utilize a four-train true-batch sequencing batch reactor (SBR) that operates in a suspended growth activated sludge process for biochemical oxygen demand (BOD_5) and ammonia nitrogen (NH_3-N) reduction. Treatment units include an elevated headworks with a mechanical fine screen and mechanical coarse and manual bar screen backups, 4 SBR process basins, a disinfection basin, two (2) aerobic digesters, and a mechanical dewatering unit.

II. WASTEWATER TREATMENT PLANT DESIGN

A. DESIGN CRITERIA

1. Proposed Effluent Limits.

   a. BOD_5 = 10 mg/l (daily average)

   b. TSS = 15 mg/l (daily average)

   c. NH_3-N = 2 mg/l (daily average)

   d. *E.coli* = 63 CFU/100 mL (daily average)

   e. DO = 4 mg/l (daily average)

2. Process Criteria. The process criteria are taken from 30 TAC §217, Design Criteria for Sewerage Systems.

   a. Maximum Aeration Basin Organic Loading (lb BOD_5 /day/1,000 ft^3) = 35

   b. Minimum Oxygen Requirement in Conventional Activated Sludge Systems Intended to Nitrify (lb O_2/lb BOD_5) = 2.2

   c. Minimum Chlorine Contact Detention Time at Peak Flow (minutes) = 20

   d. Mean Cell Residence Time in Aerobic Digester* (days) = 28*

      *28-day SRT utilized instead of a 40-day SRT for use of a multi-stage digester per EPA publication “Control of Pathogens and Vector Attraction in Sewage Sludge.”

   e. Maximum Allowable Decant Rate with the Largest Basin Out of Service (gpm) = 4,444

B. PHASE II TREATMENT FACILITIES

1. Flow.

   a. Average (Design) = 1.0Q = 1,600,000 gpd = 1,111 gpm

   b. Peak (2 hour) = 4.0Q = 6,400,000 gpd = 4,444 gpm

2. Organic Loadings.

   BOD_5 = (1.60 MGD)(8.34)(300 mg/L) = 4,003 Lbs BOD5/day

   TSS = (1.60 MGD)(8.34)(350 mg/L) = 4,670 Lbs TSS/day

   NH_3-N = (1.60 MGD)(8.34)(50 mg/L) = 667 Lbs NH3-N/day

   TKN = (1.60 MGD)(8.34)(70 mg/L) = 931 Lbs TKN/day

   The concentrations of BOD_5, TSS, NH_3-N, and TKN utilized to determine the organic loadings are based on the most recently available influent sample data (composite samples taken three times weekly for the period of January 2022 through April 2023).

3. Process Equipment.

   a. Screening. This phase will utilize the existing elevated concrete headworks equipped with mechanical fine screening equipment hydraulically sized to pass the Phase II two-hour peak flow of 6.40 MGD, a mechanical coarse screen backup, and a backup manual bar screen. Flow will be directed from the headworks to the SBR basins.

   b. SBR: Aeration Basin Volume. The proposed facilities will include four (4) SBR basins sized at 40' wide by 118' long. The design water depth is assumed at 21'.

      i. Total Required Volume
      Required Volume Using Traditional Design Method (30 TAC §217 Guidelines)
      (1.60 MGD)(8.34)(300 mg/L)/(35 lb. BOD_5/1,000 ft^3) = 114,378 ft^3

      ii. Proposed Volume
      (4)[(40 ft x 118 ft)](21 ft) = 396,480 ft^3

      iii. Proposed Volume with One Basin Out of Service (30 TAC §217.156(a)(2))
      (3)[(40 ft x 118 ft)](21 ft) = 297,360 ft^3

   c. SBR: Settling Area and Decant Equipment. The proposed facilities will include four (4) SBR basins sized at 40' wide by 118' long. The design maximum water depth is assumed at 21' and minimum water depth is assumed at 13.7'. The maximum decantable range is assumed at 6.9' during normal operation. The SBR basins and equipment will be sized so that the maximum decant rate will not be exceeded at peak flow with one basin out of service and therefore an equalization basin downstream of the SBR basins will not be provided. The design decantable depth during peak flow events will be 7.3' so that the maximum decant rate does not exceed

the peak 2-hour flow.

i. Surface Area

1. Minimum Surface Area at Peak Flow
(6,400,000 gpd)/(1,200 gpd/ft^2) = 5,333 ft^2

2. Total Proposed Surface Area with One Basin Out of Service
(3)(40 ft x 118 ft) = 14,160 ft^2

ii. Minimum Decantable Volume Per Basin with One Basin Out of Service (At Peak Flow)

1. Total Peak Flow Cycle Time = 216 minutes

2. Total Non-Decant Time per Peak Flow Cycle = 157.8 minutes

3. Minimum Decantable Volume per Peak Flow Cycle Per Basin
(4,444 gpm)(157.8 min)/[(3 Basins)(7.48)] = 31,254 ft^3

4. Total Proposed Decantable Volume per Basin
(40 ft x 118 ft)(7.3 ft) = 34,456 ft^3

iii. Maximum Decant Rate Per Basin with One Basin Out of Service (At Peak Flow)

1. Maximum Allowable Decant Rate
(Peak Flow Rate) = 4,444 gpm

2. Total Decant Time per Peak Flow Cycle = 58.2 minutes

3. Maximum Decant Rate per Basin
(Flow Rate to Empty Minimum Decantable Volume)
(31,254 ft^3)(7.48)/(58.2 minutes) = 4,017 gpm

d. Chlorine Contact Basin. The proposed facilities include two 4’ by 200’ chlorine contact basins (including baffles) designed to a 40:1 length to width ratio in a serpentine layout. The design water depth is at 9.5’.

i. Required Volume at Peak Flow
(4,444 gpm)(20 min)/(7.48) = 11,882 ft^3

ii. Total Proposed Volume (Accounts for Baffles)
(2) [(4 ft)(200ft)](9.5 ft) = 15,200 ft^3

iii. Actual Detention Time at Peak Flow
(15,200 ft^3)(7.48)/(4,444 gpm) = 25.6 minutes

e. Dechlorination Basin. The proposed facilities include one 6’ by 10’ partitioned chamber and a 6’ by 43.50’ channel downstream of the chlorine contact basins. The design water depths are 8.82’ and 1.0’.

i. Required Volume at Peak Flow
(4,444 gpm)(20 seconds)/[(60 seconds/minute)(7.48)] = 198 ft^3

ii. Total Proposed Volume
(6 ft)(10 ft)(8.82 ft) +(6 ft)(43.50 ft)(1.0 ft) = 791 ft^3

iii. Actual Detention Time at Peak Flow
(791 ft^3)(7.48)(60 seconds/min)/(4,444 gpm) = 79 seconds

f. Aerobic Digester. The proposed 1.60 MGD phase includes converting the existing 85' diameter octagonal clarifier into a two-stage aerobic digester and utilizing the existing digester.

Assume 1 pound of solids produced per pound of BOD_5 applied; solids are 70% volatile organics; 30% of the volatiles are destroyed during digestion; 15,000 mg/l MLSS concentration in the digester on average for the thickened sludge.

i. Digester Sizing

1. Solids Production
(4,003 lb BOD_5 /day)/(1 lb solids/1 lb BOD5) = 4,003 lb solids/day

2. Digested Solids Production
(4,003 lb solid/day)(1-(0.3)(0.7)) = 3,162 lb solids/day

3. Average Digested Solids Production
(4,003 lb solids/day + 3,162 lb solids/day)/2 = 3,583 lb solids/day

4. Total Solids in Digester for 28-day SRT*
(3,583 lb solids/day)(28 days) = 100,324 lb solids

ii. Required Volume
(100,324 lb solids)(10^6)/[(8.34)(15,000 mg/l MLSS in digester)(7.48)] = 107,213 ft^3

iii. Existing Digester Volume = 20,776 ft^3

iv. Proposed Digester Volume
(15.25 ft) {(85 ft)^2 –[85/((1/sqrt(2))+(1/sqrt(2))+1)]^2} = 91,277 ft^3

v. Total Digester Volume = 112,053 ft^3

vi. Total Solids Detention Time = 29.3 days

*28-day SRT utilized instead of 40-day SRT for use of a multi-stage digester per EPA publication "Control of Pathogens and Vector Attraction in Sewage Sludge."

g. Mechanical Dewatering Unit. The proposed phase includes one existing mechanical dewatering unit. The existing mechanical dewatering unit is sized to handle all digested sludge from the aerobic digesters. If the mechanical dewatering unit is out of service, the digesters are sized to stabilize all sludge and the digested sludge can be wet hauled.

h. Diffused Air Requirements.

i. Aeration Requirements for SBR
Proposed SBR Basins

1. Air Required for Treatment (30 TAC §217.155; Eq. F-2)

$$\frac{(1.2)(300\ mg/l\ BOD_5) + (4.6)(70\ mg/l\ TKN)}{(300\ mg/l\ BOD_5)} = 2.27\ lb\ O_2/\ lb\ BOD_5$$

2. Minimum Air Required for Conventional Activated Sludge Systems that are Intended to Nitrify (30 TAC §217.155; Table F-3)

$$= 2.2\ lbs\ O_2/\ lb\ BOD_5$$

3. Fine Bubble Requirements

The design diffuser submergence will vary from 12.7' to 20' based on the decantable volume. The required capacity will be based on the minimum submergence of 12.7' so adequate aeration can be achieved at all depths.

$$\frac{(300\ mg/l\ BOD_5)(8.34)(1.6\ MGD)(2.27\ lb\ O_2/\ lb\ BOD_5)(0.979)***}{(0.1000**)(0.23)(0.075)(1440)} = 3{,}471\ scfm$$

** TCEQ Wastewater Oxygen Transfer Efficiency for Fine Bubble (1.75%/ft. x (12.7) ft of submergence x 0.45).
*** TCEQ Chapter 217 Table F.5 Submergence Correction Factor for 12.7' of submergence.

ii. Aeration Requirements for Digesters

1. Diffused Air Requirements for Mixing

$$(112{,}053\ ft^3)(30\ scfm/ft^2)/1000 = 3{,}362\ scfm$$

iii. Aeration Requirements for Chlorine Contact Basin (4 mg/l DO minimum)

1. Fine Bubble Requirement for Dissolved Oxygen

$$(4)(1.6\ MGD)(8.34) = 53\ lb\ O_2\ /day$$

$$(53)(1.7***)/\ (0.075**)(0.075)(0.23)(1440) = 49\ scfm$$

**WOTE: 9.5 ft(1.75)(0.45)= 7.5 %
*** Correction Factor for 9.5 ft

i. Blower Capacity.

The facilities will include one proposed bank of blowers to serve the SBRs, one proposed bank of blowers to serve the digesters, and one proposed bank of blowers for the chlorine contact basins. Each bank of blowers will provide air to separate processes and will have independent piping with adequate spare blower capacity at each bank.

i. Aeration Requirements for SBRs

1. Proposed Blower Capacity
(5)(1,500 scfm) = 7,500 scfm

2. Firm Blower Capacity with Largest Unit Out of Service
(4)(1,500 scfm) = 6,000 scfm

ii. Aeration Requirements for Digesters

1. Proposed Blower Capacity
(4)(1,300 scfm) = 5,200 scfm

2. Firm Blower Capacity with Largest Unit Out of Service
(3)(1,300 scfm) = 3,900 scfm

iii. Aeration Requirements for Chlorine Contact Basins

1. Proposed Blower Capacity
(2)(100 scfm) = 200 scfm

2. Firm Blower Capacity with Largest Unit Out of Service
(1)(100 scfm) = 100 scfm

j. Chlorination Equipment

i. Chlorine Dosage Rate (Activated Sludge) = 8 mg/l

ii. Chlorine Feed Rate at Average Daily Flow
(1.60 MGD)(8.34)(8 mg/l) = 107 lbs/day

iii. Required Chlorine Feed Rate at Peak Flow
(6.40 MGD)(8.34)(8 mg/l) = 427 lbs/day

iv. Max Withdrawal Rate for one (1) one-ton cylinder
(8 lbs/day/°F)(65°F) = 520 lbs/day

One (1) one ton cylinder is required for treatment. One (1) additional one-ton cylinder will be kept on site at all times to comply with 30 TAC §217 requirements.

k. De-chlorination Equipment

i. Sulfur Dioxide Dosage Rate = 2 mg/l

ii. Sulfur Dioxide Feed Rate at Average Daily Flow
(1.60 MGD)(8.34)(2 mg/l) = 27 lbs/day

iii. Required Chlorine Feed Rate at Peak Flow
(6.40 MGD)(8.34)(2 mg/l) = 107 lbs/day

iv. Max Withdrawal Rate for one (1) one-ton cylinder
(6 lbs/day/°F)(65°F-30°F) = 210 lbs/day

One (1) one ton cylinder is required for treatment. One (1) additional one-ton cylinder will be kept on site at all times to comply with 30 TAC §217 requirements.

PHASE III – 1.90 MGD

I. SUMMARY

The Phase IIII facility will utilize a five-train true-batch sequencing batch reactor (SBR) that operates in a suspended growth activated sludge process for biochemical oxygen demand (BOD_5) and ammonia nitrogen (NH_3-N) reduction. Treatment units include an elevated headworks with a mechanical fine screen and mechanical coarse and manual bar screen backups, 5 SBR process basins, a disinfection basin, four (4) two-stage aerobic digesters, and a mechanical dewatering unit.

II. WASTEWATER TREATMENT PLANT DESIGN

A. DESIGN CRITERIA

1. Proposed Effluent Limits.

   a. BOD_5 = 10 mg/l (daily average)

   b. TSS = 15 mg/l (daily average)

   c. NH_3-N = 2 mg/l (daily average)

   d. *E.coli* = 63 CFU/100 mL (daily average)

   e. DO = 4 mg/l (daily average)

2. Process Criteria. The process criteria are taken from 30 TAC §217, Design Criteria for Sewerage Systems.

   a. Maximum Aeration Basin Organic Loading (lb BOD_5 /day/1,000 ft^3) = 35

   b. Minimum Oxygen Requirement in Conventional Activated Sludge Systems Intended to Nitrify (lb O_2/lb BOD_5) = 2.2

   c. Minimum Chlorine Contact Detention Time at Peak Flow (minutes) = 20

   d. Mean Cell Residence Time in Aerobic Digester* (days) = 28*

      *28-day SRT utilized instead of a 40-day SRT for use of a multi-stage digester per EPA publication “Control of Pathogens and Vector Attraction in Sewage Sludge.”

   e. Maximum Allowable Decant Rate with the Largest Basin Out of Service (gpm) = 5,278

B. PHASE III TREATMENT FACILITIES

1. Flow.

a. Average (Design) = 1.0Q = 1,900,000 gpd = 1,319 gpm

b. Peak (2 hour) = 4.0Q = 7,600,000 gpd = 5,278 gpm

2. Organic Loadings.

BOD_5 = (1.90 MGD)(8.34)(300 mg/L) = 4,754 Lbs BOD5/day

TSS = (1.90 MGD)(8.34)(350 mg/L) = 5,546 Lbs TSS/day

NH_3-N = (1.90 MGD)(8.34)(50 mg/L) = 792 Lbs NH3-N/day

TKN = (1.90 MGD)(8.34)(70 mg/L) = 1,109 Lbs TKN/day

The concentrations of BOD_5, TSS, NH_3-N, and TKN utilized to determine the organic loadings are based on the most recently available influent sample data (composite samples taken three times weekly for the period of January 2022 through April 2023).

3. Process Equipment.

a. Screening. This phase will utilize the existing elevated concrete headworks equipped with mechanical fine screening equipment hydraulically sized to pass the Phase II two-hour peak flow of 7.60 MGD, a mechanical coarse screen backup, and a backup manual bar screen. Flow will be directed from the headworks to the SBR basins.

b. SBR: Aeration Basin Volume. The proposed facilities will include four (4) existing SBR basins and one (1) proposed SBR basins sized at 40' wide by 118' long. The design water depth is assumed at 21'.

i. Total Required Volume
Required Volume Using Traditional Design Method (30 TAC §217 Guidelines)
(1.90 MGD)(8.34)(300 mg/L)/(35 lb. BOD /1,000 ft^3) = 135,823 ft^3

ii. Existing Volume
(4)[(40 ft x 118 ft)](21 ft) = 396,480 ft^3

iii. Proposed Volume
(1)[(40 ft x 118 ft)](21 ft) = 99,120 ft^3

iv. Proposed Volume with One Basin Out of Service (30 TAC §217.156(a)(2))
(4)[(40 ft x 118 ft)](21 ft) = 396,480 ft^3

c. SBR: Settling Area and Decant Equipment. The proposed facilities will include five (5) SBR basins sized at 40' wide by 118' long. The design maximum water depth is assumed at 21' and minimum water depth is assumed at 12.6'. The maximum decantable range is assumed at 6.9' during normal

operation. The SBR basins and equipment will be sized so that the maximum decant rate will not be exceeded at peak flow with one basin out of service and therefore an equalization basin downstream of the SBR basins will not be provided. The design decantable depth during peak flow events will be 8.4' so that the maximum decant rate does not exceed the peak 2-hour flow.

i. Surface Area

1. Minimum Surface Area at Peak Flow
(7,600,000 gpd)/(1,200 gpd/ft^2) = 6,333 ft^2

2. Total Proposed Surface Area with One Basin Out of Service
(4)(40 ft x 118 ft) = 18,880 ft^2

ii. Minimum Decantable Volume Per Basin with One Basin Out of Service (At Peak Flow)

1. Total Peak Flow Cycle Time = 282 minutes

2. Total Non-Decant Time per Peak Flow Cycle = 211.8 minutes

3. Minimum Decantable Volume per Peak Flow Cycle
(5,278 gpm)(211.8 min)/[(4 basins)(7.48)] = 37,361 ft^3

4. Total Proposed Decantable Volume per Basin
(40 ft x 118 ft)(8.4 ft) = 39,648 ft^3

iii. Maximum Decant Rate Per Basin with One Basin Out of Service (At Peak Flow)

1. Maximum Allowable Decant Rate
(Peak Flow Rate) = 5,278 gpm

2. Total Decant Time per Peak Flow Cycle = 70.2 minutes

3. Maximum Decant Rate per Basin
(Flow Rate to Empty Maximum Decantable Volume)
(37,361 ft^3)(7.48)/(70.2 minutes) = 3,981 gpm

d. Chlorine Contact Basin. The proposed facilities include two 4' by 200' chlorine contact basins (including baffles) designed to a 40:1 length to width ratio in a serpentine layout. The design water depth is at 9.5'.

i. Required Volume at Peak Flow
(5,278 gpm)(20 min)/(7.48) = 14,112 ft^3

ii. Total Proposed Volume (Accounts for Baffles)
(2) [(4 ft)(200 ft)](9.5 ft)] = 15,200 ft^3

iii. Actual Detention Time at Peak Flow
(15,200 ft^3)(7.48)/(5,278 gpm) = 21.5 minutes

e. Dechlorination Basin. The existing facilities include one 6' by 10' partitioned chamber and a 6' by 43.50' channel downstream of the chlorine contact basins. The design water depths are 8.88' and

1.0'.

i. Required Volume at Peak Flow
(5,278 gpm)(20 seconds)/[(60 seconds/minute)(7.48)] = 235 ft^3

ii. Total Existing Volume
(6 ft)(10 ft)(8.88 ft) +(6 ft)(43.50 ft)(1.0 ft) = 794 ft^3

iii. Actual Detention Time at Peak Flow
(794 ft^3)(7.48)(60 seconds/min)/(5,278 gpm) = 67 seconds

f. Aerobic Digester. The proposed 1.90 MGD phase includes utilizing the existing digester volume and converting the existing abandoned in place 88' diameter main process unit structure into an aerobic digester.

Assume 1 pound of solids produced per pound of BOD_5 applied; solids are 70% volatile organics; 30% of the volatiles are destroyed during digestion; 15,000 mg/l MLSS concentration in the digester on average for the thickened sludge.

i. Digester Sizing

1. Solids Production
(4,754 lb BOD_5 /day)/(1 lb solids/1 lb BOD_5) = 4,754 lb solids/day

2. Digested Solids Production
(4,754 lb solid/day)(1-(0.3)(0.7)) = 3,756 lb solids/day

3. Average Solids in Digester
(4,754 lb solids/day + 3,756 lb solids/day)/2 = 4,255 lb solids/day

4. Total Solids in Digester for 28-day SRT*
(4,255 lb solids/day)(28 days) = 119,130 lb solids

ii. Required Volume
(119,130 lb solids)(10^6)/[(8.34)(15,000 mg/l MLSS in digester)(7.48)]
= 127,310 ft^3

iii. Existing Digester Volume
Digester No. 1 = 20,776 ft^3
Digester No. 2 = 91,277 ft^3

iv. Proposed Digester Volume
(15.00 ft) (π/4) (88 ft)^2 – (15.00 ft)(88 ft)(1.50 ft) = 89,252 ft^3

iv. Total Digester Volume = 201,305 ft^3

*28-day SRT utilized instead of 40-day SRT for use of a multi-stage digester per EPA publication "Control of Pathogens and Vector Attraction in Sewage Sludge."

iv. Total Solids Detention Time = 44 days

g. Mechanical Dewatering Unit. The proposed phase includes one existing mechanical dewatering unit. The exist mechanical dewatering unit is sized to handle all digested sludge from the aerobic digesters. If the mechanical dewatering unit is out of service, the digesters are sized to stabilize all sludge and the digested sludge can be wet hauled.

h. Diffused Air Requirements.

i. Aeration Requirements for SBR
Proposed SBR Basins

1. Air Required for Treatment (30 TAC §217.155; Eq. F-2)

$$\frac{(1.2)(300\ mg/l\ BOD_5) + (4.6)(70\ mg/l\ TKN)}{(300\ mg/l\ BOD_5)} = 2.27\ lb\ O_2/\ lb\ BOD_5$$

2. Minimum Air Required for Conventional Activated Sludge Systems that are Intended to Nitrify (30 TAC §217.155; Table F-3)

$$= 2.2\ lbs\ O_2/\ lb\ BOD_5$$

3. Fine Bubble Requirements

The design diffuser submergence will vary from 11.6' to 20' based on the decantable volume. The required capacity will be based on the minimum submergence of 11.6' so adequate aeration can be achieved at all depths.

$$\frac{(300\ mg/l\ BOD_5)(8.34)(1.9\ MGD)(2.27\ lb\ O_2/\ lb\ BOD_5)(1.012)***}{(0.0945**)(0.23)(0.075)(1440)} = 4{,}652\ scfm$$

** TCEQ Wastewater Oxygen Transfer Efficiency for Fine Bubble (1.75%/ft. x (12) ft of submergence x 0.45).
*** TCEQ Chapter 217 Table F.5 Submergence Correction Factor for 11.6' of submergence.

ii. Aeration Requirements for Digesters

1. Coarse Bubble Requirements for Mixing

$$(201{,}305\ ft^3)(30\ scfm/ft^2)/1000 = 6{,}039\ scfm$$

iii. Aeration Requirements for Chlorine Contact Basin (4 mg/l DO minimum)

1. Fine Bubble Requirement for Dissolved Oxygen

$$(4)(1.9\ MGD)(8.34) = 63\ lb\ O_2\ /day$$

$$(63)(1.7***)/\ (0.075**)(0.075)(0.23)(1440) = 58\ scfm$$

**WOTE: 9.5 ft(1.75)(0.45)=7.5 %
*** Correction Factor for 9.5 ft

i. Blower Capacity.

The facilities will include one expanded existing bank of blowers to serve the SBRs, one expanded existing bank of blowers to serve the digesters, and one existing bank of blowers for the chlorine contact basins. Each bank of blowers will provide air to separate processes and will have independent piping with adequate spare blower capacity at each bank.

i. Aeration Requirements for SBRs

1. Existing Blower Capacity
(5)(1,500 scfm) = 7,500 scfm

2. Proposed Additional Blower Capacity
(1)(1,500 scfm) = 1,500 scfm

3. Firm Blower Capacity with Largest Unit Out of Service
(5)(1,500 scfm) = 7,500 scfm

ii. Aeration Requirements for Digesters

1. Existing Blower Capacity
(4)(1,300 scfm) = 5,200 scfm

2. Proposed Additional Blower Capacity
(2)(1,300 scfm) = 2,600 scfm

3. Firm Blower Capacity with Largest Unit Out of Service
(5)(1,300 scfm) = 6,500 scfm

iii. Aeration Requirements for Chlorine Contact Basins

1. Existing Blower Capacity
(2)(100 scfm) = 200 scfm

2. Firm Blower Capacity
(1)(100 scfm) = 100 scfm

j. Chlorination Equipment

i. Chlorine Dosage Rate (Activated Sludge) = 8 mg/l

ii. Chlorine Feed Rate at Average Daily Flow
(1.90 MGD)(8.34)(8 mg/l) = 127 lbs/day

iii. Required Chlorine Feed Rate at Peak Flow
(7.60 MGD)(8.34)(8 mg/l) = 507 lbs/day

iv. Max Withdrawal Rate for one (1) one-ton cylinder
(8 lbs/day/°F)(65°F) = 520 lbs/day

One (1) one ton cylinder is required for treatment. One (1) additional one-ton cylinder will be kept on site at all times to comply with 30 TAC §217 requirements.

k. De-chlorination Equipment

1.	Sulfur Dioxide Dosage Rate	=	2 mg/l
2.	Sulfur Dioxide Feed Rate at Average Daily Flow (1.90 MGD)(8.34)(2 mg/l)	=	32 lbs/day
3.	Required Chlorine Feed Rate at Peak Flow (7.60 MGD)(8.34)(2 mg/l)	=	127 lbs/day
4.	Max Withdrawal Rate for one (1) one-ton cylinder (6 lbs/day/°F)(65°F-30°F)	=	210 lbs/day

One (1) one ton cylinder is required for treatment. One (1) additional one-ton cylinder will be kept on site at all times to comply with 30 TAC §217 requirements.

ATTACHMENT L

FLOW SCHEMATICS

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

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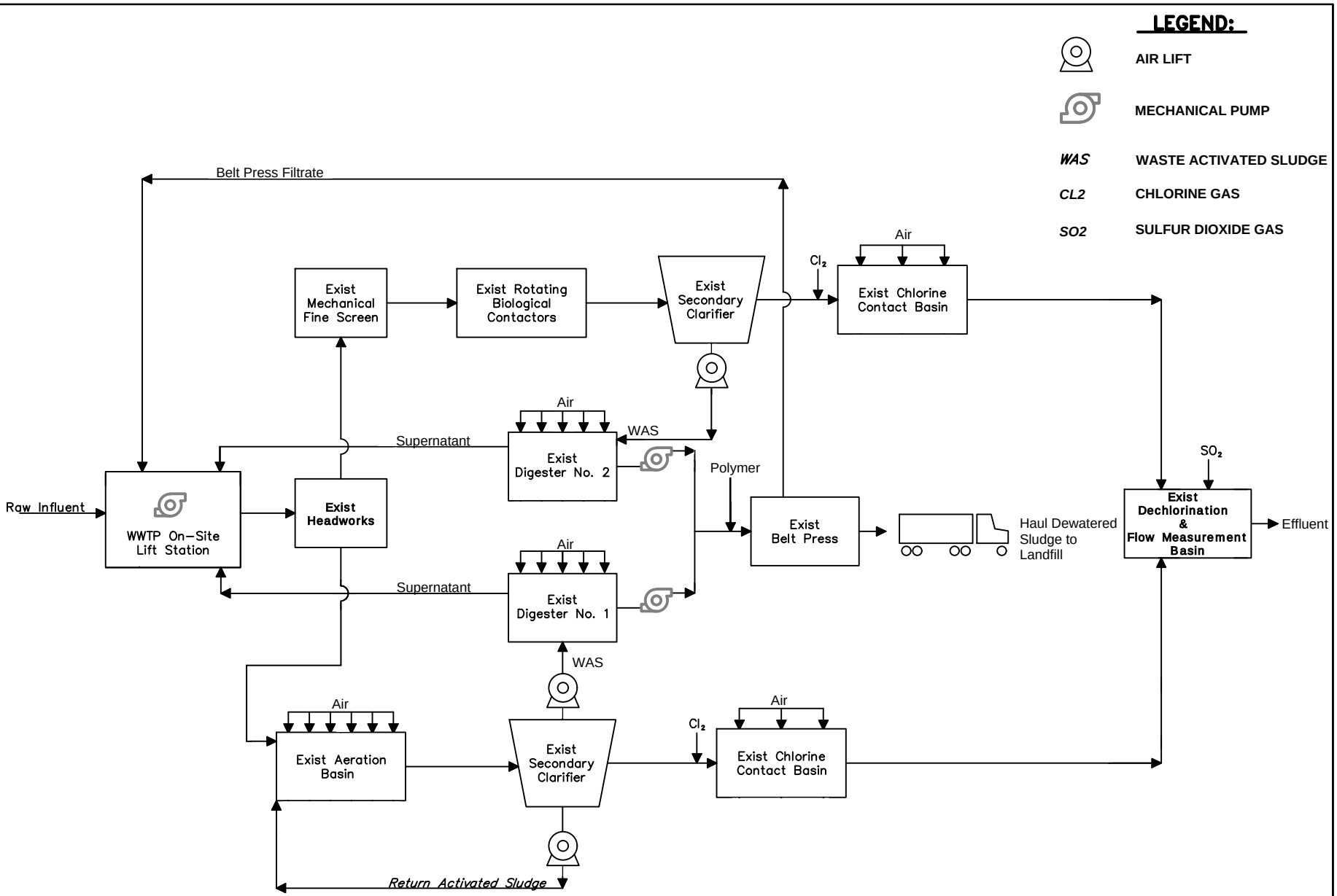

FLOW DIAGRAM PHASE I - 1.44 MGD

NOT TO SCALE

QUIDDITY

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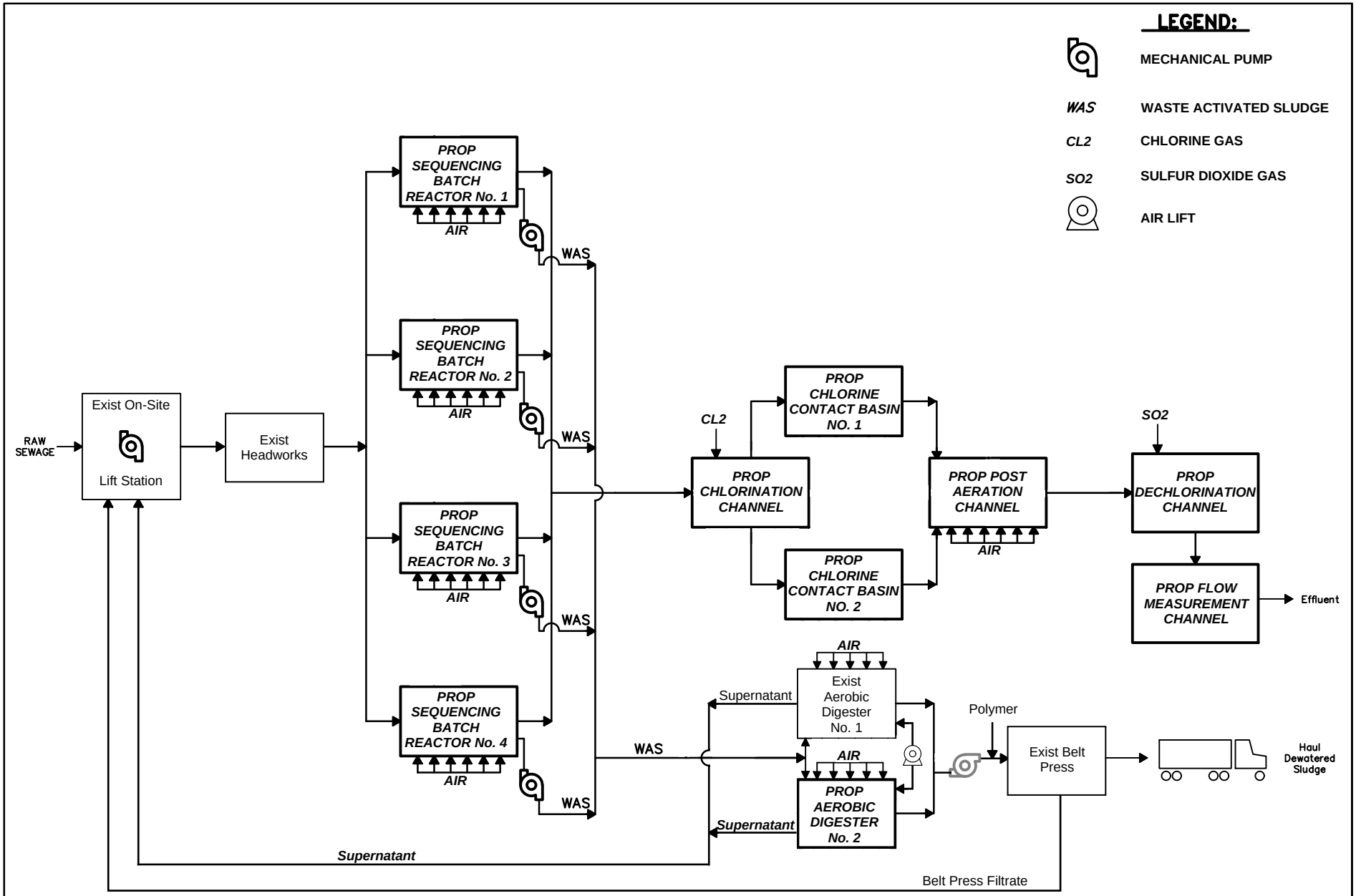

FLOW DIAGRAM PHASE II - 1.60 MGD

NOT TO SCALE

QUIDDITY

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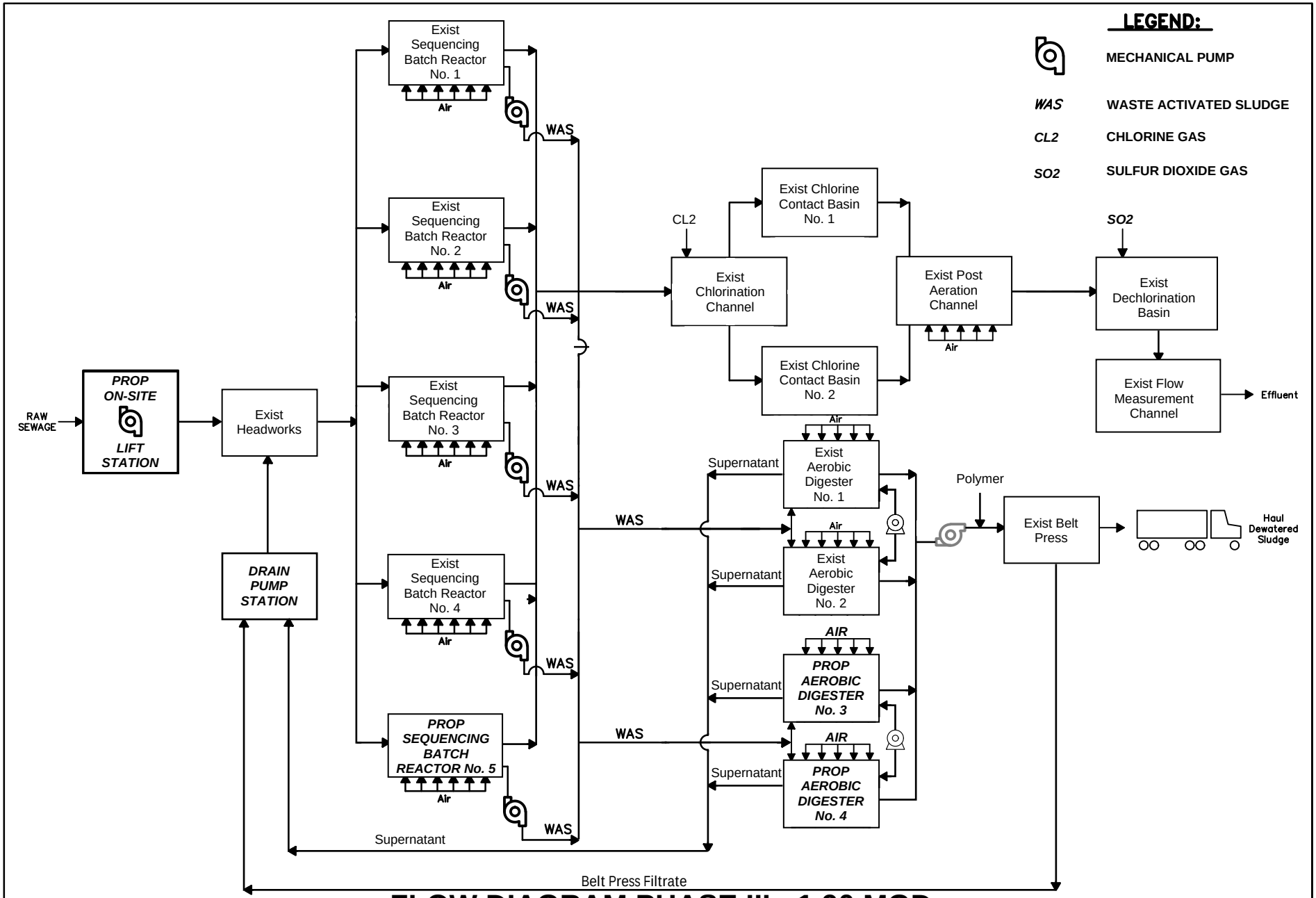

FLOW DIAGRAM PHASE III - 1.90 MGD

NOT TO SCALE

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ATTACHMENT M

SERVICE AREA MAP

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

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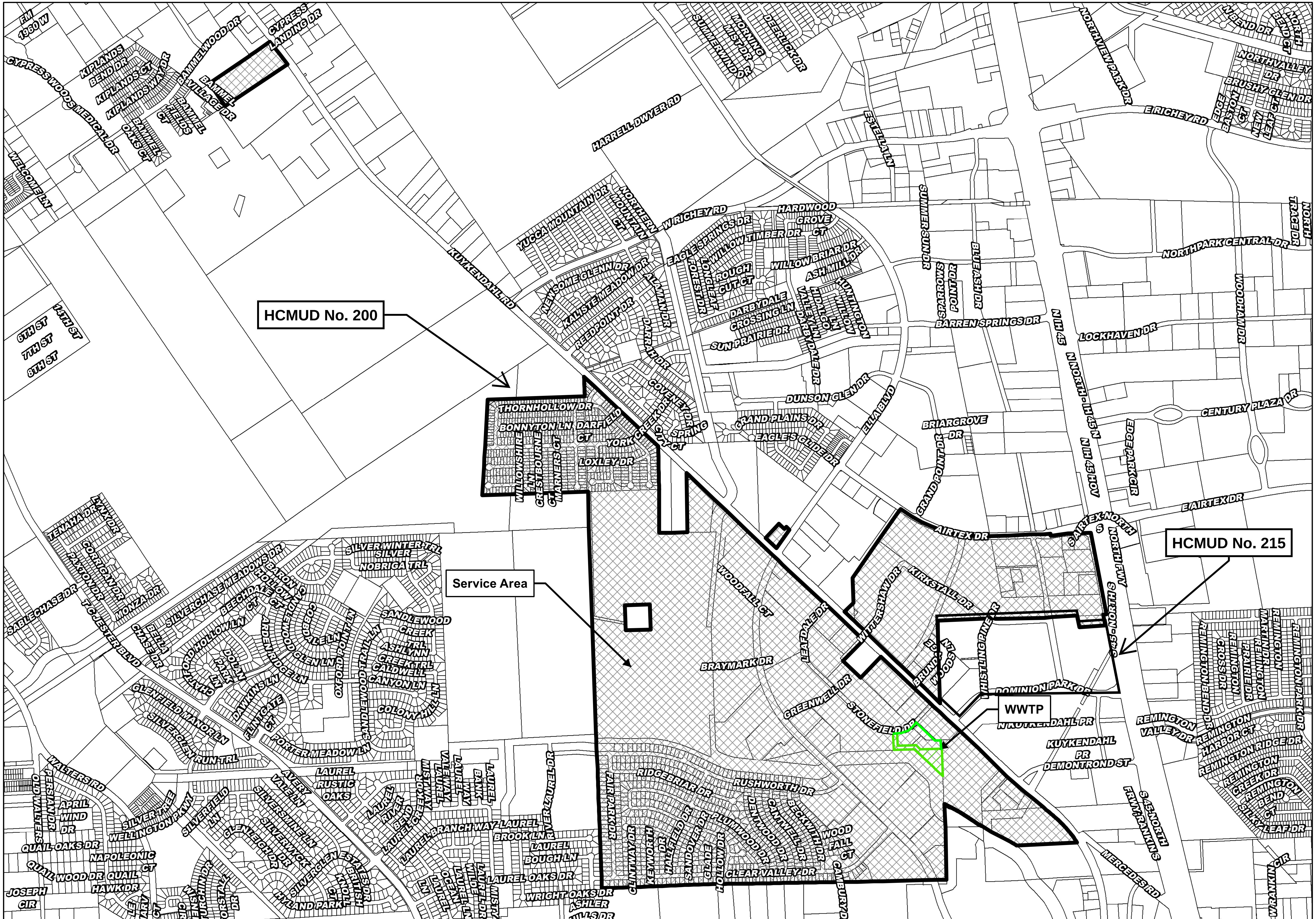

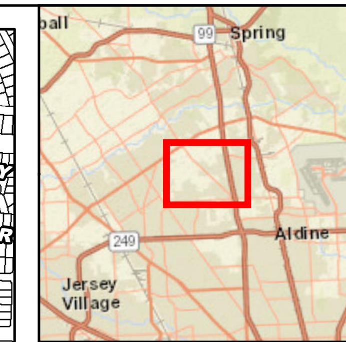

VICINITY MAP
1 INCH = 10 MILES

LEGEND

- Plant Boundary
- Service Area
- Service Area Boundary
- HCAD Parcels

SERVICE AREA MAP

HARRIS COUNTY MUD No. 200
HARRIS COUNTY, TEXAS

0 — 1,300
1 INCH : 1,300 FEET
IMAGERY PROVIDED BY NEARMAP

Disclaimer: This product is offered for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property, governmental and/or political boundaries or related facilities to said boundary. No express warranties are made by Quiddity Engineering concerning the accuracy, completeness, reliability, or usability of the information included within this exhibit.

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ATTACHMENT N

JUSTIFICATION

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

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Austin, Texas 78741
Tel: 512.441.9493
www.quiddity.com

JUSTIFICATION FOR PLANT EXPANSION
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 200

The Harris County Municipal Utility District No. 200 Wastewater Treatment Facility serves HCMUD 200 and HCMUD 215. This application is for a major amendment to increase the final phase flow to 1.9 million gallons per day (MGD) with an interim phase of 1.6 MGD. The current permit has one flow phase of 1.44 MGD.

At build out, there will be 1,360 residential connections, 9,406 apartment connections, and 109 commercial connections. For design purposes, the wastewater flow for residential, apartment, and commercial connections is 260 gallons per day per connection (gpd / conn), 135 gpd/conn, and 1,500 gpd/conn, respectively.

Following is the connection and flow projection for HCMUD 200 to complete build out:

Month / yr	Single family residential		Apartment Units		Commercial		**Total**	
	connections	flow (gpd)	connections	flow (gpd)	connections	flow (gpd)	**connections**	**flow (gpd)**
Jan-2024	1,121	291,460	4,386	592,110	72	108,000	**5,579**	**991,570**
Jan-2025	1,121	291,460	4,386	592,110	74	111,000	**5,581**	**994,570**
Jan-2026	1,126	292,760	4,386	592,110	80	120,000	**5,592**	**1,004,870**
Jan-2027	1,186	308,360	4,436	598,860	82	123,000	**5,704**	**1,030,220**
Jan-2028	1,246	323,960	4,996	674,460	106	159,000	**6,348**	**1,157,420**
Jan-2029	1,304	339,040	5,596	755,460	109	163,500	**7,009**	**1,258,000**
Jan-2030	1,360	353,600	6,196	836,460	109	163,500	**7,665**	**1,353,560**
Jan-2035	1,360	353,600	9,196	1,241,460	109	163,500	**10,665**	**1,758,560**
Aug-2035	1,360	353,600	9,406	1,269,810	109	163,500	**10,875**	**1,786,910**

Following is the construction schedule for the current and final plant phases:

Proposed flow	Interim I	Interim II	Final
Design Flow (MGD)	1.44	1.60	1.90
2-Hr Peak Flow (MGD)	5.76	6.40	7.60
Date construction to commence	---	5/2028	2/2030
Date construction completed and discharge begins	---	5/2029	2/2031

ATTACHMENT O

SLUDGE MANAGEMENT PLAN

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

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Austin, Texas 78741
Tel: 512.441.9493
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SLUDGE MANAGEMENT PLAN
HARRIS COUNTY MUD NO. 200
TPDES MAJOR AMENDMENT

INTRODUCTION

This sludge management and disposal plan is being submitted as an attachment to the TPDES permit major amendment application for Harris County MUD No. 200. The HCMUD 200 Wastewater Treatment Plant is a 1.44 MGD single stage nitrification activated sludge plant, with proposed future phases of 1.60 MGD and 1.90 MGD. The 1.44 MGD phase has effluent limits of 10 mg/l $CBOD_5$, 15 mg/l TSS, and report NH_3-N.

DIMENSIONS AND CAPACITIES

Excess solids generated from the activated plant will be wasted to an aerobic digester for further treatment. The digester has a volume of 37,455 ft^3 in the Interim I phase. The Interim II and Final phases will have digester volumes of 112,053 ft^3 and 201,305 ft^3, respectively. The dewatered stabilized sludge will then be hauled away to a TCEQ permitted land application site for disposal by a licensed sludge hauler.

SOLIDS GENERATION

Solids to be wasted from the activated sludge process are based on 1.0 pounds of TSS produced per pound of BOD applied. Following is the amount of solids generated by the wastewater treatment plant at design flow and at 75 percent, 50 percent and 25 percent of design flow:

Interim I Phase – 1.44 MGD		
Percent of Design Flow	Flow (MGD)	Solids Generated (lb/day)
25	0.36	901
50	0.72	1,801
75	1.08	2,702
100	1.44	3,603

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Interim II Phase – 1.60 MGD		
Percent of Design Flow	Flow (MGD)	Solids Generated (lb/day)
25	0.40	1,001
50	0.80	2,002
75	1.20	3,002
100	1.60	4,003

Final Phase – 1.90 MGD		
Percent of Design Flow	Flow (MGD)	Solids Generated (lb/day)
25	0.48	1,188
50	0.95	2,377
75	1.43	3,565
100	1.90	4,754

OPERATING PARAMETERS

The single stage nitrification activated sludge process works best between mixed liquor suspended solids (MLSS) concentrations of 2,000 – 6,000 mg/l. The operator will determine the mixed liquor concentration that produces the highest quality effluent taking into consideration factors such as hydraulic and organic loading, available air capacity, and solids handling. Field testing and laboratory analysis will be done to monitor the MLSS and maintain the appropriate solids concentration.

SOLIDS REMOVAL PROCEDURE

Laboratory analysis and field testing will be conducted to determine the solids concentration in the aeration basin. To maintain an appropriate solids inventory, the amount of solids to be wasted per day is equal to the amount of solids generated per day. This amount is stated in the SOLIDS GENERATION section of this plan. Excess solids will then be wasted from the bottom of the clarifier directly to the aerobic digester to maintain the appropriate solids concentration in the aeration basin.

SOLIDS REMOVAL SCHEDULE

It is assumed that 70% of the solids wasted to the digester are volatile solids and the volatile solids reduction is 30%. For every pound of solids wasted to the digester, 0.79 pounds of solids will need to be disposed of by land application. In addition, it is assumed that the solids can be thickened to 15,000 mg/l in the digester.

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At this concentration, a 37,455 ft^3 digester will hold 35,048 pounds of solids in the Interim I phase. In the Interim II phase, a 112,053 ft^3 digester will hold 104,853 pounds of solids. In the Final phase, a 201,305 ft^3 digester will hold 188,371 pounds of solids. The capacity of the digester divided by the pounds per day of solids to be disposed of will give the sludge hauling schedule.

Interim I Phase – 1.44 MGD		
Percent of Design Flow	Solids Disposed (lb/day)	Hauling Schedule (days)
25	712	49
50	1,423	25
75	2,135	16
100	2,846	12

Interim II Phase – 1.60 MGD		
Percent of Design Flow	Solids Disposed (lb/day)	Hauling Schedule (days)
25	791	133
50	1,581	66
75	2,372	44
100	3,163	33

Final Phase – 1.90 MGD		
Percent of Design Flow	Solids Disposed (lb/day)	Hauling Schedule (days)
25	939	201
50	1,878	100
75	2,817	67
100	3,756	50

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ULTIMATE SLUDGE DISPOSAL

Sludge will be liquid hauled from the plant by a TCEQ registered sludge transporter to a TCEQ permitted land application site or another wastewater treatment plant.

A manifest will be issued with each load of sludge that is hauled from the plant. The following information will be on the manifest to document ultimate disposal of the sludge:

1. Date of sludge hauling
2. Generator Name
3. Generator's address
4. Volume of sludge hauled
5. Name of transporter
6. TCEQ transporter registration number
7. Driver's name
8. Name of disposal site
9. TCEQ Site permit number
10. Date of disposal
11. Volume of sludge disposed

This information, along with laboratory and field data will be used to determine the amount of solids disposed of in dry weight form.

ATTACHMENT P

EFFLUENT ANALYSIS

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

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130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com

April 25, 2024

Laboratory Report

Accounts Payable
Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Report ID: 20240425085933DLH

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

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

Sincerely,

Deena Higginbotham
Director of Client Services

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Work Order Case Narrative

Work Order Case Narrative

Work Order Case Narrative

Work Order Case Narrative

Work Order Case Narrative

This report is a supplement to the original Test Report ID: 20240415123311DLH.

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

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TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results

Client Sample ID: 18 Mohm DI
Lab Sample ID: 24C1868-01
HC MUD 200 - Outfall 001 3 Part Grab Comp 1 [none]

Sample Matrix: Waste Water
Date Collected: 03/06/2024 7:40
Collected by: FERnando Alvarez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC1479	03/12/2024 15:51	LPC

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

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Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab
Lab Sample ID: 24C1868-02
HC MUD 200 - Outfall 001 3 Part Grab Comp 1 [none]

Sample Matrix: Waste Water
Date Collected: 03/06/2024 7:40
Collected by:

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC1479	03/12/2024 15:57	LPC

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TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: 18 Mohm DI
Lab Sample ID: 24C1869-01
HC MUD 200 - Outfall 001 3 Part Grab Comp 2 [none]

Sample Matrix: Waste Water
Date Collected: 03/06/2024 14:20
Collected by: FERnando Alvarez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC1479	03/12/2024 15:03	LPC

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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab
Lab Sample ID: 24C1869-02
HC MUD 200 - Outfall 001 3 Part Grab Comp 2 [none]

Sample Matrix: Waste Water
Date Collected: 03/06/2024 14:20
Collected by:

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC1479	03/12/2024 15:08	LPC

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

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TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: Outfall 001
Lab Sample ID: 24C2287-01
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 8:35
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
General Chemistry											
EPA 1664A	n-Hexane Extractable Material (O&G)	A	<5.00	U	mg/L	1	5.00	5.00	BHC1581	03/11/2024 09:08	IDC
Microbiology											
SM 9223 B (Colilert Quanti-Tray)	Escherichia coli (E. coli)	A	104		MPN/100 mL	1	1.00	1.00	BHC1212	03/08/2024 15:12	KIO
Field											
Calc	Flow Field	N	0.875		MGD	1	0.00	0.00	BHD1684	04/09/2024 16:15	DLH
Hach 10360	DO Field	N	8.16		mg/L	1	1.00	1.00	BHC1791	03/07/2024 08:35	FG
Calc	Flow Field	N	1.18		MGD	1	0.00	0.00	BHC1791	03/07/2024 08:35	FG
SM 4500-H+ B	pH	A	7.27		pH Units @ 25 °C	1	1.00	1.00	BHC1791	03/07/2024 08:35	FG
SM 4500-Cl G	Total Residual Chlorine	A	2.60		mg/L	1	0.25	0.25	BHC1791	03/07/2024 08:35	FG

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

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Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: Outfall 001
Lab Sample ID: 24C2287-01RE2
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 8:35
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
General Chemistry											
SM 4500-CN^- G	Amenable Cyanide (Rerun)	A	<10.0	U	ug/L	1	5.00	10.0	BHC3525	03/21/2024 15:48	TBB
SM 4500-CN^- C	Total Cyanide (Rerun)	A	<10.0	U	ug/L	1	5.00	10.0	BHC3525	03/21/2024 15:48	TBB

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

NWDLS
North Water District Laboratory Services, Inc.

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Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C2287-02
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 5:00
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Semivolatile Organic Compounds by GCMS											
ASTM D7065	Nonylphenol	N	<333	U	ug/L	2	5.92	333	BHC3499	03/28/2024 06:42	KRB
ASTM D7065	*Surrogate: n-NP-surr*		*89.4%*		*60-140*					*03/28/2024 06:42*	
Organics by GC											
SM 6640 B	2,4-D	A	<0.237	U, C+	ug/L	2	0.237	0.700	BHC2219	03/16/2024 14:33	KRB
SM 6640 B	Silvex (2,4,5-TP)	A	<0.239	U	ug/L	2	0.239	0.300	BHC2219	03/16/2024 14:33	KRB
SM 6640 B	*Surrogate: DCAA-surr*		*112%*		*70-130*					*03/16/2024 14:33*	
EPA 1657	Azinphos-methyl (Guthion)	A	<0.0344	U	ug/L	1	0.0344	0.103	BHC2474	03/16/2024 03:21	KRB
EPA 1657	Chlorpyrifos	A	<0.0265	U	ug/L	1	0.0265	0.0516	BHC2474	03/16/2024 03:21	KRB
EPA 1657	Demeton	A	<0.0133	U	ug/L	1	0.0133	0.206	BHC2474	03/16/2024 03:21	KRB
EPA 1657	Diazinon	A	<0.0332	U	ug/L	1	0.0332	0.516	BHC2474	03/16/2024 03:21	KRB
EPA 1657	Malathion	A	<0.0137	U	ug/L	1	0.0137	0.103	BHC2474	03/16/2024 03:21	KRB
EPA 1657	Parathion, ethyl	A	<0.0214	U	ug/L	1	0.0214	0.103	BHC2474	03/16/2024 03:21	KRB
EPA 1657	*Surrogate: Tributyl Phosphate-surr*		*113%*		*40-120*					*03/16/2024 03:21*	
EPA 1657	*Surrogate: Triphenyl Phosphate-surr*		*82.7%*		*40-120*					*03/16/2024 03:21*	
Metals, Total											
EPA 200.8	Aluminum	A	28.1		ug/L	1	0.167	6.25	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Antimony	A	<5.00	U	ug/L	1	0.0589	5.00	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Arsenic	A	2.40		ug/L	1	0.0468	0.500	BHC1568	03/22/2024 11:39	TBB
EPA 200.8	Barium	A	164		ug/L	1	0.0200	3.00	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Beryllium	A	<0.500	U	ug/L	1	0.0137	0.500	BHC1568	03/22/2024 16:05	TBB
EPA 200.8	Cadmium	A	<1.00	U	ug/L	1	0.00798	1.00	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Chromium	A	<3.00	U	ug/L	1	0.0839	3.00	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Copper	A	10.2		ug/L	1	0.182	2.00	BHC1568	03/13/2024 09:48	JKC
Calc	Chromium (III)		<0.00300		mg/L	1	8.39E-5	0.00300	[CALC]	03/13/2024 09:48	JKC
EPA 200.8	Lead	A	<0.500	U	ug/L	1	0.0120	0.500	BHC1568	03/13/2024 13:16	JKC
EPA 200.8	Nickel	A	<2.00	U	ug/L	1	0.0398	2.00	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Selenium	A	<5.00	U	ug/L	1	0.354	5.00	BHC1568	03/13/2024 13:16	JKC
EPA 200.8	Silver	A	<0.500	U	ug/L	1	0.00467	0.500	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Thallium	A	<0.500	U	ug/L	1	0.0617	0.500	BHC1568	03/13/2024 09:48	JKC
EPA 200.8	Zinc	A	27.0		ug/L	1	0.207	5.00	BHC1568	03/13/2024 09:48	JKC
General Chemistry											
SM 2320 B	Alkalinity as CaCO3	A	172		mg/L	1	10.0	10.0	BHC1286	03/08/2024 12:54	AKA
SM 5210 B	Carbonaceous BOD (CBOD)	A	15.8	FF	mg/L	13514	2.03	2.03	BHC1305	03/13/2024 10:48	JDD
EPA 300.0	Chloride	A	71.6		mg/L	10	0.345	10.0	BHC1389	03/08/2024 16:57	ORP

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04/25/2024 08:59

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)
Lab Sample ID: 24C2287-02
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 5:00
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
General Chemistry (Continued)											
SM 2510 B	Conductivity	A	717		umhos/cm @ 25 °C	1	2.00	2.00	BHC1286	03/08/2024 12:54	AKA
EPA 300.0	Fluoride	A	0.302		mg/L	1	0.0105	0.250	BHC1389	03/08/2024 16:37	ORP
EPA 350.1	Ammonia as N	A	18.8		mg/L	50	1.00	2.50	BHC1436	03/11/2024 14:18	GJG
EPA 300.0	Nitrate as N	A	4280		ug/L	1	14.2	100	BHC1389	03/08/2024 16:37	ORP
EPA 300.0	Nitrite as N	A	<50.0	U	ug/L	1	5.10	50.0	BHC1389	03/08/2024 16:37	ORP
SM 2540 C	Residue-filterable (TDS)	A	422		mg/L	1	10.0	10.0	BHC1266	03/11/2024 10:50	BP
SM 4500-NH3 C	Total Kjeldahl Nitrogen - (TKN)	A	21.8		mg/L	1	0.100	1.00	BHC1897	03/13/2024 12:40	GIW
EPA 365.1	Total Phosphorus	A	3.71		mg/L	1	0.117	0.200	BHC1340	03/13/2024 09:13	TBB
SM 2540 D	Residue-nonfilterable (TSS)	A	8.63		mg/L	1	1.00	1.00	BHC1463	03/11/2024 10:59	ENR

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Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C2287-02RE1
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 5:00
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
General Chemistry											
EPA 300.0	Sulfate (Rerun)	A	29.5		mg/L	1	0.0341	1.00	BHC1541	03/10/2024 00:04	ORP

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Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab
Lab Sample ID: 24C2287-03
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 8:35
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC1479	03/12/2024 14:58	LPC

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Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab Composite
Lab Sample ID: 24C2287-04
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 8:35
Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Volatile Organic Compounds by GCMS										
EPA 624.1	1,1,1-Trichloroethane	A	<10.0 U	ug/L	1	0.622	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,1,2,2-Tetrachloroethane	A	<10.0 U	ug/L	1	0.867	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,1,2-Trichloroethane	A	<10.0 U	ug/L	1	0.789	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,1-Dichloroethane	A	<10.0 U	ug/L	1	0.967	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,1-Dichloroethylene	A	<10.0 U	ug/L	1	0.849	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,2,4-Trichlorobenzene	N	<5.00 U	ug/L	1	1.00	5.00	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,2-Dibromoethane (EDB, Ethylene dibromide)	A	<10.0 U	ug/L	1	0.706	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,2-Dichlorobenzene (o-Dichlorobenzene)	A	<10.0 U	ug/L	1	0.881	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,2-Dichloroethane (Ethylene dichloride)	A	<10.0 U	ug/L	1	0.870	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,2-Dichloropropane	A	<10.0 U	ug/L	1	0.854	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,3-Dichlorobenzene (m-Dichlorobenzene)	A	<10.0 U	ug/L	1	0.717	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<10.0 U	ug/L	1	0.641	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	2-Butanone (Methyl ethyl ketone, MEK)	A	<50.0 U	ug/L	1	7.38	50.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	2-Chloroethyl vinyl ether	A	<10.0 U	ug/L	1	3.14	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Acrolein (Propenal)	A	<50.0 U	ug/L	1	5.68	50.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Acrylonitrile	A	<50.0 U	ug/L	1	1.60	50.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Benzene	A	<10.0 U	ug/L	1	0.604	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Bromodichloromethane	A	<10.0 U	ug/L	1	0.727	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Bromoform	A	<10.0 U	ug/L	1	0.678	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Carbon tetrachloride	A	<2.00 U	ug/L	1	0.500	2.00	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Chlorobenzene	A	<10.0 U	ug/L	1	0.724	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Chlorodibromomethane	A	<10.0 U	ug/L	1	0.802	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Chloroethane (Ethyl chloride)	A	<50.0 U	ug/L	1	1.30	50.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Chloroform	A	<10.0 B, U	ug/L	1	0.688	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	cis-1,3-Dichloropropene	A	<10.0 U	ug/L	1	0.580	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Ethylbenzene	A	<10.0 U	ug/L	1	0.727	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Methyl bromide (Bromomethane)	A	<50.0 U	ug/L	1	1.42	50.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Methyl chloride (Chloromethane)	A	<50.0 U	ug/L	1	0.765	50.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Methylene chloride (Dichloromethane)	A	<20.0 U	ug/L	1	1.60	20.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Tetrachloroethylene (Perchloroethylene)	A	<10.0 U	ug/L	1	0.703	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Toluene	A	<10.0 U	ug/L	1	0.649	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Total Trihalomethanes (TTHMs)	A	<10.0 U	ug/L	1	2.00	10.0	BHC1087	03/07/2024 20:39	EM

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Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab Composite (Continued)
Lab Sample ID: 24C2287-04
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 8:35
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Volatile Organic Compounds by GCMS (Continued)											
EPA 624.1	trans-1,2-Dichloroethylene	A	<10.0	U	ug/L	1	0.899	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	trans-1,3-Dichloropropylene	A	<10.0	U	ug/L	1	0.496	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Trichloroethene (Trichloroethylene)	A	<10.0	U	ug/L	1	0.744	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	Vinyl chloride (Chloroethene)	A	<10.0	U	ug/L	1	1.30	10.0	BHC1087	03/07/2024 20:39	EM
EPA 624.1	*Surrogate: 4-Bromofluorobenzene-surr*		*97.6%*		*70-130*					*03/07/2024 20:39*	
EPA 624.1	*Surrogate: 1,2-Dichloroethane-d4-surr*		*93.4%*		*70-130*					*03/07/2024 20:39*	
EPA 624.1	*Surrogate: Dibromofluoromethane-surr*		*95.9%*		*70-130*					*03/07/2024 20:39*	
EPA 624.1	*Surrogate: Toluene-d8-surr*		*101%*		*70-130*					*03/07/2024 20:39*	

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Sample Results
(Continued)

Client Sample ID: 18 Mohm DI
Lab Sample ID: 24C2287-05
HC MUD 200 - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/07/2024 8:35
Collected by: Francisco Gutierrez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC1479	03/12/2024 14:53	LPC

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Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C5240-01
HC MUD 200 - Permit Renewal - Recollect [none]

Sample Matrix: Waste Water
Date Collected: 03/26/2024 5:00
Collected by: Fernando Alvarez

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Dissolved											
SM 3500-Cr B	Chromium (VI)	A	7.34		ug/L	1	1.50	3.00	BHC4631	03/28/2024 12:29	JVG

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Quality Control

Volatile Organic Compounds by GCMS

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1087 - EPA 624										
Blank (BHC1087-BLK1)					Prepared & Analyzed: 03/07/2024					
1,1,1-Trichloroethane	<2.00	U	2.00	ug/L						
1,1,2,2-Tetrachloroethane	<3.00	U	3.00	ug/L						
1,1,2-Trichloroethane	<2.00	U	2.00	ug/L						
1,1-Dichloroethane	<3.00	U	3.00	ug/L						
1,1-Dichloroethylene	<3.00	U	3.00	ug/L						
1,2,4-Trichlorobenzene	<5.00	U	5.00	ug/L						
1,2-Dibromoethane (EDB, Ethylene dibromide)	<2.00	U	2.00	ug/L						
1,2-Dichlorobenzene (o-Dichlorobenzene)	<3.00	U	3.00	ug/L						
1,2-Dichloroethane (Ethylene dichloride)	<3.00	U	3.00	ug/L						
1,2-Dichloropropane	<3.00	U	3.00	ug/L						
1,3-Dichlorobenzene (m-Dichlorobenzene)	<2.00	U	2.00	ug/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<2.00	U	2.00	ug/L						
2-Butanone (Methyl ethyl ketone, MEK)	<22.0	U	22.0	ug/L						
2-Chloroethyl vinyl ether	<9.00	U	9.00	ug/L						
Acrolein (Propenal)	<17.0	U	17.0	ug/L						
Acrylonitrile	<5.00	U	5.00	ug/L						
Benzene	<2.00	U	2.00	ug/L						
Bromodichloromethane	<2.00	U	2.00	ug/L						
Bromoform	<2.00	U	2.00	ug/L						
Carbon tetrachloride	<1.00	U	1.00	ug/L						
Chlorobenzene	<2.00	U	2.00	ug/L						
Chlorodibromomethane	<2.00	U	2.00	ug/L						
Chloroethane (Ethyl chloride)	<4.00	U	4.00	ug/L						
Chloroform	3.01		2.00	ug/L						
cis-1,3-Dichloropropene	<2.00	U	2.00	ug/L						
Ethylbenzene	<2.00	U	2.00	ug/L						
Methyl bromide (Bromomethane)	<4.00	U	4.00	ug/L						
Methyl chloride (Chloromethane)	<2.00	U	2.00	ug/L						
Methylene chloride (Dichloromethane)	<5.00	U	5.00	ug/L						
Tetrachloroethylene (Perchloroethylene)	<2.00	U	2.00	ug/L						
Toluene	<2.00	U	2.00	ug/L						
Total Trihalomethanes (TTHMs)	<10.0	U	10.0	ug/L						
trans-1,2-Dichloroethylene	<3.00	U	3.00	ug/L						
trans-1,3-Dichloropropylene	<1.00	U	1.00	ug/L						
Trichloroethene (Trichloroethylene)	<2.00	U	2.00	ug/L						
Vinyl chloride (Chloroethene)	<4.00	U	4.00	ug/L						

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Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1087 - EPA 624 (Continued)										
LCS (BHC1087-BS1)					Prepared & Analyzed: 03/07/2024					
1,1,1-Trichloroethane	39.1		2.00	ug/L	50.0		78.1	70-130		
1,1,2,2-Tetrachloroethane	44.6		3.00	ug/L	50.0		89.2	60-140		
1,1,2-Trichloroethane	43.5		2.00	ug/L	50.0		87.1	70-130		
1,1-Dichloroethane	40.7		3.00	ug/L	50.0		81.4	70-130		
1,1-Dichloroethylene	40.0		3.00	ug/L	50.0		80.0	50-150		
1,2,4-Trichlorobenzene	40.8		5.00	ug/L	50.0		81.6	70-130		
1,2-Dibromoethane (EDB, Ethylene dibromide)	42.1		2.00	ug/L	50.0		84.2	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	41.5		3.00	ug/L	50.0		83.1	65-135		
1,2-Dichloroethane (Ethylene dichloride)	40.2		3.00	ug/L	50.0		80.4	70-130		
1,2-Dichloropropane	41.9		3.00	ug/L	50.0		83.9	35-165		
1,3-Dichlorobenzene (m-Dichlorobenzene)	41.1		2.00	ug/L	50.0		82.1	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	40.7		2.00	ug/L	50.0		81.3	65-135		
2-Butanone (Methyl ethyl ketone, MEK)	431		22.0	ug/L	500		86.1	70-130		
2-Chloroethyl vinyl ether	44.9		9.00	ug/L	50.0		89.8	0-225		
Acrolein (Propenal)	234		17.0	ug/L	250		93.7	60-140		
Acrylonitrile	49.4		5.00	ug/L	50.0		98.8	60-140		
Benzene	42.0		2.00	ug/L	50.0		84.0	65-135		
Bromodichloromethane	49.9		2.00	ug/L	50.0		99.7	65-135		
Bromoform	45.5		2.00	ug/L	50.0		90.9	70-130		
Carbon tetrachloride	40.4		1.00	ug/L	50.0		80.8	70-130		
Chlorobenzene	42.7		2.00	ug/L	50.0		85.4	65-135		
Chlorodibromomethane	49.9		2.00	ug/L	50.0		99.7	70-135		
Chloroethane (Ethyl chloride)	39.6		4.00	ug/L	50.0		79.2	40-160		
Chloroform	43.0		2.00	ug/L	50.0		85.9	70-135		
cis-1,3-Dichloropropene	44.1		2.00	ug/L	50.0		88.1	25-175		
Ethylbenzene	41.4		2.00	ug/L	50.0		82.7	60-140		
Methyl bromide (Bromomethane)	41.1		4.00	ug/L	50.0		82.3	15-185		
Methyl chloride (Chloromethane)	40.3		2.00	ug/L	50.0		80.7	0-205		
Methylene chloride (Dichloromethane)	40.6		5.00	ug/L	50.0		81.1	60-140		
Tetrachloroethylene (Perchloroethylene)	35.8		2.00	ug/L	50.0		71.6	70-130		
Toluene	41.9		2.00	ug/L	50.0		83.8	70-130		
Total Trihalomethanes (TTHMs)	188		10.0	ug/L	200		94.1	70-130		
trans-1,2-Dichloroethylene	40.5		3.00	ug/L	50.0		80.9	70-130		
trans-1,3-Dichloropropylene	42.9		1.00	ug/L	50.0		85.7	50-150		
Trichloroethene (Trichloroethylene)	41.4		2.00	ug/L	50.0		82.7	65-135		
Vinyl chloride (Chloroethene)	39.3		4.00	ug/L	50.0		78.7	5-195		
Surrogate: 4-Bromofluorobenzene-surr			*50.9*	*ug/L*	*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*48.3*	*ug/L*	*50.0*		*96.5*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*49.3*	*ug/L*	*50.0*		*98.6*	*70-130*		
Surrogate: Toluene-d8-surr			*49.2*	*ug/L*	*50.0*		*98.5*	*70-130*		

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Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1087 - EPA 624 (Continued)										
LCS Dup (BHC1087-BSD1)					Prepared & Analyzed: 03/07/2024					
1,1,1-Trichloroethane	38.6		2.00	ug/L	50.0		77.2	70-130	1.19	36
1,1,2,2-Tetrachloroethane	43.8		3.00	ug/L	50.0		87.6	60-140	1.82	61
1,1,2-Trichloroethane	41.5		2.00	ug/L	50.0		83.0	70-130	4.80	45
1,1-Dichloroethane	39.2		3.00	ug/L	50.0		78.5	70-130	3.58	40
1,1-Dichloroethylene	38.0		3.00	ug/L	50.0		75.9	50-150	5.22	32
1,2,4-Trichlorobenzene	41.7		5.00	ug/L	50.0		83.3	70-130	2.09	30
1,2-Dibromoethane (EDB, Ethylene dibromide)	40.4		2.00	ug/L	50.0		80.8	70-130	4.07	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	41.5		3.00	ug/L	50.0		82.9	65-135	0.167	57
1,2-Dichloroethane (Ethylene dichloride)	39.1		3.00	ug/L	50.0		78.3	70-130	2.69	49
1,2-Dichloropropane	42.1		3.00	ug/L	50.0		84.3	35-165	0.463	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	42.2		2.00	ug/L	50.0		84.3	70-130	2.60	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	41.1		2.00	ug/L	50.0		82.2	65-135	1.05	57
2-Butanone (Methyl ethyl ketone, MEK)	422		22.0	ug/L	500		84.4	70-130	2.01	30
2-Chloroethyl vinyl ether	44.6		9.00	ug/L	50.0		89.2	0-225	0.714	71
Acrolein (Propenal)	223		17.0	ug/L	250		89.2	60-140	4.88	60
Acrylonitrile	46.8		5.00	ug/L	50.0		93.6	60-140	5.44	60
Benzene	41.0		2.00	ug/L	50.0		81.9	65-135	2.54	61
Bromodichloromethane	48.5		2.00	ug/L	50.0		96.9	65-135	2.83	56
Bromoform	43.0		2.00	ug/L	50.0		86.0	70-130	5.53	42
Carbon tetrachloride	38.8		1.00	ug/L	50.0		77.6	70-130	4.10	41
Chlorobenzene	40.9		2.00	ug/L	50.0		81.9	65-135	4.21	53
Chlorodibromomethane	47.1		2.00	ug/L	50.0		94.3	70-135	5.59	50
Chloroethane (Ethyl chloride)	37.2		4.00	ug/L	50.0		74.4	40-160	6.28	78
Chloroform	41.0		2.00	ug/L	50.0		82.0	70-135	4.71	54
cis-1,3-Dichloropropene	41.9		2.00	ug/L	50.0		83.8	25-175	5.07	58
Ethylbenzene	40.0		2.00	ug/L	50.0		80.0	60-140	3.31	63
Methyl bromide (Bromomethane)	39.1		4.00	ug/L	50.0		78.1	15-185	5.20	61
Methyl chloride (Chloromethane)	38.7		2.00	ug/L	50.0		77.5	0-205	4.03	60
Methylene chloride (Dichloromethane)	39.2		5.00	ug/L	50.0		78.4	60-140	3.47	28
Tetrachloroethylene (Perchloroethylene)	35.9		2.00	ug/L	50.0		71.9	70-130	0.352	39
Toluene	40.6		2.00	ug/L	50.0		81.1	70-130	3.18	41
Total Trihalomethanes (TTHMs)	180		10.0	ug/L	200		89.8	70-130	4.64	30
trans-1,2-Dichloroethylene	39.8		3.00	ug/L	50.0		79.6	70-130	1.62	45
trans-1,3-Dichloropropylene	41.7		1.00	ug/L	50.0		83.4	50-150	2.80	86
Trichloroethene (Trichloroethylene)	39.6		2.00	ug/L	50.0		79.2	65-135	4.39	48
Vinyl chloride (Chloroethene)	38.0		4.00	ug/L	50.0		76.1	5-195	3.40	66
Surrogate: 4-Bromofluorobenzene-surr			*49.6*	*ug/L*	*50.0*		*99.3*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*49.0*	*ug/L*	*50.0*		*98.0*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*49.6*	*ug/L*	*50.0*		*99.1*	*70-130*		
Surrogate: Toluene-d8-surr			*49.1*	*ug/L*	*50.0*		*98.2*	*70-130*		

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Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1087 - EPA 624 (Continued)										
Matrix Spike (BHC1087-MS1)	**Source: 24C2287-04**				Prepared & Analyzed: 03/07/2024					
1,1,1-Trichloroethane	20.2	J1	2.00	ug/L	50.0	<2.00	40.4	52-162		
1,1,2,2-Tetrachloroethane	21.0	J1	3.00	ug/L	50.0	<3.00	41.9	46-157		
1,1,2-Trichloroethane	19.6	J1	2.00	ug/L	50.0	<2.00	39.2	52-150		
1,1-Dichloroethane	20.8	J1	3.00	ug/L	50.0	<3.00	41.5	59-155		
1,1-Dichloroethylene	21.1		3.00	ug/L	50.0	<3.00	42.3	0-234		
1,2,4-Trichlorobenzene	21.0	J1	5.00	ug/L	50.0	1.38	39.3	70-130		
1,2-Dibromoethane (EDB, Ethylene dibromide)	19.5	J1	2.00	ug/L	50.0	<2.00	39.0	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	20.8		3.00	ug/L	50.0	<3.00	41.7	18-190		
1,2-Dichloroethane (Ethylene dichloride)	19.1	J1	3.00	ug/L	50.0	<3.00	38.2	49-155		
1,2-Dichloropropane	20.5		3.00	ug/L	50.0	<3.00	40.9	0-210		
1,3-Dichlorobenzene (m-Dichlorobenzene)	20.7	J1	2.00	ug/L	50.0	<2.00	41.3	59-156		
1,4-Dichlorobenzene (p-Dichlorobenzene)	21.1		2.00	ug/L	50.0	<2.00	42.2	18-190		
2-Butanone (Methyl ethyl ketone, MEK)	207	J1	22.0	ug/L	500	<22.0	41.4	70-130		
2-Chloroethyl vinyl ether	38.0		9.00	ug/L	50.0	<9.00	76.0	0-305		
Acrolein (Propenal)	172		17.0	ug/L	250	<17.0	68.8	40-160		
Acrylonitrile	25.3		5.00	ug/L	50.0	<5.00	50.5	40-160		
Benzene	20.8		2.00	ug/L	50.0	<2.00	41.5	37-151		
Bromodichloromethane	21.3		2.00	ug/L	50.0	<2.00	42.6	35-155		
Bromoform	18.6	J1	2.00	ug/L	50.0	<2.00	37.2	45-169		
Carbon tetrachloride	19.9	J1	1.00	ug/L	50.0	<1.00	39.7	70-140		
Chlorobenzene	21.3		2.00	ug/L	50.0	<2.00	42.6	37-160		
Chlorodibromomethane	17.7	J1	2.00	ug/L	50.0	<2.00	35.5	53-149		
Chloroethane (Ethyl chloride)	40.9		4.00	ug/L	50.0	<4.00	81.7	14-230		
Chloroform	22.5	J1	2.00	ug/L	50.0	3.56	37.8	51-138		
cis-1,3-Dichloropropene	20.4		2.00	ug/L	50.0	<2.00	40.9	0-227		
Ethylbenzene	20.1		2.00	ug/L	50.0	<2.00	40.1	37-162		
Methyl bromide (Bromomethane)	38.6		4.00	ug/L	50.0	<4.00	77.1	0-242		
Methyl chloride (Chloromethane)	41.6		2.00	ug/L	50.0	<2.00	83.2	0-273		
Methylene chloride (Dichloromethane)	20.4		5.00	ug/L	50.0	<5.00	40.8	0-221		
Tetrachloroethylene (Perchloroethylene)	18.3	J1	2.00	ug/L	50.0	<2.00	36.5	64-148		
Toluene	22.9	J1	2.00	ug/L	50.0	3.30	39.3	47-150		
Total Trihalomethanes (TTHMs)	80.1	J1	10.0	ug/L	200	3.56	38.3	70-130		
trans-1,2-Dichloroethylene	21.4	J1	3.00	ug/L	50.0	<3.00	42.9	54-156		
trans-1,3-Dichloropropylene	20.3		1.00	ug/L	50.0	<1.00	40.7	17-183		
Trichloroethene (Trichloroethylene)	20.9	J1	2.00	ug/L	50.0	<2.00	41.8	70-157		
Vinyl chloride (Chloroethene)	41.4		4.00	ug/L	50.0	<4.00	82.9	0-251		
Surrogate: 4-Bromofluorobenzene-surr			*49.6*	*ug/L*	*50.0*		*99.2*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*48.6*	*ug/L*	*50.0*		*97.1*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*49.8*	*ug/L*	*50.0*		*99.5*	*70-130*		
Surrogate: Toluene-d8-surr			*49.7*	*ug/L*	*50.0*		*99.5*	*70-130*		

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Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1087 - EPA 624 (Continued)										
Matrix Spike Dup (BHC1087-MSD1)	**Source: 24C2287-04**				Prepared & Analyzed: 03/07/2024					
1,1,1-Trichloroethane	41.6	J1	2.00	ug/L	50.0	<2.00	83.2	52-162	69.3	36
1,1,2,2-Tetrachloroethane	43.0	J1	3.00	ug/L	50.0	<3.00	86.0	46-157	68.9	61
1,1,2-Trichloroethane	43.9	J1	2.00	ug/L	50.0	<2.00	87.8	52-150	76.4	45
1,1-Dichloroethane	42.1	J1	3.00	ug/L	50.0	<3.00	84.2	59-155	67.9	40
1,1-Dichloroethylene	41.6	J1	3.00	ug/L	50.0	<3.00	83.3	0-234	65.3	32
1,2,4-Trichlorobenzene	43.0	J1	5.00	ug/L	50.0	1.38	83.2	70-130	68.7	30
1,2-Dibromoethane (EDB, Ethylene dibromide)	41.6	J1	2.00	ug/L	50.0	<2.00	83.1	70-130	72.3	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	41.8	J1	3.00	ug/L	50.0	<3.00	83.5	18-190	66.9	57
1,2-Dichloroethane (Ethylene dichloride)	39.6	J1	3.00	ug/L	50.0	<3.00	79.2	49-155	69.8	49
1,2-Dichloropropane	42.7	J1	3.00	ug/L	50.0	<3.00	85.5	0-210	70.5	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	41.3	J1	2.00	ug/L	50.0	<2.00	82.5	59-156	66.6	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	41.3	J1	2.00	ug/L	50.0	<2.00	82.6	18-190	64.8	57
2-Butanone (Methyl ethyl ketone, MEK)	437	J1	22.0	ug/L	500	<22.0	87.3	70-130	71.4	30
2-Chloroethyl vinyl ether	48.8		9.00	ug/L	50.0	<9.00	97.7	0-305	25.0	71
Acrolein (Propenal)	188		17.0	ug/L	250	<17.0	75.0	40-160	8.68	60
Acrylonitrile	48.9	J1	5.00	ug/L	50.0	<5.00	97.8	40-160	63.7	60
Benzene	42.8	J1	2.00	ug/L	50.0	<2.00	85.7	37-151	69.5	61
Bromodichloromethane	45.1	J1	2.00	ug/L	50.0	<2.00	90.3	35-155	71.7	56
Bromoform	41.9	J1	2.00	ug/L	50.0	<2.00	83.9	45-169	77.2	42
Carbon tetrachloride	41.0	J1	1.00	ug/L	50.0	<1.00	82.1	70-140	69.5	41
Chlorobenzene	42.2	J1	2.00	ug/L	50.0	<2.00	84.4	37-160	65.7	53
Chlorodibromomethane	43.0	J1	2.00	ug/L	50.0	<2.00	86.0	53-149	83.2	50
Chloroethane (Ethyl chloride)	44.2		4.00	ug/L	50.0	<4.00	88.3	14-230	7.75	78
Chloroform	42.9	J1	2.00	ug/L	50.0	3.56	78.7	51-138	62.5	54
cis-1,3-Dichloropropene	43.7	J1	2.00	ug/L	50.0	<2.00	87.3	0-227	72.4	58
Ethylbenzene	41.7	J1	2.00	ug/L	50.0	<2.00	83.4	37-162	70.1	63
Methyl bromide (Bromomethane)	44.6		4.00	ug/L	50.0	<4.00	89.2	0-242	14.6	61
Methyl chloride (Chloromethane)	45.6		2.00	ug/L	50.0	<2.00	91.2	0-273	9.16	60
Methylene chloride (Dichloromethane)	41.8	J1	5.00	ug/L	50.0	<5.00	83.6	0-221	68.7	28
Tetrachloroethylene (Perchloroethylene)	36.4	J1	2.00	ug/L	50.0	<2.00	72.7	64-148	66.3	39
Toluene	45.3	J1	2.00	ug/L	50.0	3.30	84.0	47-150	65.5	41
Total Trihalomethanes (TTHMs)	173	J1	10.0	ug/L	200	3.56	84.7	70-130	73.4	30
trans-1,2-Dichloroethylene	42.2	J1	3.00	ug/L	50.0	<3.00	84.3	54-156	65.2	45
trans-1,3-Dichloropropylene	42.4		1.00	ug/L	50.0	<1.00	84.7	17-183	70.3	86
Trichloroethene (Trichloroethylene)	41.1	J1	2.00	ug/L	50.0	<2.00	82.1	70-157	65.1	48
Vinyl chloride (Chloroethene)	45.8		4.00	ug/L	50.0	<4.00	91.5	0-251	9.94	66
Surrogate: 4-Bromofluorobenzene-surr			*50.0*	*ug/L*	*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*48.9*	*ug/L*	*50.0*		*97.9*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*48.4*	*ug/L*	*50.0*		*96.7*	*70-130*		
Surrogate: Toluene-d8-surr			*49.4*	*ug/L*	*50.0*		*98.8*	*70-130*		

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Quality Control
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Semivolatile Organic Compounds by GCMS

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3499 - SW-3511										
MB NP (BHC3499-BLK1)				Prepared: 03/21/2024 Analyzed: 03/28/2024						
Nonylphenol	<333	U	333	ug/L						
Surrogate: n-NP-surr			*8.79*	*ug/L*	*7.97*		*110*	*60-140*		
BS NP (BHC3499-BS1)				Prepared: 03/21/2024 Analyzed: 03/28/2024						
Nonylphenol	43.0	U	333	ug/L	39.9		108	56-112		
Surrogate: n-NP-surr			*8.45*	*ug/L*	*7.98*		*106*	*60-140*		
BSD NP (BHC3499-BSD1)				Prepared: 03/21/2024 Analyzed: 03/28/2024						
Nonylphenol	41.5	U	333	ug/L	39.3		105	56-112	3.57	22
Surrogate: n-NP-surr			*8.45*	*ug/L*	*7.87*		*107*	*60-140*		
24C2933-02 MS (BHC3499-MS1)		**Source: 24C2933-02**		Prepared: 03/21/2024 Analyzed: 03/28/2024						
Nonylphenol	<333	J1, U	333	ug/L	39.4	<333		56-112		
Surrogate: n-NP-surr		*S*	*0.458*	*ug/L*	*7.87*		*5.82*	*60-140*		
24C2933-02 MSD (BHC3499-MSD1)		**Source: 24C2933-02**		Prepared: 03/21/2024 Analyzed: 03/28/2024						
Nonylphenol	<333	J1, U	333	ug/L	39.6	<333		56-112		22
Surrogate: n-NP-surr		*S*	*0.617*	*ug/L*	*7.93*		*7.78*	*60-140*		

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Quality Control
(Continued)

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2219 - SW-3511										
Blank (BHC2219-BLK1)				Prepared: 03/13/2024 Analyzed: 03/16/2024						
2,4-D	<0.700	U	0.700	ug/L						
Silvex (2,4,5-TP)	<0.300	U	0.300	ug/L						
LCS (BHC2219-BS1)				Prepared: 03/13/2024 Analyzed: 03/16/2024						
2,4-D	4.14		0.700	ug/L	5.15		80.3	70-130		
Silvex (2,4,5-TP)	4.25		0.300	ug/L	5.00		85.0	70-130		
Surrogate: DCAA-surr			*21.7*	*ug/L*	*25.0*		*86.8*	*70-130*		
LCS Dup (BHC2219-BSD1)				Prepared: 03/13/2024 Analyzed: 03/16/2024						
2,4-D	4.18		0.700	ug/L	5.15		81.1	70-130	1.02	30
Silvex (2,4,5-TP)	4.18		0.300	ug/L	5.00		83.6	70-130	1.69	30
Surrogate: DCAA-surr			*24.2*	*ug/L*	*25.0*		*96.7*	*70-130*		
Matrix Spike (BHC2219-MS1)		**Source: 24C1678-01**		Prepared: 03/13/2024 Analyzed: 03/16/2024						
2,4-D	16.1		0.944	ug/L	20.6	<0.944	78.0	70-130		
Silvex (2,4,5-TP)	16.2		0.952	ug/L	20.0	<0.952	81.2	70-130		
Surrogate: DCAA-surr			*92.5*	*ug/L*	*100*		*92.5*	*70-130*		
Matrix Spike Dup (BHC2219-MSD1)		**Source: 24C1678-01**		Prepared: 03/13/2024 Analyzed: 03/16/2024						
2,4-D	15.6		0.944	ug/L	20.6	<0.944	76.0	70-130	2.70	30
Silvex (2,4,5-TP)	15.7		0.952	ug/L	20.0	<0.952	78.6	70-130	3.30	30
Surrogate: DCAA-surr			*94.1*	*ug/L*	*100*		*94.1*	*70-130*		
Batch: BHC2474 - EPA 1657 SPE										
Blank (BHC2474-BLK1)				Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	<0.100	U	0.100	ug/L						
Chlorpyrifos	<0.0500	U	0.0500	ug/L						
Demeton	<0.200	U	0.200	ug/L						
Diazinon	<0.500	U	0.500	ug/L						
Malathion	<0.100	U	0.100	ug/L						
Parathion, ethyl	<0.100	U	0.100	ug/L						

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Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2474 - EPA 1657 SPE (Continued)										
LCS (BHC2474-BS1)				Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	0.256		0.100	ug/L	0.250		102	37-150		
Chlorpyrifos	0.200		0.0500	ug/L	0.250		80.0	48-150		
Demeton	0.183	J	0.200	ug/L	0.250		73.0	16-150		
Diazinon	0.256	J	0.500	ug/L	0.250		102	50-150		
Malathion	0.162		0.100	ug/L	0.250		64.9	50-150		
Parathion, ethyl	0.215		0.100	ug/L	0.250		86.2	50-150		
Surrogate: Tributyl Phosphate-surr		*S*	*0.259*	*ug/L*	*0.200*		*130*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.198*	*ug/L*	*0.200*		*99.1*	*40-120*		
LCS Dup (BHC2474-BSD1)				Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	0.165	J1	0.100	ug/L	0.249		66.3	37-150	43.0	40
Chlorpyrifos	0.167		0.0500	ug/L	0.249		67.1	48-150	17.9	40
Demeton	0.178	J	0.200	ug/L	0.249		71.6	16-150	2.32	40
Diazinon	0.222	J	0.500	ug/L	0.249		89.0	50-150	14.5	40
Malathion	0.142		0.100	ug/L	0.249		57.0	50-150	13.3	40
Parathion, ethyl	0.190		0.100	ug/L	0.249		76.3	50-150	12.5	40
Surrogate: Tributyl Phosphate-surr			*0.171*	*ug/L*	*0.199*		*86.0*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.153*	*ug/L*	*0.199*		*76.6*	*40-120*		
Matrix Spike (BHC2474-MS1)		**Source: 24C3502-02**		Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	0.0506	J1, J	0.103	ug/L	0.258	<0.103	19.6	25-150		
Chlorpyrifos	0.151		0.0516	ug/L	0.258	<0.0516	58.4	25-150		
Demeton	0.0157	J1, J	0.206	ug/L	0.258	<0.206	6.10	25-150		
Diazinon	0.245	J	0.516	ug/L	0.258	<0.516	95.2	25-150		
Malathion	0.186		0.103	ug/L	0.258	<0.103	72.2	25-150		
Parathion, ethyl	0.179		0.103	ug/L	0.258	<0.103	69.3	25-150		
Surrogate: Tributyl Phosphate-surr		*S*	*0.472*	*ug/L*	*0.206*		*229*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.117*	*ug/L*	*0.206*		*56.8*	*40-120*		

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Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2474 - EPA 1657 SPE (Continued)										
Matrix Spike Dup (BHC2474-MSD1)	**Source: 24C3502-02**		Prepared: 03/14/2024 Analyzed: 03/16/2024							
Azinphos-methyl (Guthion)	<0.108	J1, U	0.108	ug/L	0.269	<0.108		25-150	200	40
Chlorpyrifos	0.161		0.0539	ug/L	0.269	<0.0539	59.9	25-150	6.83	40
Demeton	0.0162	J1, J	0.216	ug/L	0.269	<0.216	6.01	25-150	2.80	40
Diazinon	0.238	J	0.539	ug/L	0.269	<0.539	88.4	25-150	3.09	40
Malathion	0.173		0.108	ug/L	0.269	<0.108	64.1	25-150	7.62	40
Parathion, ethyl	0.183		0.108	ug/L	0.269	<0.108	67.8	25-150	2.08	40
Surrogate: Tributyl Phosphate-surr		*S*	*0.455*	*ug/L*	*0.216*		*211*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.106*	*ug/L*	*0.216*		*49.2*	*40-120*		

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Quality Control
(Continued)

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1479 - EPA 1631										
Blank (BHC1479-BLK1)					Prepared: 03/08/2024 Analyzed: 03/12/2024					
Mercury	<0.00500	U	0.00500	ug/L						
Blank (BHC1479-BLK2)					Prepared: 03/08/2024 Analyzed: 03/12/2024					
Mercury	<0.00500	U	0.00500	ug/L						
Blank (BHC1479-BLK3)					Prepared: 03/08/2024 Analyzed: 03/12/2024					
Mercury	<0.00500	U	0.00500	ug/L						
Matrix Spike (BHC1479-MS1)		**Source: 24C1868-02**			Prepared: 03/08/2024 Analyzed: 03/12/2024					
Mercury	0.0407		0.00526	ug/L	0.0526	<0.00526	77.4	71-125		
Matrix Spike Dup (BHC1479-MSD1)		**Source: 24C1868-02**			Prepared: 03/08/2024 Analyzed: 03/12/2024					
Mercury	0.0421		0.00526	ug/L	0.0526	<0.00526	80.1	71-125	3.36	24
Batch: BHC1568 - EPA 200.8										
Blank (BHC1568-BLK1)					Prepared: 03/11/2024 Analyzed: 03/13/2024					
Aluminum	<6.25	U	6.25	ug/L						
Antimony	<5.00	U	5.00	ug/L						
Barium	<3.00	U	3.00	ug/L						
Cadmium	<1.00	U	1.00	ug/L						
Chromium	<3.00	U	3.00	ug/L						
Copper	<2.00	U	2.00	ug/L						
Nickel	<2.00	U	2.00	ug/L						
Silver	<0.500	U	0.500	ug/L						
Thallium	<0.500	U	0.500	ug/L						
Zinc	<5.00	U	5.00	ug/L						

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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1568 - EPA 200.8 (Continued)										
Blank (BHC1568-BLK2)					Prepared: 03/11/2024 Analyzed: 03/13/2024					
Lead	<0.500	U	0.500	ug/L						
Selenium	<5.00	U	5.00	ug/L						
Blank (BHC1568-BLK3)					Prepared: 03/11/2024 Analyzed: 03/22/2024					
Arsenic	<0.500	U	0.500	ug/L						
Blank (BHC1568-BLK4)					Prepared: 03/11/2024 Analyzed: 03/22/2024					
Beryllium	<0.500	U	0.500	ug/L						
LCS (BHC1568-BS1)					Prepared: 03/11/2024 Analyzed: 03/13/2024					
Aluminum	258		6.25	ug/L	250		103	85-115		
Antimony	104		1.00	ug/L	100		104	85-115		
Barium	307		3.00	ug/L	300		102	85-115		
Cadmium	102		1.00	ug/L	100		102	85-115		
Chromium	307		3.00	ug/L	300		102	85-115		
Copper	105		2.00	ug/L	100		105	85-115		
Nickel	102		2.00	ug/L	100		102	85-115		
Silver	53.4		0.500	ug/L	50.0		107	85-115		
Thallium	52.5		0.500	ug/L	50.0		105	85-115		
Zinc	208		4.00	ug/L	200		104	85-115		
LCS (BHC1568-BS2)					Prepared: 03/11/2024 Analyzed: 03/13/2024					
Lead	52.5		0.500	ug/L	50.0		105	85-115		
Selenium	199		5.00	ug/L	200		99.7	85-115		
LCS (BHC1568-BS3)					Prepared: 03/11/2024 Analyzed: 03/22/2024					
Arsenic	52.7		0.500	ug/L	50.0		105	85-115		

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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1568 - EPA 200.8 (Continued)										
LCS (BHC1568-BS4)					Prepared: 03/11/2024 Analyzed: 03/22/2024					
Beryllium	20.7		0.200	ug/L	20.0		103	85-115		
Duplicate (BHC1568-DUP1)			**Source: 24C2287-02**		Prepared: 03/11/2024 Analyzed: 03/13/2024					
Aluminum	28.6		6.25	ug/L		28.1			1.54	20
Antimony	0.424	U	1.00	ug/L		0.444			4.61	20
Barium	168		3.00	ug/L		164			2.73	20
Cadmium	0.0170	U	1.00	ug/L		0.0200			16.2	20
Chromium	<3.00	U	3.00	ug/L		<3.00				20
Copper	10.2		2.00	ug/L		10.2			0.460	20
Nickel	1.66	U	2.00	ug/L		1.64			1.58	20
Silver	0.0300	U	0.500	ug/L		0.0320			6.45	20
Thallium	<0.500	U	0.500	ug/L		<0.500				20
Zinc	27.2		4.00	ug/L		27.0			0.502	20
Duplicate (BHC1568-DUP2)			**Source: 24C2564-02**		Prepared: 03/11/2024 Analyzed: 03/13/2024					
Aluminum	7.43		6.25	ug/L		7.60			2.34	20
Antimony	0.549	U	1.00	ug/L		0.567			3.23	20
Barium	103		3.00	ug/L		108			3.93	20
Cadmium	<1.00	U	1.00	ug/L		<1.00				20
Chromium	<3.00	U	3.00	ug/L		<3.00				20
Copper	2.81		2.00	ug/L		3.07			8.97	20
Nickel	1.35	U	2.00	ug/L		1.55			14.0	20
Silver	0.0200	U	0.500	ug/L		0.0260			26.1	20
Thallium	<0.500	U	0.500	ug/L		<0.500				20
Zinc	42.4		4.00	ug/L		42.3			0.260	20
Duplicate (BHC1568-DUP3)			**Source: 24C2287-02**		Prepared: 03/11/2024 Analyzed: 03/13/2024					
Lead	0.111	U	0.500	ug/L		0.110			0.905	20
Selenium	0.538	U	5.00	ug/L		0.608			12.2	20

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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1568 - EPA 200.8 (Continued)										
Duplicate (BHC1568-DUP4)		**Source: 24C2564-02**		Prepared: 03/11/2024 Analyzed: 03/13/2024						
Lead	0.198	U	0.500	ug/L		0.197			0.506	20
Selenium	<5.00	U	5.00	ug/L		0.409			200	20
Duplicate (BHC1568-DUP5)		**Source: 24C2287-02**		Prepared: 03/11/2024 Analyzed: 03/22/2024						
Arsenic	2.40		0.500	ug/L		2.40			0.208	20
Duplicate (BHC1568-DUP6)		**Source: 24C2564-02**		Prepared: 03/11/2024 Analyzed: 03/22/2024						
Arsenic	1.85		0.500	ug/L		1.97			6.19	20
Duplicate (BHC1568-DUP8)		**Source: 24C2287-02**		Prepared: 03/11/2024 Analyzed: 03/22/2024						
Beryllium	<0.200	U	0.200	ug/L		<0.200				20
Duplicate (BHC1568-DUP9)		**Source: 24C2564-02**		Prepared: 03/11/2024 Analyzed: 03/22/2024						
Beryllium	<0.200	U	0.200	ug/L		<0.200				20
Matrix Spike (BHC1568-MS1)		**Source: 24C2287-02**		Prepared: 03/11/2024 Analyzed: 03/13/2024						
Aluminum	278		6.25	ug/L	250	28.1	100	75-125		
Antimony	102		1.00	ug/L	100	0.444	102	75-125		
Barium	468		3.00	ug/L	300	164	101	75-125		
Cadmium	99.9		1.00	ug/L	100	0.0200	99.9	75-125		
Chromium	294		3.00	ug/L	300	<3.00	97.9	75-125		
Copper	108		2.00	ug/L	100	10.2	97.7	75-125		
Nickel	98.6		2.00	ug/L	100	1.64	96.9	75-125		
Silver	51.4		0.500	ug/L	50.0	0.0320	103	75-125		
Thallium	50.2		0.500	ug/L	50.0	<0.500	100	75-125		
Zinc	222		4.00	ug/L	200	27.0	97.3	75-125		
Matrix Spike (BHC1568-MS2)		**Source: 24C2564-02**		Prepared: 03/11/2024 Analyzed: 03/13/2024						
Aluminum	268		6.25	ug/L	250	7.60	104	75-125		
Antimony	105		1.00	ug/L	100	0.567	105	75-125		
Barium	414		3.00	ug/L	300	108	102	75-125		
Cadmium	100		1.00	ug/L	100	<1.00	100	75-125		
Chromium	295		3.00	ug/L	300	<3.00	98.3	75-125		
Copper	100		2.00	ug/L	100	3.07	97.4	75-125		
Nickel	99.0		2.00	ug/L	100	1.55	97.4	75-125		
Silver	52.1		0.500	ug/L	50.0	0.0260	104	75-125		
Thallium	49.7		0.500	ug/L	50.0	<0.500	99.3	75-125		
Zinc	241		4.00	ug/L	200	42.3	99.4	75-125		

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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1568 - EPA 200.8 (Continued)										
Matrix Spike (BHC1568-MS3)		**Source: 24C2287-02**			Prepared: 03/11/2024 Analyzed: 03/13/2024					
Lead	50.4		0.500	ug/L	50.0	0.110	101	75-125		
Selenium	194		5.00	ug/L	200	0.608	96.9	75-125		
Matrix Spike (BHC1568-MS4)		**Source: 24C2564-02**			Prepared: 03/11/2024 Analyzed: 03/13/2024					
Lead	53.0		0.500	ug/L	50.0	0.197	106	75-125		
Selenium	198		5.00	ug/L	200	0.409	98.6	75-125		
Matrix Spike (BHC1568-MS5)		**Source: 24C2287-02**			Prepared: 03/11/2024 Analyzed: 03/22/2024					
Arsenic	56.6		0.500	ug/L	50.0	2.40	108	75-125		
Matrix Spike (BHC1568-MS6)		**Source: 24C2564-02**			Prepared: 03/11/2024 Analyzed: 03/22/2024					
Arsenic	57.7		0.500	ug/L	50.0	1.97	111	75-125		
Matrix Spike (BHC1568-MS8)		**Source: 24C2287-02**			Prepared: 03/11/2024 Analyzed: 03/22/2024					
Beryllium	21.6		0.200	ug/L	20.0	<0.200	108	75-125		
Matrix Spike (BHC1568-MS9)		**Source: 24C2564-02**			Prepared: 03/11/2024 Analyzed: 03/22/2024					
Beryllium	20.5		0.200	ug/L	20.0	<0.200	102	75-125		

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Quality Control
(Continued)

Metals, Dissolved

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC4631 - Cr VI										
Matrix Spike (BHC4631-MS1)		**Source: 24C5240-01**			Prepared & Analyzed: 03/28/2024					
Chromium (VI)	236		3.00	ug/L	250	7.34	91.6	70-130		
Matrix Spike Dup (BHC4631-MSD1)		**Source: 24C5240-01**			Prepared & Analyzed: 03/28/2024					
Chromium (VI)	305	J1	3.00	ug/L	250	7.34	119	70-130	25.2	20

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Email: lab@nwdls.com
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27316 Spectrum Way
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Reported:
04/25/2024 08:59

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1266 - TDS										
Blank (BHC1266-BLK1)				Prepared: 03/08/2024 Analyzed: 03/11/2024						
Residue-filterable (TDS)	<10.0	U	10.0	mg/L						
LCS (BHC1266-BS1)				Prepared: 03/08/2024 Analyzed: 03/11/2024						
Residue-filterable (TDS)	149		10.0	mg/L	150		99.3	90-110		
Duplicate (BHC1266-DUP1)		**Source: 24C0416-02**		Prepared: 03/08/2024 Analyzed: 03/11/2024						
Residue-filterable (TDS)	2110		10.0	mg/L		2150			1.69	10
Duplicate (BHC1266-DUP2)		**Source: 24C2287-02**		Prepared: 03/08/2024 Analyzed: 03/11/2024						
Residue-filterable (TDS)	402		10.0	mg/L		422			4.85	10
Batch: BHC1286 - Alkalinity										
Blank (BHC1286-BLK1)				Prepared & Analyzed: 03/08/2024						
Conductivity	<2.00	U	2.00	umhos/cm @ 25 °C						
LCS (BHC1286-BS1)				Prepared & Analyzed: 03/08/2024						
Conductivity	1410			umhos/cm @ 25 °C	1410		99.7	90-110		
QSC (BHC1286-BS2)				Prepared & Analyzed: 03/08/2024						
Conductivity	517			umhos/cm @ 25 °C	500		103	90-110		
LCS (BHC1286-BS4)				Prepared & Analyzed: 03/08/2024						
Alkalinity as CaCO3	99.9			mg/L	100		99.9	90-110		
Duplicate (BHC1286-DUP1)		**Source: 24C2154-01**		Prepared & Analyzed: 03/08/2024						
Alkalinity as CaCO3	140		10.0	mg/L		143			2.28	15
Conductivity	835		2.00	umhos/cm @ 25 °C		831			0.480	15

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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1286 - Alkalinity (Continued)										
Duplicate (BHC1286-DUP2)		**Source: 24C2140-01**			Prepared & Analyzed: 03/08/2024					
Conductivity	580		2.00	umhos/cm @ 25 °C		592			2.05	15
Alkalinity as CaCO3	183		10.0	mg/L		183			0.311	15
Batch: BHC1305 - CBOD-5210										
LCS (BHC1305-BS1)					Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	169			mg/L	198		85.6	85-115		
Duplicate (BHC1305-DUP1)		**Source: 24C2253-02**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		3.54			200	40
Duplicate (BHC1305-DUP2)		**Source: 24C2216-01**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	4.39		2.40	mg/L		4.23			3.62	40
Duplicate (BHC1305-DUP3)		**Source: 24C2234-02**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		3.13			200	40
Duplicate (BHC1305-DUP4)		**Source: 24C2180-02**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	2.92		2.40	mg/L		3.54			19.1	40
Duplicate (BHC1305-DUP5)		**Source: 24C2150-02**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	3.48		2.40	mg/L		2.45			34.9	40
Duplicate (BHC1305-DUP6)		**Source: 24C2246-02**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	<2.40	U	2.40	mg/L		3.10			200	40
Duplicate (BHC1305-DUP7)		**Source: 24C0447-02**			Prepared: 03/08/2024 Analyzed: 03/13/2024					
Carbonaceous BOD (CBOD)	2.44		2.40	mg/L		<2.40			200	40

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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1305 - CBOD-5210 (Continued)										
Duplicate (BHC1305-DUP8)		**Source: 24C2106-02**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Carbonaceous BOD (CBOD)	4.70		2.40	mg/L		4.64			1.41	40
Duplicate (BHC1305-DUP9)		**Source: 24C2115-04**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Carbonaceous BOD (CBOD)	3.93	J1	2.40	mg/L		2.53			43.3	40
Duplicate (BHC1305-DUPA)		**Source: 24C2145-04**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Carbonaceous BOD (CBOD)	197		50.0	mg/L		172			13.6	20
Duplicate (BHC1305-DUPB)		**Source: 24C2473-08**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Carbonaceous BOD (CBOD)	147		50.0	mg/L		144			1.78	20
Batch: BHC1340 - Phosphorus EPA 365.1										
LCS (BHC1340-BS1)				Prepared: 03/08/2024 Analyzed: 03/13/2024						
Total Phosphorus	0.244		0.0100	mg/L	0.250		97.5	90-110		
Matrix Spike (BHC1340-MS1)		**Source: 24C2019-03**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Total Phosphorus	22.9		0.500	mg/L	12.5	9.13	110	80-120		
Matrix Spike (BHC1340-MS2)		**Source: 24C2180-05**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Total Phosphorus	20.1		0.500	mg/L	12.5	7.52	100	80-120		
Matrix Spike Dup (BHC1340-MSD1)		**Source: 24C2019-03**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Total Phosphorus	21.6		0.500	mg/L	12.5	9.13	99.9	80-120	5.73	20
Matrix Spike Dup (BHC1340-MSD2)		**Source: 24C2180-05**		Prepared: 03/08/2024 Analyzed: 03/13/2024						
Total Phosphorus	20.1		0.500	mg/L	12.5	7.52	101	80-120	0.348	20

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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1389 - EPA 300.0										
Duplicate (BHC1389-DUP1)		**Source: 24C2287-02**			Prepared & Analyzed: 03/08/2024					
Fluoride	0.312		0.250	mg/L		0.302			3.26	15
Nitrate as N	4330		100	ug/L		4280			1.11	15
Chloride	73.6		10.0	mg/L		71.6			2.67	15
Sulfate	28.0		1.00	mg/L		28.0			0.0643	15
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Duplicate (BHC1389-DUP2)		**Source: 24C2021-02**			Prepared & Analyzed: 03/09/2024					
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Chloride	127		10.0	mg/L		119			6.71	15
Fluoride	0.241	U	0.250	mg/L		0.238			1.25	15
Sulfate	54.5		1.00	mg/L		54.5			0.00183	15
Nitrate as N	4550		100	ug/L		4550			0.0220	15
MRL Check (BHC1389-MRL1)					Prepared & Analyzed: 03/08/2024					
Fluoride	0.349		0.250	mg/L	0.250		140	50-150		
Sulfate	1.14		1.00	mg/L	1.00		114	50-150		
Nitrite as N	56.0		50.0	ug/L	50.0		112	50-150		
Chloride	1.09		1.00	mg/L	1.00		109	50-150		
Nitrate as N	110		100	ug/L	100		110	50-150		
Matrix Spike (BHC1389-MS1)		**Source: 24C2287-02**			Prepared & Analyzed: 03/08/2024					
Sulfate	49.9		1.11	mg/L	22.2	28.0	98.6	80-120		
Nitrite as N	1920	J1	55.6	ug/L	1110	<55.6	173	80-120		
Fluoride	5.61		0.278	mg/L	5.56	0.302	95.6	80-120		
Nitrate as N	6480		111	ug/L	2220	4280	98.8	80-120		
Chloride	86.6	J1	11.1	mg/L	11.1	71.6	135	80-120		
Matrix Spike (BHC1389-MS2)		**Source: 24C2021-02**			Prepared & Analyzed: 03/09/2024					
Fluoride	5.80		0.278	mg/L	5.56	0.238	100	80-120		
Chloride	133	J1	11.1	mg/L	11.1	119	129	80-120		
Nitrate as N	6700		111	ug/L	2220	4550	97.1	80-120		
Nitrite as N	2300	J1	55.6	ug/L	1110	<55.6	207	80-120		
Sulfate	78.2		1.11	mg/L	22.2	54.5	106	80-120		

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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1436 - NH3-N SEAL-350.1										
Matrix Spike (BHC1436-MS1)		**Source: 24C2198-02**			Prepared & Analyzed: 03/11/2024					
Ammonia as N	0.513		0.0500	mg/L	0.400	0.0963	104	90-110		
Matrix Spike (BHC1436-MS2)		**Source: 24C2235-01**			Prepared & Analyzed: 03/11/2024					
Ammonia as N	0.582		0.0500	mg/L	0.400	0.168	104	90-110		
Matrix Spike Dup (BHC1436-MSD1)		**Source: 24C2198-02**			Prepared & Analyzed: 03/11/2024					
Ammonia as N	0.548	J1	0.0500	mg/L	0.400	0.0963	113	90-110	6.54	20
Matrix Spike Dup (BHC1436-MSD2)		**Source: 24C2235-01**			Prepared & Analyzed: 03/11/2024					
Ammonia as N	0.565		0.0500	mg/L	0.400	0.168	99.3	90-110	2.98	20
Batch: BHC1463 - TSS										
Blank (BHC1463-BLK1)					Prepared: 03/08/2024 Analyzed: 03/11/2024					
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L						
LCS (BHC1463-BS1)					Prepared: 03/08/2024 Analyzed: 03/11/2024					
Residue-nonfilterable (TSS)	98.7		1.00	mg/L	100		98.7	85-115		
Duplicate (BHC1463-DUP1)		**Source: 24C2209-01**			Prepared: 03/08/2024 Analyzed: 03/11/2024					
Residue-nonfilterable (TSS)	1.26	J1	1.00	mg/L		<1.00			200	10
Duplicate (BHC1463-DUP2)		**Source: 24C2221-01**			Prepared: 03/08/2024 Analyzed: 03/11/2024					
Residue-nonfilterable (TSS)	1.26	J1	1.00	mg/L		1.47			15.4	10
Batch: BHC1541 - EPA 300.0										
Duplicate (BHC1541-DUP1)		**Source: 24C2281-02**			Prepared & Analyzed: 03/09/2024					
Sulfate	41.2		10.0	mg/L		41.6			0.797	15

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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1541 - EPA 300.0 (Continued)										
Duplicate (BHC1541-DUP2)		**Source: 24C2198-02**			Prepared & Analyzed: 03/10/2024					
Sulfate	64.4		10.0	mg/L		64.5			0.155	15
MRL Check (BHC1541-MRL1)					Prepared & Analyzed: 03/09/2024					
Sulfate	1.14		1.00	mg/L	1.00		114	50-150		
Matrix Spike (BHC1541-MS1)		**Source: 24C2281-02**			Prepared & Analyzed: 03/09/2024					
Sulfate	61.4		11.1	mg/L	22.2	41.6	89.1	80-120		
Matrix Spike (BHC1541-MS2)		**Source: 24C2198-02**			Prepared & Analyzed: 03/10/2024					
Sulfate	83.8		11.1	mg/L	22.2	64.5	86.8	80-120		
Batch: BHC1581 - EPA 1664										
Blank (BHC1581-BLK1)					Prepared & Analyzed: 03/11/2024					
n-Hexane Extractable Material (O&G)	<5.00	U	5.00	mg/L						
LCS (BHC1581-BS1)					Prepared & Analyzed: 03/11/2024					
n-Hexane Extractable Material (O&G)	45.0		5.00	mg/L	40.0		113	77.5-114.5		
LCS Dup (BHC1581-BSD1)					Prepared & Analyzed: 03/11/2024					
n-Hexane Extractable Material (O&G)	45.3		5.00	mg/L	40.0		113	77.5-114.5	0.602	20
Matrix Spike (BHC1581-MS1)		**Source: 24C2124-01**			Prepared & Analyzed: 03/11/2024					
n-Hexane Extractable Material (O&G)	<5.00	J1, U	5.00	mg/L	40.0	<5.00		77.5-114.5		
Batch: BHC1897 - TKN T										
Blank (BHC1897-BLK1)					Prepared: 03/12/2024 Analyzed: 03/13/2024					
Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L						

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Quality Control
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General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1897 - TKN T (Continued)										
LCS (BHC1897-BS1)					Prepared: 03/12/2024 Analyzed: 03/13/2024					
Total Kjeldahl Nitrogen - (TKN)	2.02		1.00	mg/L	1.97		102	85-115		
Duplicate (BHC1897-DUP1)		**Source: 24C2095-02**			Prepared: 03/12/2024 Analyzed: 03/13/2024					
Total Kjeldahl Nitrogen - (TKN)	41.1		1.00	mg/L		49.7			19.0	20
Matrix Spike (BHC1897-MS1)		**Source: 24C2095-02**			Prepared: 03/12/2024 Analyzed: 03/13/2024					
Total Kjeldahl Nitrogen - (TKN)	54.1		1.00	mg/L	4.00	49.7	109	85-115		
Batch: BHC2885 - CN-4500										
Blank (BHC2885-BLK1)					Prepared & Analyzed: 03/18/2024					
Total Cyanide	<10.0	U	10.0	ug/L						
LCS (BHC2885-BS1)					Prepared & Analyzed: 03/18/2024					
Total Cyanide	285	J1	10.0	ug/L	200		142	90-110		
QCS (BHC2885-BS2)					Prepared & Analyzed: 03/18/2024					
Total Cyanide	284	J1	10.0	ug/L	200		142	90-110		
MRL Check (BHC2885-MRL1)					Prepared & Analyzed: 03/18/2024					
Total Cyanide	17.9	J1	10.0	ug/L	10.0		179	50-150		
Matrix Spike (BHC2885-MS1)		**Source: 24C1862-01**			Prepared & Analyzed: 03/18/2024					
Total Cyanide	281	J1	10.2	ug/L	204	<10.2	138	80-120		
Matrix Spike Dup (BHC2885-MSD1)		**Source: 24C1862-01**			Prepared & Analyzed: 03/18/2024					
Total Cyanide	245		10.2	ug/L	204	<10.2	120	80-120	13.6	20

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Quality Control
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General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3146 - CN-4500										
Blank (BHC3146-BLK1)					Prepared & Analyzed: 03/20/2024					
Total Cyanide	<10.0	U	10.0	ug/L						
LCS (BHC3146-BS1)					Prepared & Analyzed: 03/20/2024					
Total Cyanide	196		10.0	ug/L	200		98.0	90-110		
QCS (BHC3146-BS2)					Prepared & Analyzed: 03/20/2024					
Total Cyanide	199		10.0	ug/L	200		99.3	90-110		
MRL Check (BHC3146-MRL1)					Prepared & Analyzed: 03/20/2024					
Total Cyanide	19.2	J1	10.0	ug/L	10.0		192	50-150		
Matrix Spike (BHC3146-MS1)		**Source: 24C1862-01RE1**			Prepared & Analyzed: 03/20/2024					
Total Cyanide	179		10.2	ug/L	204	<10.2	87.6	80-120		
Matrix Spike Dup (BHC3146-MSD1)		**Source: 24C1862-01RE1**			Prepared & Analyzed: 03/20/2024					
Total Cyanide	169		10.2	ug/L	204	<10.2	82.9	80-120	5.55	20
Batch: BHC3525 - CN-4500										
Blank (BHC3525-BLK1)					Prepared & Analyzed: 03/21/2024					
Total Cyanide	<10.0	U	10.0	ug/L						
LCS (BHC3525-BS1)					Prepared & Analyzed: 03/21/2024					
Total Cyanide	206		10.0	ug/L	200		103	90-110		
QCS (BHC3525-BS2)					Prepared & Analyzed: 03/21/2024					
Total Cyanide	204		10.0	ug/L	200		102	90-110		

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Quality Control
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General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3525 - CN-4500 (Continued)										
MRL Check (BHC3525-MRL1)					Prepared & Analyzed: 03/21/2024					
Total Cyanide	12.8		10.0	ug/L	10.0		128	50-150		
Matrix Spike (BHC3525-MS1)		**Source: 24C1862-01RE2**			Prepared & Analyzed: 03/21/2024					
Total Cyanide	184		10.0	ug/L	200	<10.0	92.2	80-120		
Matrix Spike Dup (BHC3525-MSD1)		**Source: 24C1862-01RE2**			Prepared & Analyzed: 03/21/2024					
Total Cyanide	189		10.0	ug/L	200	<10.0	94.6	80-120	2.60	20

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Quality Control
(Continued)

Microbiology

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1212 - TC EC Quantitray										
Blank (BHC1212-BLK1)					Prepared: 03/07/2024 Analyzed: 03/08/2024					
Escherichia coli (E. coli)	<1.00	U	1.00	MPN/100 mL						
Duplicate (BHC1212-DUP1)			**Source: 24C2289-01**		Prepared: 03/07/2024 Analyzed: 03/08/2024					
Escherichia coli (E. coli)	<1.00	U	1.00	MPN/100 mL		<1.00				200
Duplicate (BHC1212-DUP2)			**Source: 24C2294-01**		Prepared: 03/07/2024 Analyzed: 03/08/2024					
Escherichia coli (E. coli)	<1.00	U	1.00	MPN/100 mL		<1.00				200

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Sample Condition Checklist

Work Order: 24C1868

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

Work Order: 24C1869

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

Work Order: 24C2287

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

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Work Order: 24C5240

Check Points

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

Work Order: 24D4502

Check Points

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

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00086

Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/25/2024 08:59

Term and Qualifier Definitions

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

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

CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

24C1868

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Outfall 001 3 Part Grab Comp 1	Schedule Comments:
Municipal Operations and Consulting Accounts Payable 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: DAY OF GRAB 1 - TAKE GLASS RECEPTACLE & PLACE IN SAMPLER COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C1868-01	18 Mohm DI		3/6/2024 1040	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	
24C1868-02	Outfall 001 3 Part Grab		3/6/2024	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 BrCl Composite VOA 4°C	

Field Remarks:

Lab Preservation: H2SO4 HNO3 NaOH Other: (Circle and Write ID Below)

Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name: Fernando C Alvarado	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation: NWDLS	Relinquished To Lab By: (Signature)	Date/Time: 3-6-24/1305	Received for Laboratory By: (Signature) KDH	Date/Time: 3-6-24/1305

Custody Seal: Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: °C

Container Intact: Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID:

North West

wke_NWDLS_COC_LS Revision 4.1 Effective 2/17/2022

CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

24C1869

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Outfall 001 3 Part Grab Comp 2	Schedule Comments:
Municipal Operations and Consulting Accounts Payable 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED 13050 Stonefield Dr 77014 Gate Combo 2006	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C1869-01	18 Mohm DI		3/6/2024 1420	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	
24C1869-02	Outfall 001 3 Part Grab		3/6/2024	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 BrCl Composite VOA 4°C	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other:

Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name: Fernando C Alvarez	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation: NWDLS	Relinquished to Lab By: (Signature)	Date/Time: 3-6-24/1805	Received for Laboratory By: (Signature) KOH	Date/Time: 3-6-24/1805

Custody Seal: Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: °C

Container Intact: Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID:

North West

CHAIN OF CUSTODY RECORD

NWDLS
North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ T104704238-23-39

24C2287

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Large Permit Renewal	**Schedule Comments**
Municipal Operations and Consulting Accounts Payable 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: DO reading must be recorded before 9am If CL2 not <.1 Call Office Mark out Duplicated Outfall samples on the regular chain 13050 Stonefield Dr 77014 Gate Combo 2006	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation		Field Results	
24C2287-01	Outfall 001		3/7/2024 835	AQ Grab	A HDPE 250mL NaOH B Glass Wide 1L w/ Teflon-lined Lid C HDPE S250mL Na2S2O3	TC EC-9223 O&G-1664 CN AMEN-4500 CN T-4500	Na2S2O3 <10°C HCl 4°C NaOH 4°C NaOH 4°C	DO Field Flow MGD Field pH Field Total Chlorine Residual WW Field	8.16 1.174 7.27 2.6

CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

24C2287

(Continued)

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Large Permit Renewal	**Schedule Comments**
Municipal Operations and Consulting Accounts Payable 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: DO reading must be recorded before 9am If CL2 not <.1 Call Office Mark out Duplicated Outfall samples on the regular chain 13050 Stonefield Dr 77014 Gate Combo 2006	

24C2287-03	Outfall 001 3 Part Grab		3/7/2024 835	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 Composite VOA	BrCl 4°C	
24C2287-04	Outfall 001 3 Part Grab C		3/7/2024	AQ Grab 3-Part Cor		Sub_VOA-624	4°C	
24C2287-05	18 Mohm DI		3/7/2024	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631	BrCl	

Field Remarks:		**Lab Preservation:** (Circle and Write ID Below) H2SO4 HNO3 NaOH Other:		
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name: Francisco Gutierrez	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation: NWDLS	Relinquished To Lab By: (Signature)	Date/Time 3-7-24 / 1435	Received for Laboratory By: (Signature) VMC	Date/Time 3.7.24 1435

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID:

North West

CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

24C2287

(Continued)

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Large Permit Renewal	Schedule Comments:
Municipal Operations and Consulting Accounts Payable 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: DO reading must be recorded before 9am If CL2 not <.1 Call Office Mark out Duplicated Outfall samples on the regular chain 13050 Stonefield Dr 77014 Gate Combo 2006	

24C2287-02	Outfall 001 Sampler	3-6-24/0500	3/7/2024/0500	AQ 24HR Comp	A HDPE 250mL B HDPE 1L C HDPE 250mL D PreCleaned HDPE 250mL HNO3 E HDPE 250 Cr6+Buf after filtration F Glass VOA 60mL G Glass VOA 60mL H Glass VOA 60mL I HDPE 250mL J HDPE 250mL H2SO4 K HDPE 250mL H2SO4 L Amber Glass 250mL w/ Teflon-lined Lid M Amber Glass 250mL w/ Teflon-lined Lid N Amber Glass 250mL w/ Teflon-lined Lid O Amber Glass 250mL w/ Teflon-lined Lid P Amber Glass 1L w/ Teflon-lined Lid Q Amber Glass 1L w/ Teflon-lined Lid R Amber Glass 1L w/ Teflon-lined Lid S Amber Glass 1L w/ Teflon-lined Lid T Amber Glass 250mL w/ Teflon-lined Lid U Amber Glass 250mL w/ Teflon-lined Lid V Amber Glass 1L w/ Teflon-lined Lid W Amber Glass 1L w/ Teflon-lined Lid X Glass 250mL Y Glass 250mL H2SO4 Z HDPE 1L	Aluminum ICPMS 200.8 HNO3 Antimony ICPMS 200.8 HNO3 Arsenic ICPMS 200.8 HNO3 Barium ICPMS 200.8 HNO3 Beryllium ICPMS 200.8 HNO3 Cadmium ICPMS 200.8 HNO3 Chromium ICPMS 200.8 HNO3 Copper ICPMS 200.8 HNO3 Lead ICPMS 200.8 HNO3 LPR Metals [Group Analysis] Nickel ICPMS 200.8 HNO3 Selenium ICPMS 200.8 HNO3 Silver ICPMS 200.8 HNO3 Thallium ICPMS 200.8 HNO3 Zinc ICPMS 200.8 HNO3 HERB-6640 4°C Nonylphenol-D7065 4°C OCP-608 4°C OPP-1657 4°C PCB-608 4°C Sub_CBURP-632 4°C Alkalinity-2320 4°C CBOD-5210 4°C Chloride IC 300.0 4°C Conductivity-2510 4°C Cr III ICPMS [Group Analysis] Cr VI-D 3500 Cr6+Buf 4°C Fluoride IC 300.0 4°C LPR Anions [Group Analysis] NH3-N SEAL-350.1 H2SO4 4°C Nitrate as N IC 300.0 4°C Nitrite as N IC 300.0 4°C Sulfate IC 300.0 4°C TDS-2540 4°C TKN T-4500 C H2SO4 4°C Total Phosphorus-365.1- H2SO4 4°C TSS-2540 4°C	

CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ TX-C24-00086

24C5240

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Permit Renewal - Recollect	**Schedule Comments:**
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: 13050 Stonefield Dr Houston 77014 Gate Combo 2006	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C5240-01	Outfall 001 Sampler	3-25-24/0500	3/26/2024/0500	AQ 24HR Comp	A HDPE 250 Cr6+Buf after filtration	Cr VI-D 3500 Cr6+Buf 4°C	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other:

Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name: Fernando Olivares	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation: MUD17	Relinquished To Lab By: (Signature)	Date/Time 3-26-24/1215	Received for Laboratory By: (Signature) VMC	Date/Time 3.26.24 1215

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID:

North West

CHAIN OF CUSTODY RECORD

NWDLS
North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ TX-C24-00086

24D4502

Lab PM : Deena Higginbotham	**Project Name** : HC MUD 200 - Permit Renewal - Recollect	**Schedule Comments:**
Municipal Operations and Consulting John Taylor 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	**Project Comments**: 13050 Stonefield Dr Houston 77014 Gate Combo 2006	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24D4502-01	Outfall 001 Sampler	4-17-24 0600	4/18/2024 0600 1220	AQ 24HR Comp	A Amber Glass 1L w/ Teflon-lined Lid B Amber Glass 1L w/ Teflon-lined Lid	Sub_SVOA-625.1 4°C	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other:

Sampler (Signature) HWR	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name Heath Reinke	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation NWDLS	Relinquished To Lab By: (Signature) HWR	Date/Time 1340 4-18-24	Received for Laboratory By: (Signature) KMC	Date/Time 1340 4.18.24

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID:

North West

Laboratory Analysis Report

Total Number of Pages: 9

Job ID : 24031227

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

Client Project Name :
24C2287

Report To :

Client Name: NWDLS
Attn: Deena Higginbotham
Client Address: 130 S Trade Center Pkwy
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 24C2287
Sample Collected By:
Date Collected: 03/07/24

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

Client Sample ID	Matrix	A&B Sample ID
24C2287-02	Waste Water	24031227.01

Released By: Senthilkumar Sevukan
Title: Vice President Operations
Date: 03/20/2024

This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

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

ab-q210-0321

Date Received : 03/13/2024 09:58

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 24031227

Date: 3/20/2024

General Term Definition

Back-Wt	Back Weight	MQL	Unadjusted Minimum Quantitation Limit
BRL	Below Reporting Limit	Post-Wt	Post Weight
cfu	colony-forming units	ppm	parts per million
Conc.	Concentration	Pre-Wt	Previous Weight
D.F.	Dilution Factor	Q	Qualifier
Front-Wt	Front Weight	RegLimit	Regulatory Limit
J	Estimation. Below calibration range but above MDL	RLU	Relative Light Unit
LCS	Laboratory Check Standard	RPD	Relative Percent Difference
LCSD	Laboratory Check Standard Duplicate	RptLimit	Reporting Limit
LOD	Limit of detection adjusted for %M + DF	SDL	Sample Detection Limit
LOQ	Limit of Quantitation adjusted for %M + DF	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit

Qualifier Definition

S6	Surrogate recovery is outside control limits due to matrix effects.
U	Undetected at SDL (Sample Detection Limit).

LABORATORY TEST RESULTS

Job ID : 24031227

Date 3/20/2024

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 24C2287

Client Sample ID: 24C2287-02
Date Collected: 03/07/24
Time Collected: 05:00
Other Information:

Job Sample ID: 24031227.01
Sample Matrix Waste Water
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 608.3	Polychlorinated Biphenyls									
	Aroclor 1016	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Aroclor 1221	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Aroclor 1232	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Aroclor 1242	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Aroclor 1248	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Aroclor 1254	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Aroclor 1260	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Total PCBs	<0.03	ug/L	1.00	0.03	0.0500		U	03/15/24 08:31	MQ
	Decachlorobiphenyl(surr)	39	%	1.00		35-129			03/15/24 08:31	MQ
	Tetrachloro-m-xylene(surr)	66.5	%	1.00		27-127			03/15/24 08:31	MQ
EPA 608.3	Organochlorine Pesticides									
	Alpha-chlordane	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Dicofol[2]	<0.050	ug/L	1.00	0.050	0.050		U	03/15/24 15:43	MQ
	Gamma-chlordane	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	4,4-DDD	<0.002	ug/L	1.00	0.002	0.010		U	03/15/24 15:43	MQ
	4,4-DDE	<0.009	ug/L	1.00	0.009	0.010		U	03/15/24 15:43	MQ
	4,4-DDT	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	a-BHC	<0.003	ug/L	1.00	0.003	0.010		U	03/15/24 15:43	MQ
	Aldrin	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	b-BHC	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Chlordane	<0.100	ug/L	1.00	0.100	0.100		U	03/15/24 15:43	MQ
	d-BHC	<0.006	ug/L	1.00	0.006	0.010		U	03/15/24 15:43	MQ
	Dieldrin	<0.005	ug/L	1.00	0.005	0.010		U	03/15/24 15:43	MQ
	Endosulfan I	<0.007	ug/L	1.00	0.007	0.010		U	03/15/24 15:43	MQ
	Endosulfan II	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Endosulfan sulfate	<0.005	ug/L	1.00	0.005	0.010		U	03/15/24 15:43	MQ
	Endrin	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Endrin aldehyde	<0.003	ug/L	1.00	0.003	0.010		U	03/15/24 15:43	MQ
	g-BHC	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Heptachlor	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Heptachlor epoxide	<0.004	ug/L	1.00	0.004	0.010		U	03/15/24 15:43	MQ
	Methoxychlor	<0.003	ug/L	1.00	0.003	0.010		U	03/15/24 15:43	MQ
	Mirex[2]	<0.010	ug/L	1.00	0.010	0.010		U	03/15/24 15:43	MQ
	Toxaphene	<0.100	ug/L	1.00	0.100	0.100		U	03/15/24 15:43	MQ
	Decachlorobiphenyl(surr)	22.3	%	1.00		34-120		S6	03/15/24 15:43	MQ

LABORATORY TEST RESULTS

Job ID : 24031227

Date 3/20/2024

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 24C2287

Client Sample ID: 24C2287-02
Date Collected: 03/07/24
Time Collected: 05:00
Other Information:

Job Sample ID: 24031227.01
Sample Matrix Waste Water
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 608.3	Organochlorine Pesticides									
	Tetrachloro-m-xylene(surr)	55.3	%	1.00		24-127			03/15/24 15:43	MQ

ab-q212-0321

[2]-Parameter not available for accreditation.

QUALITY CONTROL CERTIFICATE

Job ID : 24031227 **Date :** 3/20/2024

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

QC Batch ID : Qb240315122 **Created Date :** 03/14/24 **Created By :** mqiao

Samples in This QC Batch : 24031227.01

Extraction : PB24031469 **Prep Method :** EPA 608.3 **Prep Date :** 03/13/24 13:30 **Prep By :** Msoria

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Aroclor 1016	12674-11-2	< MDL	ug/L	1.00	0.05	0.025		
Aroclor 1221	11104-28-2	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1232	11141-16-5	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1242	53469-21-9	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1248	12672-29-6	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1254	11097-69-1	< MDL	ug/L	1.00	0.05	0.026		
Aroclor 1260	11096-82-5	< MDL	ug/L	1.00	0.05	0.026		
Total PCBs		< MDL	ug/L	1.00	0.05	0.026		
Decachlorobiphenyl(surr)	2051-24-3	88.5	%	1.00				
Tetrachloro-m-xylene(surr)	877-09-8	75	%	1.00				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Aroclor 1016	2	1.64	81.9	2	1.65	82.6	0.7	18	53.7-136	
Aroclor 1260	2	1.87	93.4	2	1.86	93	0.4	18	57.9-146	
Total PCBs	4	3.50	87.6	4	3.51	87.8	0.1	18	51.7-138	

QUALITY CONTROL CERTIFICATE

Job ID : 24031227 **Date :** 3/20/2024

Analysis : Organochlorine Pesticides **Method :** EPA 608.3 **Reporting Units :** ug/L

QC Batch ID : Qb24031855 **Created Date :** 03/15/24 **Created By :** mqiao

Samples in This QC Batch : 24031227.01

Extraction : PB24031421 **Prep Method :** EPA 608.3 **Prep Date :** 03/13/24 17:00 **Prep By :** Msoria

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Alpha-chlordane	5103-71-9	< MDL	ug/L	1.00	0.01	0.004	
Dicofol	115-32-2	< MDL	ug/L	1.00	0.05	0.05	
Gamma-chlordane	5103-74-2	< MDL	ug/L	1.00	0.01	0.004	
4,4-DDD	72-54-8	< MDL	ug/L	1.00	0.01	0.002	
4,4-DDE	72-55-9	< MDL	ug/L	1.00	0.01	0.009	
4,4-DDT	50-29-3	< MDL	ug/L	1.00	0.01	0.004	
a-BHC	319-84-6	< MDL	ug/L	1.00	0.01	0.003	
Aldrin	309-00-2	< MDL	ug/L	1.00	0.01	0.004	
b-BHC	319-85-7	< MDL	ug/L	1.00	0.01	0.004	
Chlordane	57-74-9	< MDL	ug/L	1.00	0.1	0.1	
d-BHC	319-86-8	< MDL	ug/L	1.00	0.01	0.006	
Dieldrin	60-57-1	< MDL	ug/L	1.00	0.01	0.005	
Endosulfan I	959-98-8	< MDL	ug/L	1.00	0.01	0.007	
Endosulfan II	33213-65-9	< MDL	ug/L	1.00	0.01	0.004	
Endosulfan sulfate	1031-07-8	< MDL	ug/L	1.00	0.01	0.005	
Endrin	72-20-8	< MDL	ug/L	1.00	0.01	0.004	
Endrin aldehyde	7421-93-4	< MDL	ug/L	1.00	0.01	0.003	
g-BHC	58-89-9	< MDL	ug/L	1.00	0.01	0.004	
Heptachlor	76-44-8	< MDL	ug/L	1.00	0.01	0.004	
Heptachlor epoxide	1024-57-3	< MDL	ug/L	1.00	0.01	0.004	
Methoxychlor	72-43-5	< MDL	ug/L	1.00	0.01	0.003	
Mirex	2385-85-5	< MDL	ug/L	1.00	0.01	0.01	
Toxaphene	8001-35-2	< MDL	ug/L	1.00	0.1	0.1	
Tetrachloro-m-xylene(surr)	877-09-8	79.3	%	1.00			
Decachlorobiphenyl(surr)	2051-24-3	110	%	1.00			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Alpha-chlordane	0.4	0.455	114	0.4	0.458	115	0.7	23	42-132	
Gamma-chlordane	0.4	0.438	110	0.4	0.440	110	0.3	21	45-133	
4,4-DDD	0.4	0.402	101	0.4	0.438	110	8.4	24	40.8-141	
4,4-DDE	0.4	0.428	107	0.4	0.436	109	2	21	30-145	
4,4-DDT	0.4	0.448	112	0.4	0.475	119	6	30	34.3-134	
a-BHC	0.4	0.426	106	0.4	0.431	108	1.3	25	37-125	
Aldrin	0.4	0.444	111	0.4	0.449	112	1.2	23	42-129	
b-BHC	0.4	0.412	103	0.4	0.411	103	0.2	24	38.5-133	

QUALITY CONTROL CERTIFICATE

Job ID : 24031227 **Date :** 3/20/2024

Analysis : Organochlorine Pesticides **Method :** EPA 608.3 **Reporting Units :** ug/L

QC Batch ID : Qb24031855 **Created Date :** 03/15/24 **Created By :** mqiao

Samples in This QC Batch : 24031227.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
d-BHC	0.4	0.458	115	0.4	0.474	119	3.4	20	26.5-140	
Dieldrin	0.4	0.402	101	0.4	0.403	101	0.2	21	40.7-133	
Endosulfan I	0.4	0.408	102	0.4	0.411	103	0.7	24	45-124	
Endosulfan II	0.4	0.386	96.4	0.4	0.382	95.6	0.9	21	10-114	
Endosulfan sulfate	0.4	0.418	105	0.4	0.410	103	1.9	20	45-131	
Endrin	0.4	0.426	107	0.4	0.435	109	2	24	35.1-136	
Endrin aldehyde	0.4	0.422	105	0.4	0.436	109	3.4	33	33.9-130	
g-BHC	0.4	0.457	114	0.4	0.454	114	0.7	25	39-132	
Heptachlor	0.4	0.422	105	0.4	0.422	105	0.1	20	34.6-134	
Heptachlor epoxide	0.4	0.424	106	0.4	0.428	107	0.9	24	39.2-135	
Methoxychlor	0.4	0.446	112	0.4	0.498	125	10.9	24	37.7-143	

NWDLS
North Water District Laboratory Services, Inc.

Job ID:24031227
03/13/2024 NWDLS AMS

SUBCONTRACT ORDER

Sending Laboratory:

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

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

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

Work Order: 24C2287

Analysis	Due	Expires	Comments
Sample ID: 24C2287-02	***Waste Water***	***Sampled: 03/07/2024 05:00***	
OCP-608	03/21/2024	03/14/2024 05:00	Okay to analyze by 608.3
Analyte(s):			
4,4'-DDD	4,4'-DDE	4,4'-DDT	
Aldrin	alpha-BHC (alpha-Hexachlorocyclohexane)	beta-BHC (beta-Hexachlorocyclohexane)	
Chlordane (Total)	cis-Chlordane (alpha-Chlordane)	delta-BHC	
Dicofol	Dieldrin	Endosulfan I	
Endosulfan II	Endosulfan sulfate	Endrin	
Endrin aldehyde	gamma-BHC (Lindane, gamma-Hexachlorocyclo	gamma-Chlordane	
Heptachlor	Heptachlor epoxide	Methoxychlor	
Mirex	Toxaphene (Chlorinated Camphene)		
PCB-608	03/21/2024	03/02/2025 05:00	Okay to analyze by 608.3
Analyte(s):			
2,4,5,6 Tetrachloro-m-xylene-surr	Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	
Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	
Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)	Decachlorobiphenyl-surr	
PCBs, Total			

Containers Supplied:

01AB

Andrew Rodriguez 3-13-24 09:58
Released By Date

A Smith 3/13/24 09:58
Received By Date

1.1°C
IRS

Sample Condition Checklist

A&B JobID : **24031227**	Date Received : **03/13/2024**	Time Received : **9:58AM**
Client Name : **NWDLS**		
Temperature : **1.1°C**	Sample pH : **NA**	
Thermometer ID : **IR5**	pH Paper ID : **NA**	
Perservative :	Lot# :	

	Check Points	Yes	No	N/A
1.	**Cooler Seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If No comment)**	X		
8.	**Matrix:** Water ☑ Soil ☐ Liquid ☐ Sludge ☐ Solid ☐ Cassette ☐ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Samples were received in appropriate container(s)**	X		
10.	**Sample(s) were received with Proper preservative**			X
11.	**All samples were tagged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's.**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received with in the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18.	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Brought by : Client

Received by : ASmith

Check in by/date : ASmith / 03/13/2024

ab-s005-1123

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

Project
1095050

NWDS-G

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

Printed 03/22/2024
11:06

TABLE OF CONTENTS

24C2287

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

Email: Kilgore.ProjectManagement@spllabs.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
*Office: 903-984-0551 * Fax: 903-984-5914*

SAMPLE CROSS REFERENCE

Project
1095050

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

Sample	Sample ID	Taken	Time	Received
2280196	*24C2287-02*	03/07/2024	05:00:00	03/12/2024

Bottle 01 Client Supplied Amber Glass
Bottle 02 Prepared Bottle: 632L\632S 2 mL Autosampler Vial (Batch 1109344) Volume: 1.00000 mL <== Derived from 01 (926 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 632	02	1109344	03/14/2024	1110228	03/19/2024

Email: Kilgore.ProjectManagement@spllabs.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

SPL The Science of Sure

NWDS-G

Project
1095050

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

Printed: 03/22/2024

24C2287

RESULTS

Sample Results

2280196 **24C2287-02** Received: 03/12/2024

Non-Potable Water | Collected by: Client | North Water District | PO: #26201
Taken: 03/07/2024 05:00:00

EPA 632 Prepared: 1109344 03/14/2024 14:15:00 Analyzed 1110228 03/19/2024 20:37:00 BRU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	**Carbaryl (Sevin)**	**<2.70**	**ug/L**	2.70		**63-25-2**	02
z	**Diuron**	**<0.0486**	**ug/L**	0.0486		**330-54-1**	02

Sample Preparation

2280196 **24C2287-02** Received: 03/12/2024

#26201

03/07/2024

Prepared: 03/12/2024 15:38:32 *Calculated* 03/12/2024 15:38:32 CAL

z	**Environmental Fee (per Project)**	**Verified**	

EPA 632 Prepared: 1109344 03/14/2024 14:15:00 Analyzed 1109344 03/14/2024 14:15:00 CRS

	Liquid-Liquid Extr. W/Hex Ex	**1/926**	**ml**	01

EPA 632 Prepared: 1109344 03/14/2024 14:15:00 Analyzed 1110228 03/19/2024 20:37:00 BRU

NELAC	**Carbaryl/Diuron**	**Entered**	02

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
*Office: 903-984-0551 * Fax: 903-984-5914*

SPL The Science of Sure

NWDS-G

Project
1095050

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

Printed: 03/22/2024

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

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

Bill Peery

Bill Peery, MS, VP Technical Services

QUALITY CONTROL

NWDS-G

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

Project
1095050

Printed 03/22/2024

Analytical Set 1110228 EPA 632

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Carbaryl (Sevin)	1109344	ND	66.1	2500	ug/L	126117756
Diuron	1109344	ND	44.4	45.0	ug/L	126117756

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbaryl (Sevin)	996	1000	ug/L	99.6	70.0 - 130	126117755
Carbaryl (Sevin)	1030	1000	ug/L	103	70.0 - 130	126117759
Carbaryl (Sevin)	996	1000	ug/L	99.6	70.0 - 130	126117763
Carbaryl (Sevin)	1030	1000	ug/L	103	70.0 - 130	126117765
Diuron	998	1000	ug/L	99.8	70.0 - 130	126117755
Diuron	1020	1000	ug/L	102	70.0 - 130	126117759
Diuron	1010	1000	ug/L	101	70.0 - 130	126117763
Diuron	1040	1000	ug/L	104	70.0 - 130	126117765

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Carbaryl (Sevin)	1109344	945	875	1000	17.1 - 131	94.5	87.5	ug/L	7.69	30.0
Diuron	1109344	816	755	1000	0.100 - 138	81.6	75.5	ug/L	7.77	30.0

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100% Recover% is Recovery Percent: result / known * 100%

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

Email: Kilgore.ProjectManagement@spllabs.com

NWDLS

SUBCONTRACT ORDER

Sending Laboratory:

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

Project Manager: Deena Higginbotham

Subcontracted Laboratory: 2280196

SPL
2600 Dudley Rd
Kilgore, TX 75662
Phone: (903) 984-0551
Fax:

Work Order: 24C2287

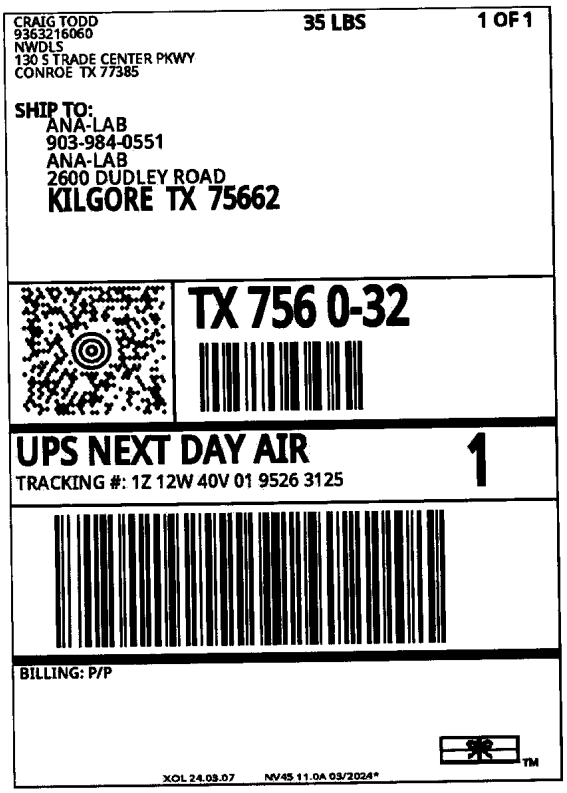
Analysis	Due	Expires	Comments
Sample ID: 24C2287-02 ***Waste Water*** ***Sampled: 03/07/2024 05:00***			
Sub_CBURP-632	03/21/2024	03/14/2024 05:00	
Analyte(s): Carbaryl	Diuron		
Containers Supplied:			

AMA — Released By — 03.11.24 — Date

UPS — Received By — 03.11.24 — Date

UPS — 3/12/24 1040

Jennifer Garrett SPL, Inc. — 3/12/24 1040



3/12 1047 LG
Date Time Tech
Temp: 016/10.7 C
Therm#: 6443 Corr Fact: 0.1 C

4

Laboratory Analysis Report

Total Number of Pages: 10

Job ID : 24042297

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

Client Project Name :
24D4502

Report To :	Client Name:	NWDLS	P.O.#.: 24D4502
	Attn:	Deena Higginbotham	Sample Collected By:
	Client Address:	130 S Trade Center Pkwy	Date Collected: 04/18/24
	City, State, Zip:	Conroe, Texas, 77385	

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

Client Sample ID	Matrix	A&B Sample ID
24D4502-01	Waste Water	24042297.01

Released By: Senthilkumar Sevukan
Title: Vice President Operations
Date: 4/24/2024

This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/01/2024; Expires: 03/31/2025
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

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

ab-q210-0321

Date Received : 04/19/2024 07:30

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 24042297

Date: 4/24/2024

General Term Definition

Back-Wt	Back Weight	MQL	Unadjusted Minimum Quantitation Limit
BRL	Below Reporting Limit	Post-Wt	Post Weight
cfu	colony-forming units	ppm	parts per million
Conc.	Concentration	Pre-Wt	Previous Weight
D.F.	Dilution Factor	Q	Qualifier
Front-Wt	Front Weight	RegLimit	Regulatory Limit
J	Estimation. Below calibration range but above MDL	RLU	Relative Light Unit
LCS	Laboratory Check Standard	RPD	Relative Percent Difference
LCSD	Laboratory Check Standard Duplicate	RptLimit	Reporting Limit
LOD	Limit of detection adjusted for %M + DF	SDL	Sample Detection Limit
LOQ	Limit of Quantitation adjusted for %M + DF	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit

Qualifier Definition

S6	Surrogate recovery is outside control limits due to matrix effects.
U	Undetected at SDL (Sample Detection Limit).
V11	CCV recovery is below acceptance limits.

LABORATORY TEST RESULTS

Job ID : 24042297

Date 4/24/2024

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 24D4502

Client Sample ID: 24D4502-01
Date Collected: 04/18/24
Time Collected: 06:00
Other Information:

Job Sample ID: 24042297.01
Sample Matrix Waste Water
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1										
	1,2,4,5-Tetrachlorobenzene	<0.00500	mg/L	1.00	0.00500	0.00500		U	04/23/24 23:39	GM
	1,2,4-Trichlorobenzene	<0.00053	mg/L	1.00	0.00053	0.00500		U	04/23/24 23:39	GM
	1,2-Diphenylhydrazine as Azobenzene	<0.00022	mg/L	1.00	0.00022	0.00500		U	04/23/24 23:39	GM
	2,2-Oxybis (1-Chloropropane)	<0.00085	mg/L	1.00	0.00085	0.00500		U	04/23/24 23:39	GM
	2,4,5-Trichlorophenol	<0.00085	mg/L	1.00	0.00085	0.00500		U	04/23/24 23:39	GM
	2,4,6-Trichlorophenol	<0.00079	mg/L	1.00	0.00079	0.00500		U	04/23/24 23:39	GM
	2,4-Dichlorophenol	<0.00069	mg/L	1.00	0.00069	0.00500		U	04/23/24 23:39	GM
	2,4-Dimethylphenol	<0.00053	mg/L	1.00	0.00053	0.00500		U	04/23/24 23:39	GM
	2,4-Dinitrophenol	<0.00140	mg/L	1.00	0.00140	0.00500		U	04/23/24 23:39	GM
	2,4-Dinitrotoluene	<0.00097	mg/L	1.00	0.00097	0.00500		U	04/23/24 23:39	GM
	2,6-Dinitrotoluene	<0.00120	mg/L	1.00	0.00120	0.00500		U	04/23/24 23:39	GM
	2-Chloronaphthalene	<0.00028	mg/L	1.00	0.00028	0.00500		U	04/23/24 23:39	GM
	2-Chlorophenol	<0.00050	mg/L	1.00	0.00050	0.00500		U	04/23/24 23:39	GM
	2-Nitrophenol	<0.00088	mg/L	1.00	0.00088	0.00500		U	04/23/24 23:39	GM
	3,3-Dichlorobenzidine	<0.00088	mg/L	1.00	0.00088	0.00500		U	04/23/24 23:39	GM
	3,4-Dimethylphenol[2]	<0.00500	mg/L	1.00	0.00500	0.00500		U	04/23/24 23:39	GM
	4,6-Dinitro-2-methylphenol	<0.00066	mg/L	1.00	0.00066	0.00500		U	04/23/24 23:39	GM
	4-Bromophenyl phenyl ether	<0.00041	mg/L	1.00	0.00041	0.00500		U	04/23/24 23:39	GM
	4-Chloro-3-methylphenol	<0.00053	mg/L	1.00	0.00053	0.00500		U	04/23/24 23:39	GM
	4-Chlorophenyl phenyl ether	<0.00066	mg/L	1.00	0.00066	0.00500		U	04/23/24 23:39	GM
	4-Nitrophenol	<0.00110	mg/L	1.00	0.00110	0.00500		U	04/23/24 23:39	GM
	Acenaphthene	<0.00028	mg/L	1.00	0.00028	0.00500		U	04/23/24 23:39	GM
	Acenaphthylene	<0.00047	mg/L	1.00	0.00047	0.00500		U	04/23/24 23:39	GM
	Anthracene	<0.00035	mg/L	1.00	0.00035	0.00500		U	04/23/24 23:39	GM
	Benzidine	<0.00066	mg/L	1.00	0.00066	0.00500		U	04/23/24 23:39	GM
	Benzo(a)anthracene	<0.00038	mg/L	1.00	0.00038	0.00500		U	04/23/24 23:39	GM
	Benzo(a)pyrene	<0.00085	mg/L	1.00	0.00085	0.00500		V11,U	04/23/24 23:39	GM
	Benzo(b)fluoranthene	<0.00057	mg/L	1.00	0.00057	0.00500		U	04/23/24 23:39	GM
	Benzo(g,h,i)perylene	<0.00063	mg/L	1.00	0.00063	0.00500		U	04/23/24 23:39	GM
	Benzo(k)fluoranthene	<0.00057	mg/L	1.00	0.00057	0.00500		V11,U	04/23/24 23:39	GM
	Bis(2-chloroethoxy) methane	<0.00035	mg/L	1.00	0.00035	0.00500		U	04/23/24 23:39	GM
	Bis(2-chloroethyl) ether	<0.00072	mg/L	1.00	0.00072	0.00500		U	04/23/24 23:39	GM
	Bis(2-ethylhexyl)phthalate	<0.00220	mg/L	1.00	0.00220	0.00500		U	04/23/24 23:39	GM
	Butyl benzyl phthalate	<0.00069	mg/L	1.00	0.00069	0.00500		U	04/23/24 23:39	GM
	Chrysene	<0.00057	mg/L	1.00	0.00057	0.00500		U	04/23/24 23:39	GM

LABORATORY TEST RESULTS

Job ID : 24042297

Date 4/24/2024

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 24D4502

Client Sample ID: 24D4502-01
Date Collected: 04/18/24
Time Collected: 06:00
Other Information:

Job Sample ID: 24042297.01
Sample Matrix Waste Water
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
EPA 625.1										
	Dibenzo(a,h)anthracene	<0.00069	mg/L	1.00	0.00069	0.00500		U	04/23/24 23:39	GM
	Diethyl phthalate	<0.00063	mg/L	1.00	0.00063	0.00500		U	04/23/24 23:39	GM
	Dimethyl phthalate	<0.00072	mg/L	1.00	0.00072	0.00500		U	04/23/24 23:39	GM
	Di-n-butyl phthalate	<0.00120	mg/L	1.00	0.00120	0.00500		U	04/23/24 23:39	GM
	Di-n-octyl Phthalate	<0.00280	mg/L	1.00	0.00280	0.00500		U	04/23/24 23:39	GM
	Fluoranthene	<0.00044	mg/L	1.00	0.00044	0.00500		U	04/23/24 23:39	GM
	Fluorene	<0.00047	mg/L	1.00	0.00047	0.00500		U	04/23/24 23:39	GM
	Hexachlorobenzene	<0.00069	mg/L	1.00	0.00069	0.00500		U	04/23/24 23:39	GM
	Hexachlorobutadiene	<0.00041	mg/L	1.00	0.00041	0.00500		U	04/23/24 23:39	GM
	Hexachlorocyclopentadiene	<0.00035	mg/L	1.00	0.00035	0.00500		V11,U	04/23/24 23:39	GM
	Hexachloroethane	<0.00047	mg/L	1.00	0.00047	0.00500		U	04/23/24 23:39	GM
	Hexachlorophene[2]	<0.0290	mg/L	1.00	0.0290	0.200		U	04/23/24 23:39	GM
	Indeno(1,2,3-cd)pyrene	<0.00022	mg/L	1.00	0.00022	0.00500		U	04/23/24 23:39	GM
	Isophorone	<0.00028	mg/L	1.00	0.00028	0.00500		U	04/23/24 23:39	GM
	Naphthalene	<0.00031	mg/L	1.00	0.00031	0.00500		U	04/23/24 23:39	GM
	Nitrobenzene	<0.00091	mg/L	1.00	0.00091	0.00500		U	04/23/24 23:39	GM
	Nitroso-N-diethylamine	<0.00500	mg/L	1.00	0.00500	0.00500		U	04/23/24 23:39	GM
	N-Nitrosodibutylamine	<0.00500	mg/L	1.00	0.00500	0.00500		U	04/23/24 23:39	GM
	N-Nitrosodimethylamine	<0.00079	mg/L	1.00	0.00079	0.00500		U	04/23/24 23:39	GM
	N-nitroso-di-n-propylamine	<0.00072	mg/L	1.00	0.00072	0.00500		U	04/23/24 23:39	GM
	N-Nitrosodiphenylamine	<0.00047	mg/L	1.00	0.00047	0.00500		U	04/23/24 23:39	GM
	Pentachlorobenzene	<0.00300	mg/L	1.00	0.00300	0.00500		U	04/23/24 23:39	GM
	Pentachlorophenol	<0.00050	mg/L	1.00	0.00050	0.00500		U	04/23/24 23:39	GM
	Phenanthrene	<0.00044	mg/L	1.00	0.00044	0.00500		U	04/23/24 23:39	GM
	Phenol	<0.00044	mg/L	1.00	0.00044	0.00500		U	04/23/24 23:39	GM
	Pyrene	<0.00057	mg/L	1.00	0.00057	0.00500		U	04/23/24 23:39	GM
	Pyridine	<0.00035	mg/L	1.00	0.00035	0.00500		U	04/23/24 23:39	GM
	2,4,6-Tribromophenol(surr)	85.1	%	1.00		19-122			04/23/24 23:39	GM
	2-Fluorobiphenyl(surr)	84.9	%	1.00		30-115			04/23/24 23:39	GM
	2-Fluorophenol(surr)	42	%	1.00		15-115			04/23/24 23:39	GM
	Nitrobenzene-d5(surr)	70.7	%	1.00		23-120			04/23/24 23:39	GM
	Phenol-d6(surr)	4.61	%	1.00		10-130		S6	04/23/24 23:39	GM
	p-Terphenyl-d14(surr)	94.1	%	1.00		18-137			04/23/24 23:39	GM

ab-q212-0321

[2]-Parameter not available for accreditation.

QUALITY CONTROL CERTIFICATE

Job ID : 24042297 **Date :** 4/24/2024

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

QC Batch ID : Qb240423150 **Created Date :** 04/23/24 **Created By :** GeMu

Samples in This QC Batch : 24042297.01

Extraction : PB24042337 **Prep Method :** EPA 625.1 **Prep Date :** 04/23/24 08:00 **Prep By :** MMuteen

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,2,4,5-Tetrachlorobenzene	95-94-3	< MDL	mg/L	1.00	0.005	0.005	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1.00	0.005	0.00053	
1,2-Diphenylhydrazine as A	122-66-7	< MDL	mg/L	1.00	0.005	0.00022	
2,2-Oxybis (1-Chloropropan	108-60-1	< MDL	mg/L	1.00	0.005	0.00085	
2,4,5-Trichlorophenol	95-95-4	< MDL	mg/L	1.00	0.005	0.00085	
2,4,6-Trichlorophenol	88-06-2	< MDL	mg/L	1.00	0.005	0.00079	
2,4-Dichlorophenol	120-83-2	< MDL	mg/L	1.00	0.005	0.00069	
2,4-Dimethylphenol	105-67-9	< MDL	mg/L	1.00	0.005	0.00053	
2,4-Dinitrophenol	51-28-5	< MDL	mg/L	1.00	0.005	0.00141	
2,4-Dinitrotoluene	121-14-2	< MDL	mg/L	1.00	0.005	0.00097	
2,6-Dinitrotoluene	606-20-2	< MDL	mg/L	1.00	0.005	0.00122	
2-Chloronaphthalene	91-58-7	< MDL	mg/L	1.00	0.005	0.00028	
2-Chlorophenol	95-57-8	< MDL	mg/L	1.00	0.005	0.00050	
2-Nitrophenol	88-75-5	< MDL	mg/L	1.00	0.005	0.00088	
3,3-Dichlorobenzidine	91-94-1	< MDL	mg/L	1.00	0.005	0.00088	
3,4-Dimethylphenol	95-65-8	< MDL	mg/L	1.00	0.005	0.005	
4,6-Dinitro-2-methylphenol	534-52-1	< MDL	mg/L	1.00	0.005	0.00066	
4-Bromophenyl phenyl ethe	101-55-3	< MDL	mg/L	1.00	0.005	0.00041	
4-Chloro-3-methylphenol	59-50-7	< MDL	mg/L	1.00	0.005	0.00053	
4-Chlorophenyl phenyl ethe	7005-72-3	< MDL	mg/L	1.00	0.005	0.00066	
4-Nitrophenol	100-02-7	< MDL	mg/L	1.00	0.005	0.00113	
Acenaphthene	83-32-9	< MDL	mg/L	1.00	0.005	0.00028	
Acenaphthylene	208-96-8	< MDL	mg/L	1.00	0.005	0.00047	
Anthracene	120-12-7	< MDL	mg/L	1.00	0.005	0.00035	
Benzidine	92-87-5	< MDL	mg/L	1.00	0.005	0.00066	
Benzo(a)anthracene	56-55-3	< MDL	mg/L	1.00	0.005	0.00038	
Benzo(a)pyrene	50-32-8	< MDL	mg/L	1.00	0.005	0.00085	
Benzo(b)fluoranthene	205-99-2	< MDL	mg/L	1.00	0.005	0.00057	
Benzo(g,h,i)perylene	191-24-2	< MDL	mg/L	1.00	0.005	0.00063	
Benzo(k)fluoranthene	207-08-9	< MDL	mg/L	1.00	0.005	0.00057	
Bis(2-chloroethoxy) methan	111-91-1	< MDL	mg/L	1.00	0.005	0.00035	
Bis(2-chloroethyl) ether	111-44-4	< MDL	mg/L	1.00	0.005	0.00072	
Bis(2-ethylhexyl)phthalate	117-81-7	< MDL	mg/L	1.00	0.005	0.00220	
Butyl benzyl phthalate	85-68-7	< MDL	mg/L	1.00	0.005	0.00069	
Chrysene	218-01-9	< MDL	mg/L	1.00	0.005	0.00057	
Dibenzo(a,h)anthracene	53-70-3	< MDL	mg/L	1.00	0.005	0.00069	
Diethyl phthalate	84-66-2	< MDL	mg/L	1.00	0.005	0.00063	
Dimethyl phthalate	131-11-3	< MDL	mg/L	1.00	0.005	0.00072	

ab-q213-0321

Refer to the Definition page for terms.

Job ID : 24042297 **Date :** 4/24/2024

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

QC Batch ID : Qb240423150 **Created Date :** 04/23/24 **Created By :** GeMu

Samples in This QC Batch : 24042297.01

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Di-n-butyl phthalate	84-74-2	< MDL	mg/L	1.00	0.005	0.00122	
Di-n-octyl Phthalate	117-84-0	< MDL	mg/L	1.00	0.005	0.00276	
Fluoranthene	206-44-0	< MDL	mg/L	1.00	0.005	0.00044	
Fluorene	86-73-7	< MDL	mg/L	1.00	0.005	0.00047	
Hexachlorobenzene	118-74-1	< MDL	mg/L	1.00	0.005	0.00069	
Hexachlorobutadiene	87-68-3	< MDL	mg/L	1.00	0.005	0.00041	
Hexachlorocyclopentadiene	77-47-4	< MDL	mg/L	1.00	0.005	0.00035	
Hexachloroethane	67-72-1	< MDL	mg/L	1.00	0.005	0.00047	
Hexachlorophene	70-30-4	< MDL	mg/L	1.00	0.2	0.0287	
Indeno(1,2,3-cd)pyrene	193-39-5	< MDL	mg/L	1.00	0.005	0.00022	
Isophorone	78-59-1	< MDL	mg/L	1.00	0.005	0.00028	
Naphthalene	91-20-3	< MDL	mg/L	1.00	0.005	0.00031	
Nitrobenzene	98-95-3	< MDL	mg/L	1.00	0.005	0.00091	
Nitroso-N-diethylamine	55-18-5	< MDL	mg/L	1.00	0.005	0.005	
N-Nitrosodibutylamine	924-16-3	< MDL	mg/L	1.00	0.005	0.005	
N-Nitrosodimethylamine	62-75-9	< MDL	mg/L	1.00	0.005	0.00079	
N-nitroso-di-n-propylamine	621-64-7	< MDL	mg/L	1.00	0.005	0.00072	
N-Nitrosodiphenylamine	86-30-6	< MDL	mg/L	1.00	0.005	0.00047	
Pentachlorobenzene	608-93-5	< MDL	mg/L	1.00	0.005	0.003	
Pentachlorophenol	87-86-5	< MDL	mg/L	1.00	0.005	0.00050	
Phenanthrene	85-01-8	< MDL	mg/L	1.00	0.005	0.00044	
Phenol	108-95-2	< MDL	mg/L	1.00	0.005	0.00044	
Pyrene	129-00-0	< MDL	mg/L	1.00	0.005	0.00057	
Pyridine	110-86-1	< MDL	mg/L	1.00	0.005	0.00035	
2-Fluorophenol(surr)	367-12-4	48.4	%	1.00			
Phenol-d6(surr)	13127-88-3	30	%	1.00			
Nitrobenzene-d5(surr)	4165-60-0	59.8	%	1.00			
2-Fluorobiphenyl(surr)	321-60-8	74.1	%	1.00			
2,4,6-Tribromophenol(surr)	118-79-6	92.3	%	1.00			
p-Terphenyl-d14(surr)	1718-51-0	95.1	%	1.00			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,4,5-Tetrachlorobenzene	0.05	0.0409	81.8	0.05	0.0426	85.3	4	30	50.9-96.1	
1,2,4-Trichlorobenzene	0.05	0.0392	78.4	0.05	0.0402	80.4	2.5	30	57-130	
1,2-Diphenylhydrazine as A	0.05	0.0430	85.9	0.05	0.0431	86.1	0.3	30	47.1-113	
2,2-Oxybis (1-Chloropropan	0.05	0.0354	70.8	0.05	0.0355	71	0.3	30	70-130	
2,4,5-Trichlorophenol	0.05	0.0439	87.8	0.05	0.0435	87	0.9	30	35.4-117	

ab-q213-0321

Refer to the Definition page for terms.

Job ID : 24042297 **Date :** 4/24/2024

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

QC Batch ID : Qb240423150 **Created Date :** 04/23/24 **Created By :** GeMu

Samples in This QC Batch : 24042297.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
2,4,6-Trichlorophenol	0.05	0.0482	96.4	0.05	0.0477	95.5	1	30	52-118	
2,4-Dichlorophenol	0.05	0.0435	87	0.05	0.0465	93	6.6	30	53-116	
2,4-Dimethylphenol	0.1	0.0909	90.9	0.1	0.0956	95.6	5	30	42-120	
2,4-Dinitrophenol	0.05	0.0508	102	0.05	0.0485	97	4.6	30	10-143	
2,4-Dinitrotoluene	0.05	0.0498	99.6	0.05	0.0484	96.7	2.9	30	51.2-127	
2,6-Dinitrotoluene	0.05	0.0482	96.5	0.05	0.0466	93.2	3.5	30	68-118	
2-Chloronaphthalene	0.05	0.0354	70.7	0.05	0.0358	71.7	1.3	30	65-120	
2-Chlorophenol	0.05	0.0349	69.9	0.05	0.0389	77.8	10.8	30	36-120	
2-Nitrophenol	0.05	0.0424	84.8	0.05	0.0432	86.4	1.9	30	45-119	
3,3-Dichlorobenzidine	0.05	0.0475	95.1	0.05	0.0501	100	5.3	30	48.2-116	
3,4-Dimethylphenol	0.05	0.0300	60	0.05	0.0322	64.4	7	30	60-140	
4,6-Dinitro-2-methylphenol	0.05	0.0464	92.8	0.05	0.0497	99.4	6.8	30	53-130	
4-Bromophenyl phenyl ethe	0.05	0.0488	97.6	0.05	0.0510	102	4.4	30	65-112	
4-Chloro-3-methylphenol	0.05	0.0489	97.8	0.05	0.0475	95	2.9	30	45.3-114	
4-Chlorophenyl phenyl ethe	0.05	0.0469	93.7	0.05	0.0458	91.6	2.3	30	56.3-108	
4-Nitrophenol	0.05	0.0234	46.8	0.05	0.0216	43.2	8	30	13-129	
Acenaphthene	0.05	0.0433	86.7	0.05	0.0418	83.5	3.6	30	60-132	
Acenaphthylene	0.05	0.0411	82.2	0.05	0.0421	84.2	2.4	30	54-126	
Anthracene	0.05	0.0444	88.9	0.05	0.0465	93	4.5	30	53.5-112	
Benzidine	0.05	0.0480	96.1	0.05	0.0517	103	7.3	30	24.8-140	
Benzo(a)anthracene	0.05	0.0455	91.1	0.05	0.0480	95.9	5.3	30	50.7-122	
Benzo(a)pyrene	0.05	0.0348	69.6	0.05	0.0339	67.8	2.6	30	41.3-146	
Benzo(b)fluoranthene	0.05	0.0352	70.4	0.05	0.0356	71.3	1.1	30	35.2-134	
Benzo(g,h,i)perylene	0.05	0.0359	71.8	0.05	0.0377	75.4	4.9	30	32-131	
Benzo(k)fluoranthene	0.05	0.0301	60.2	0.05	0.0314	62.7	4.3	30	35.3-128	
Bis(2-chloroethoxy) methan	0.05	0.0374	74.9	0.05	0.0382	76.4	2	30	49-165	
Bis(2-chloroethyl) ether	0.05	0.0309	61.8	0.05	0.0333	66.5	7.5	30	43-126	
Bis(2-ethylhexyl)phthalate	0.05	0.0502	100	0.05	0.0502	100	0	30	44.2-129	
Butyl benzyl phthalate	0.05	0.0478	95.6	0.05	0.0495	99	3.5	30	52.1-133	
Chrysene	0.05	0.0438	87.6	0.05	0.0469	93.7	6.8	30	57.5-119	
Dibenzo(a,h)anthracene	0.05	0.0368	73.5	0.05	0.0386	77.3	4.9	30	36.2-136	
Diethyl phthalate	0.05	0.0509	102	0.05	0.0492	98.4	3.4	30	50.7-120	
Dimethyl phthalate	0.05	0.0454	90.7	0.05	0.0443	88.7	2.3	30	55.9-112	
Di-n-butyl phthalate	0.05	0.0510	102	0.05	0.0496	99.2	2.8	30	54-120	
Di-n-octyl Phthalate	0.05	0.0539	108	0.05	0.0548	110	1.6	30	45.9-125	
Fluoranthene	0.05	0.0477	95.4	0.05	0.0494	98.8	3.5	30	48.9-121	
Fluorene	0.05	0.0476	95.3	0.05	0.0476	95.2	0.1	30	70-113	
Hexachlorobenzene	0.05	0.0498	99.5	0.05	0.0506	101	1.6	30	52.7-107	
Hexachlorobutadiene	0.05	0.0357	71.4	0.05	0.0386	77.3	7.8	30	38-120	
Hexachlorocyclopentadiene	0.05	0.0542	108	0.05	0.0563	113	3.8	30	12.7-170	
Hexachlorocyclopentadiene	0.05	0.0542	108	0.05	0.0563	113	3.8	30	12.7-171	

QUALITY CONTROL CERTIFICATE

Job ID : 24042297 **Date :** 4/24/2024

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

QC Batch ID : Qb240423150 **Created Date :** 04/23/24 **Created By :** GeMu

Samples in This QC Batch : 24042297.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Hexachloroethane	0.05	0.0438	87.6	0.05	0.0492	98.5	11.7	30	55-120	
Indeno(1,2,3-cd)pyrene	0.05	0.0362	72.3	0.05	0.0378	75.6	4.4	30	40.7-132	
Isophorone	0.05	0.0366	73.2	0.05	0.0388	77.6	5.8	30	47-180	
Naphthalene	0.05	0.0370	74.1	0.05	0.0386	77.3	4.1	30	36-120	
Nitrobenzene	0.05	0.0391	78.2	0.05	0.0419	83.8	6.9	30	54-158	
Nitroso-N-diethylamine	0.05	0.0374	74.7	0.05	0.0399	79.8	6.6	30	47.1-100	
N-Nitrosodibutylamine	0.05	0.0379	75.8	0.05	0.0369	73.8	2.6	30	47.3-102	
N-Nitrosodimethylamine	0.05	0.0276	55.1	0.05	0.0276	55.2	0.2	30	33.1-74.1	
N-nitroso-di-n-propylamine	0.05	0.0370	74.1	0.05	0.0406	81.2	9.2	30	14-198	
N-Nitrosodiphenylamine	0.05	0.0429	85.7	0.05	0.0448	89.5	4.4	30	56.2-110	
Pentachlorobenzene	0.05	0.0483	96.6	0.05	0.0488	97.5	1.1	30	56.1-101	
Pentachlorophenol	0.05	0.0498	99.6	0.05	0.0530	106	6.2	30	38-135	
Phenanthrene	0.05	0.0435	87	0.05	0.0448	89.7	2.9	30	65-120	
Phenol	0.05	0.0180	36	0.05	0.0193	38.5	6.9	30	17-120	
Pyrene	0.05	0.0424	84.9	0.05	0.0430	85.9	1.3	30	70-120	
Pyridine	0.05	0.0232	46.5	0.05	0.0237	47.4	2	30	33-158	

NWDLS
North Water District Laboratory Services, Inc.

*** Job ID:24042297**

04/18/2024 NWDLS AMS

SUBCONTRACT ORDER

Sending Laboratory:

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

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

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

Work Order: 24D4502

Analysis	Due	Expires	Comments

Sample ID: 24D4502-01 ***Waste Water Sampled: 04/18/2024 06:00***

Sub_SVOA-625.1 04/24/2024 04/25/2024 06:00

Analyte(s):

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

Containers Supplied:

01AB

Andrew Rodriguez 4-19-24
Released By Date

Received By 04/19/24 0730
Date

3.1°C
IR5

Sample Condition Checklist

A&B JobID : **24042297**	Date Received : **04/19/2024**	Time Received : **7:30AM**
Client Name : **NWDLS**		
Temperature : **3.1°C**	Sample pH : **NA**	
Thermometer ID : **IR5**	pH Paper ID : **NA**	
Perservative :	Lot# :	

	Check Points	Yes	No	N/A
1.	**Cooler Seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If No comment)**	X		
8.	**Matrix:** Water ☑ Soil ☐ Liquid ☐ Sludge ☐ Solid ☐ Cassette ☐ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Samples were received in appropriate container(s)**	X		
10.	**Sample(s) were received with Proper preservative**			X
11.	**All samples were tagged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's.**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received with in the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18.	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Brought by : Client

Received by : Jedralin

Check in by/date : Jedralin / 04/19/2024

ab-s005-1123

ATTACHMENT Q

SLUDGE DISPOSAL

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

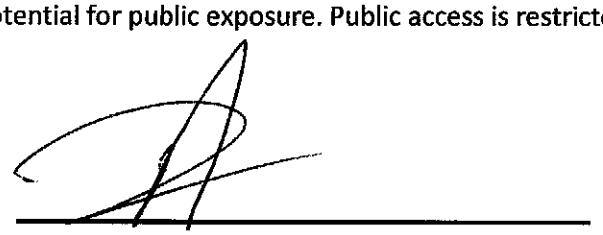
QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

K-3 Resources LP
CN603843426
Beneficial Land Application WQ0004448000
RN102911864
Certification Statement
Reporting Period: August 1, 2020 to July 31, 2021

A. I certify, under penalty of law, that:
1. The pathogen requirement in 30 TAC 312.82(b) and the vector attraction reduction requirements in 30 TAC 312.83(b) have been met.
2. The requirements to obtain information in 30 TAC 312.42 (e) have been met.
3. The management practices in 30 TAC 312.44 have been met.
4. The site restriction in 30 TAC 312.82 (b)(3) have been met.

This determination has been made under my direction and supervision in accordance with Biosolids Management's system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that these requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

B. Method of Compliance:
1. Certification data required for demonstrating Class B pathogen control (30 TAC 312.82 (b)), pollutant levels (30 TAC 312.43) and vector attraction reduction (30 TAC 312.83 (b)) are supplied by the generator (30 TAC 312.32 (e)) and retained at Biosolids Management's Main Office.
2. The following management practices are followed in compliance with 30 TAC 312.44:
   a. Biosolids applications to this site do not adversely affect any threatened or endangered species.
   b. Biosolids are not applied when ground is frozen, snow covered, or flooded.
   c. Biosolids application is restricted to areas within the site in compliance with the requirements described in 30 TAC 312.44 (c), (h), and (k).
3. The following site restrictions are maintained in compliance with 30 TAC 312.82 (b)(3):
   a. Food crops with harvested parts that touch the soil/biosolids mixture or have harvested parts below the surface are not grown on this site.
   b. Food, feed, and fiber crops grown on this site are not harvested for thirty days after application.
   c. Animals are not allowed to graze on the land for thirty days after application.
   d. The site has a low potential for public exposure. Public access is restricted for at least thirty days after application.



Andy Drennan
Vice President/COO

Note to operator:
Please complete and submit with Discharge Monitoring Report (DMR):

Plant Name (as shown in permit): Harris County MUD 200

TPDES Permit Number: TX0085413

K-3 Resources LP
CN603843426
Beneficial Land Application WQ0004445000
RN102913431
Certification Statement
Reporting Period: August 1, 2020 to July 31, 2021

A. I certify, under penalty of law, that:

1. The pathogen requirement in 30 TAC 312.82(b) and the vector attraction reduction requirements in 30 TAC 312.83(b) have been met.
2. The requirements to obtain information in 30 TAC 312.42 (e) have been met.
3. The management practices in 30 TAC 312.44 have been met.
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B. Method of Compliance:

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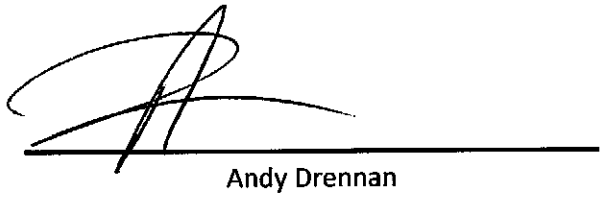

Andy Drennan
Vice President/COO

Note to operator:
Please complete and submit with Discharge Monitoring Report (DMR):

Plant Name (as shown in permit): Harris County MUD 200

TPDES Permit Number: TX0085413

K-3 Resources LP
CN603843426
Beneficial Land Application WQ0004450000
RN1029911898
Certification Statement
Reporting Period: August 1, 2020 to July 31, 2021

A. I certify, under penalty of law, that:
1. The pathogen requirement in 30 TAC 312.82(b) and the vector attraction reduction requirements in 30 TAC 312.83(b) have been met.
2. The requirements to obtain information in 30 TAC 312.42 (e) have been met.
3. The management practices in 30 TAC 312.44 have been met.
4. The site restriction in 30 TAC 312.82 (b)(3) have been met.

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B. Method of Compliance:
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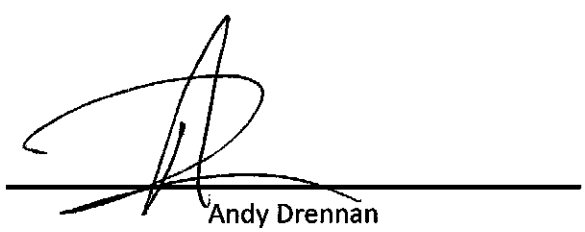

Andy Drennan
Vice President/COO

Note to operator:
Please complete and submit with Discharge Monitoring Report (DMR):

Plant Name (as shown in permit): Harris County MUD 200

TPDES Permit Number: TX0085413

K-3 Resources LP
CN603843426
Beneficial Land Application WQ0004518000
RN102984986
Certification Statement
Reporting Period: August 1, 2020 to July 31, 2021

A. I certify, under penalty of law, that:
1. The pathogen requirement in 30 TAC 312.82(b) and the vector attraction reduction requirements in 30 TAC 312.83(b) have been met.
2. The requirements to obtain information in 30 TAC 312.42 (e) have been met.
3. The management practices in 30 TAC 312.44 have been met.
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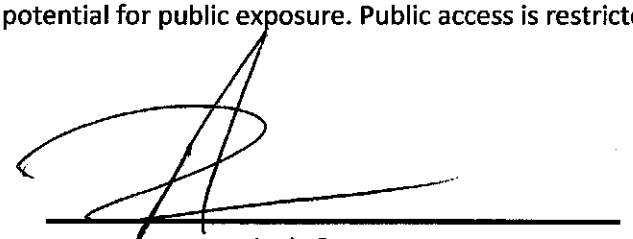

Andy Drennan
Vice President/COO

Note to operator:
Please complete and submit with Discharge Monitoring Report (DMR):

Plant Name (as shown in permit): Harris County MUD 200

TPDES Permit Number: TX0085413

K-3 Resources LP
CN603843426
Beneficial Land Application WQ0005222000
RN109679613
Certification Statement
Reporting Period: August 1, 2020 to July 31, 2021

A. I certify, under penalty of law, that:

1. The pathogen requirement in 30 TAC 312.82(b) and the vector attraction reduction requirements in 30 TAC 312.83(b) have been met.
2. The requirements to obtain information in 30 TAC 312.42 (e) have been met.
3. The management practices in 30 TAC 312.44 have been met.
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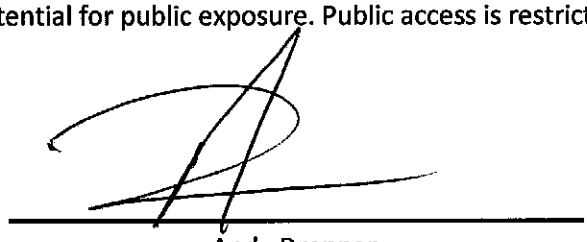

Andy Drennan
Vice President/COO

Note to operator:
Please complete and submit with Discharge Monitoring Report (DMR):

Plant Name (as shown in permit): Harris County MUD 200

TPDES Permit Number: TX0085413

K-3 Resources LP
CN603843426
Beneficial Land Application WQ0005248000
RN110134855
Certification Statement
Reporting Period: August 1, 2020 to July 31, 2021

A. I certify, under penalty of law, that:

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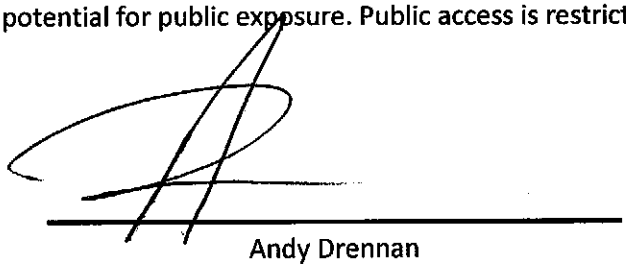


Andy Drennan
Vice President/COO

Note to operator:
Please complete and submit with Discharge Monitoring Report (DMR):

Plant Name (as shown in permit): Harris County MUD 200

TPDES Permit Number: TX0085413

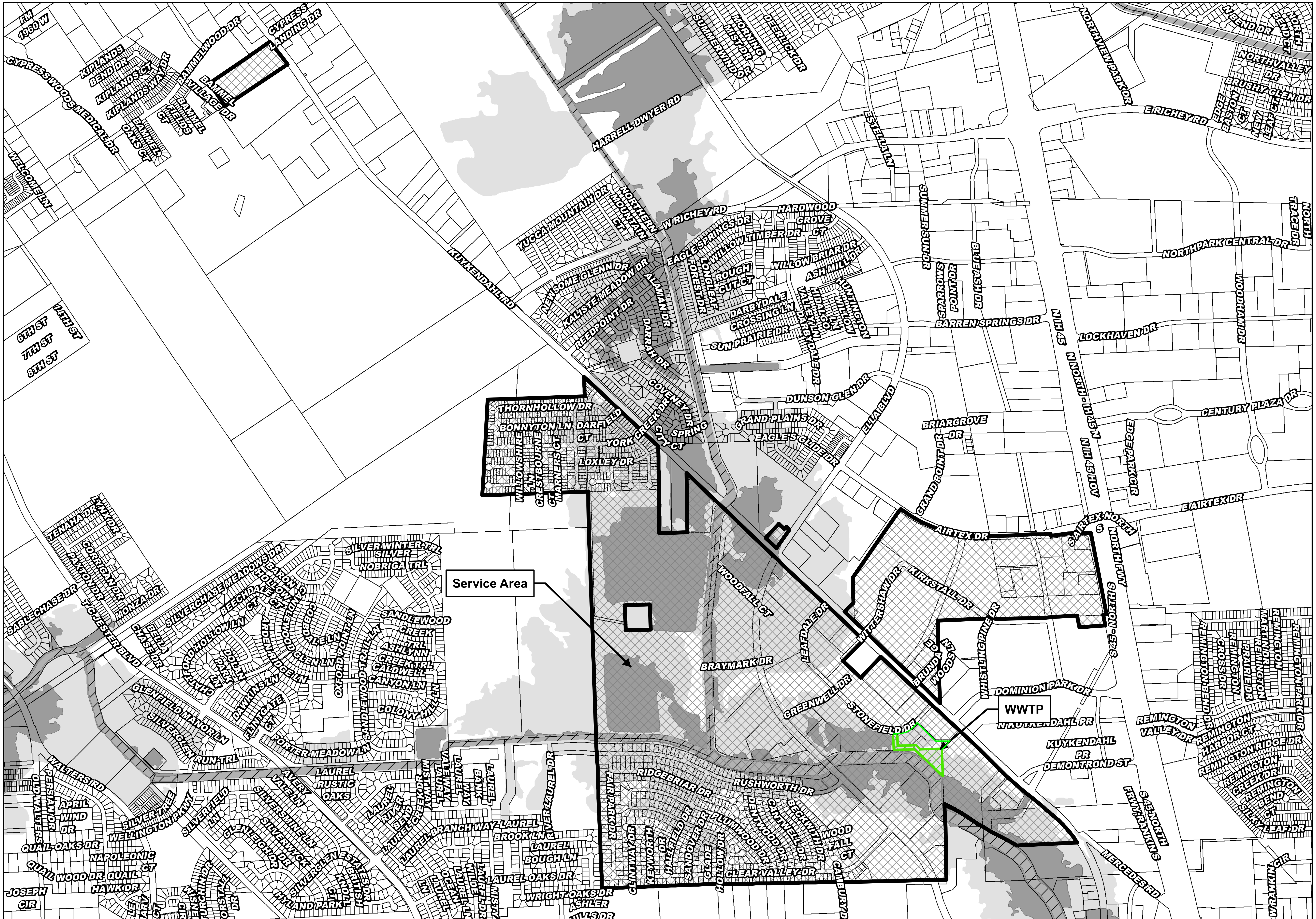
ATTACHMENT R

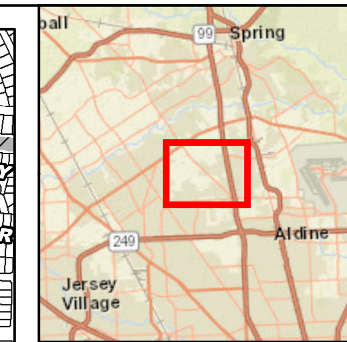
FEMA FLOOD MAP

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337





VICINITY MAP
1 INCH = 10 MILES

LEGEND

- Plant Boundary
- Service Area
- Service Area Boundary
- Floodway
- 100-Year Floodzone
- 500-Year Floodzone
- HCAD Parcels

FLOODPLAIN MAP

HARRIS COUNTY MUD No. 200
HARRIS COUNTY, TEXAS

N S E W

0 1,300
1 INCH : 1,300 FEET
IMAGERY PROVIDED BY NEARMAP

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\J_Nguyen\HCMUD 200\Floodplain_Map_(11x17).mxd Project Number: 00085-0228-01-001 Date: 1/16/2024 User Name: lda

ATTACHMENT S

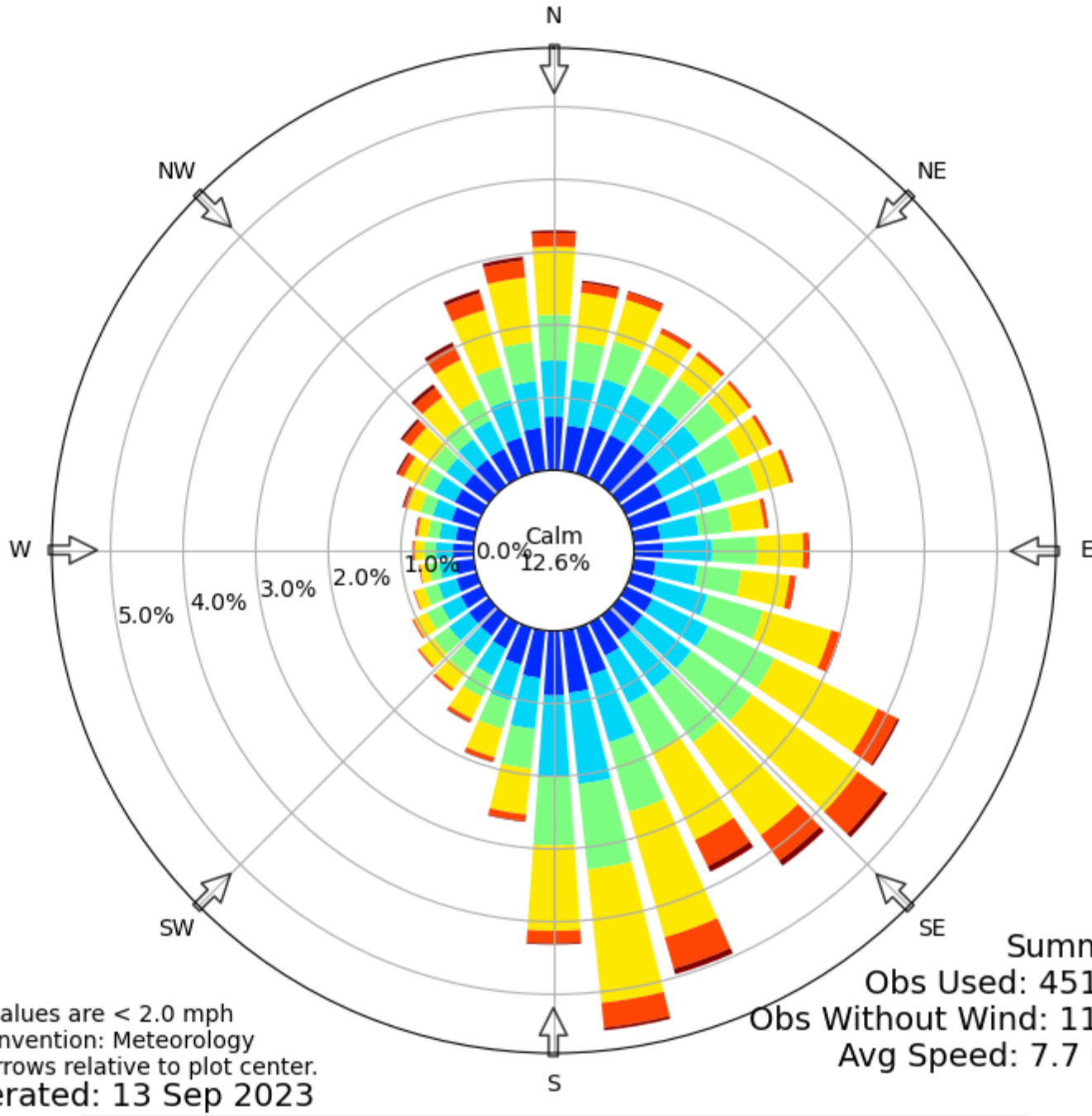
WINDROSE

HARRIS COUNTY MUD NO. 200
TPDES RENEWAL WITH MAJOR AMENDMENT

MAY 2024

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

Windrose Plot for [IAH] Houston Intercontinental
Obs Between: 01 Jan 1970 03:00 AM - 13 Sep 2023 02:53 AM America/Chicago



Summary
Obs Used: 451575
Obs Without Wind: 11261
Avg Speed: 7.7 mph

Calm values are < 2.0 mph
Bar Convention: Meteorology
Flow arrows relative to plot center.
Generated: 13 Sep 2023

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

Leah Whallon

From: Jonathan Nguyen <jnguyen@quiddity.com>
Sent: Friday, July 5, 2024 8:00 AM
To: Leah Whallon
Cc: Cory Tyler PE
Subject: RE: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200
Attachments: HCMUD 200 Affected Landowners Mailing Labels.docx; HCMUD 200 Affected Landowners Map and List 07052024.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Leah,

See attached. Let me know if you have any questions.

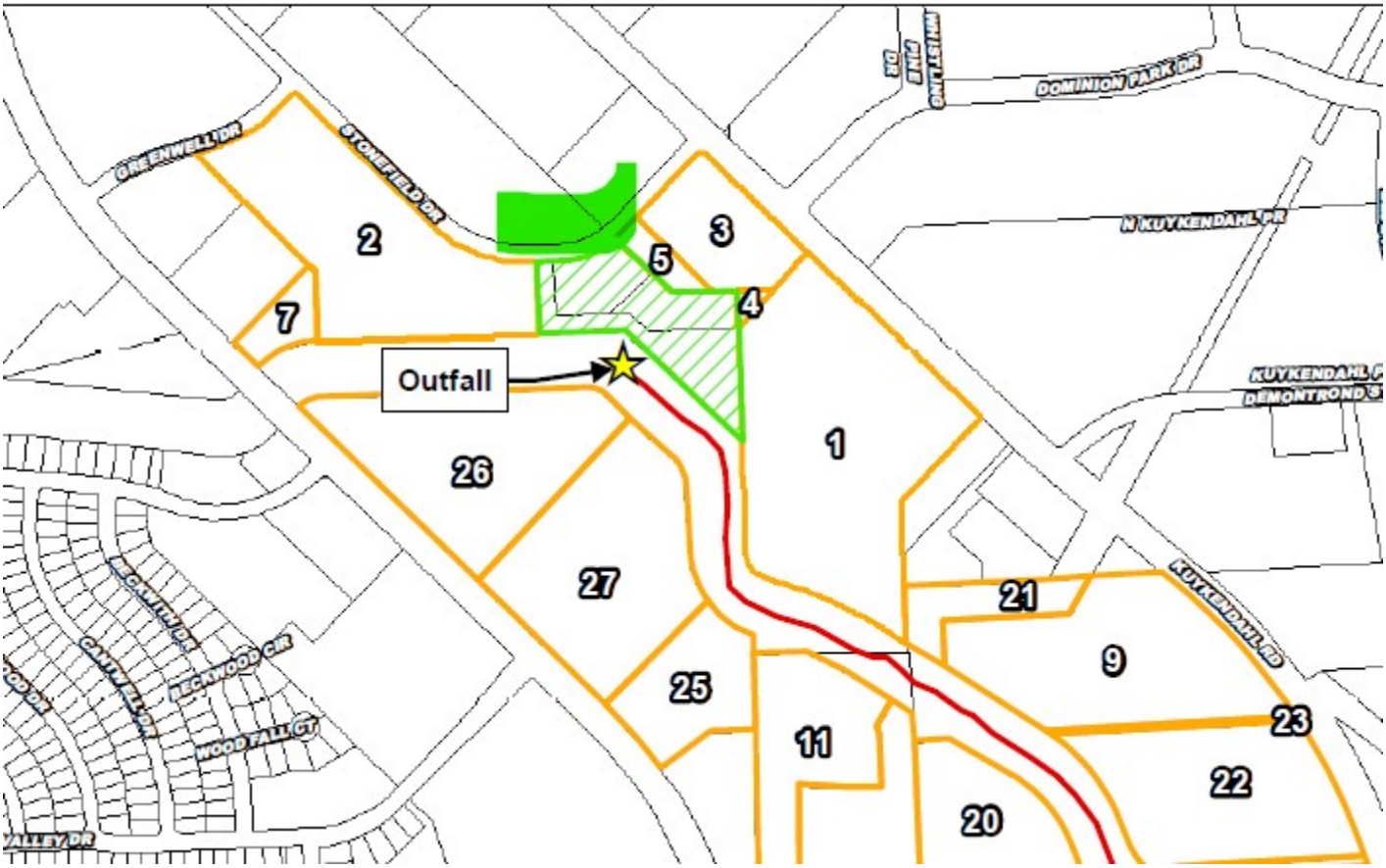
Thank you,

Jonathan Nguyen
Permitting Specialist
Email: jnguyen@quiddity.com
T: (512) 685-5156

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Wednesday, July 3, 2024 9:58 AM
To: Jonathan Nguyen <jnguyen@quiddity.com>
Cc: Cory Tyler PE <rtyler@quiddity.com>
Subject: RE: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200

Thank you, Jonathan.

The updated map and list show properties 4 and 5 owned by the applicant. All contiguous properties need to be included in the applicant's property boundary. There are still a few adjacent properties to the north that are also not included. The map, list, and labels will need to be updated to include this as well. Please let me know if you have any questions or need additional time to revise.



Thanks,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

---

From: Jonathan Nguyen <jnguyen@quiddity.com>
Sent: Tuesday, July 2, 2024 3:36 PM
To: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Cc: Cory Tyler PE <rtyler@quiddity.com>
Subject: RE: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200

Good afternoon Leah,

See attached updated affected landowners map and list and the mailing labels. Please let us know if you have any questions.

Thank you!

Jonathan Nguyen
Permitting Specialist
Email: jnguyen@quiddity.com
T: (512) 685-5156

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Tuesday, July 2, 2024 12:41 PM
To: Jonathan Nguyen <jnguyen@quiddity.com>
Cc: Cory Tyler PE <rtyler@quiddity.com>
Subject: RE: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200

Hi Jonathan,

I've reviewed the response and there are still a few changes needed on the affected landowner map. Property numbers 3, 4, and 5 are owned by the applicant and must be included in the applicant's property boundary.

Please provide a revised affected landowner map that shows all contiguous properties owned by the applicant as the applicant's property boundaries and labels all properties adjacent to the applicant's property boundaries as the affected landowners. Please also provide a revised cross-referenced landowner list and the landowner list formatted for mailing labels (Avery 5160) in a Microsoft Word document.

Please let me know if you need additional time to make the revisions and I can send the 30 day extension letter. Let me know if you have any questions.

Thanks,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

From: Leah Whallon
Sent: Monday, June 24, 2024 4:20 PM
To: Jonathan Nguyen <jnguyen@quiddity.com>
Cc: Cory Tyler PE <rtyler@quiddity.com>
Subject: RE: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200

Thank you, Jonathan.

Response received. I will review and let you know if we need anything else. Please let me know if you have any questions.

Thanks,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

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From: Jonathan Nguyen <jnguyen@quiddity.com>
Sent: Monday, June 24, 2024 1:15 PM
To: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Cc: Cory Tyler PE <rtyler@quiddity.com>
Subject: RE: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200

Good afternoon,

Attached are the following items:

1. Updated affected landowners map and list
2. Updated affected landowners mailing labels
3. Spanish translated NORI

The NORI statement in the NOD is good to go. Please let us know if you have any questions.

Thank you!

Jonathan Nguyen
Permitting Specialist
Email: jnguyen@quiddity.com
T: (512) 685-5156

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Friday, June 14, 2024 12:04 PM
To: Jonathan Nguyen <jnguyen@quiddity.com>
Cc: Michelle A. Troy PE <mtroy@quiddity.com>
Subject: Application to Amend Permit No. WQ0012294001; Harris County Municipal Utility District No. 200

Good Afternoon,

Please see the attached Notice of Deficiency letter dated June 14, 2024 requesting additional information needed to declare the application administratively complete. Please send the complete response by June 28, 2024.

Please let me know if you have any questions.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

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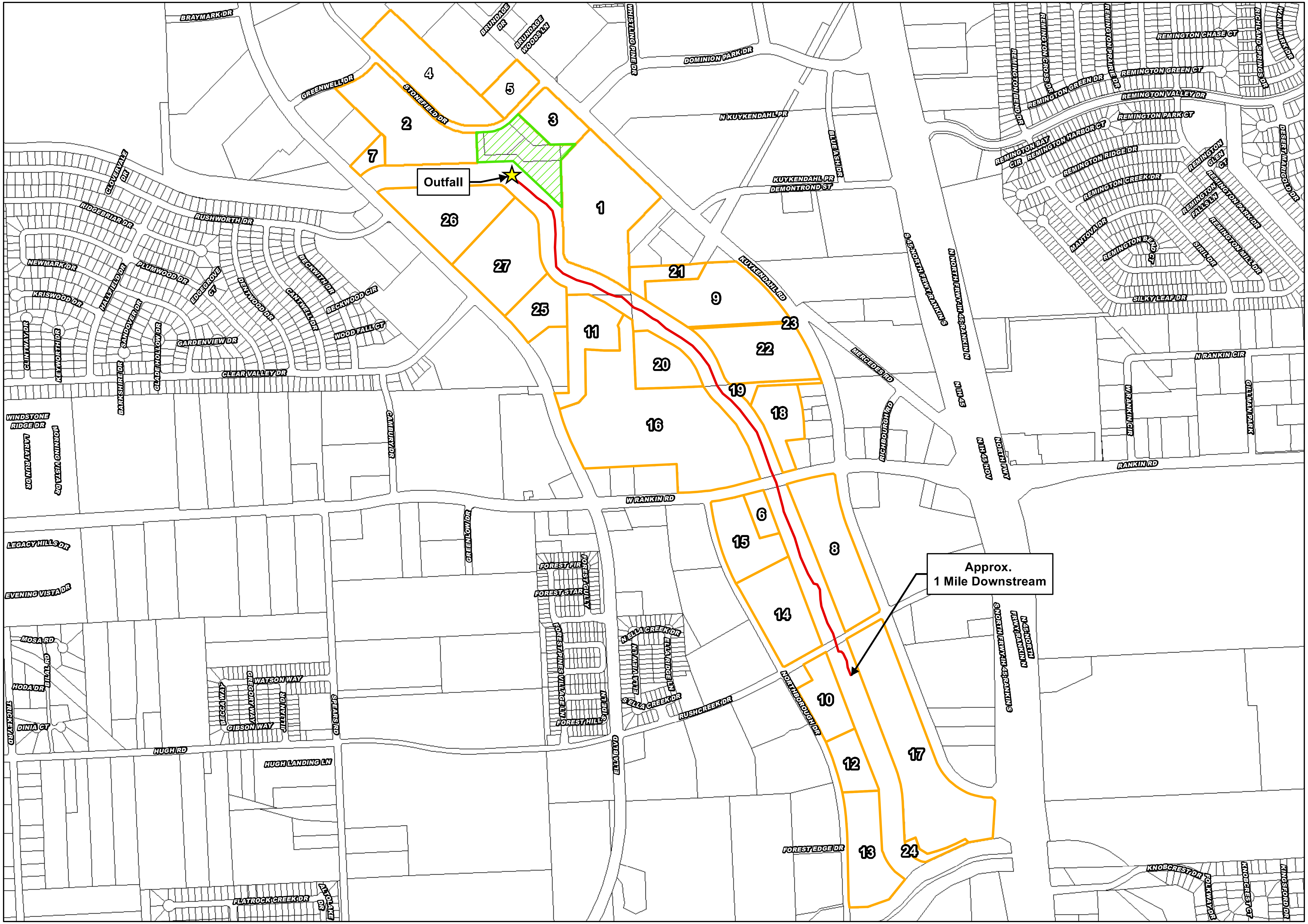

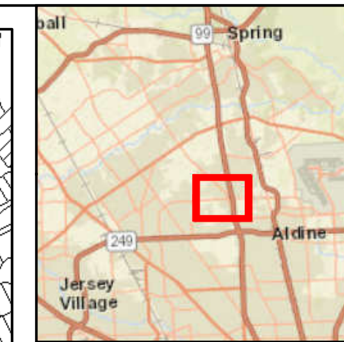

VICINITY MAP
1 INCH = 10 MILES

LEGEND

- Outfall
- Discharge Route
- Affected Landowners
- Applicant Property Boundary
- HCAD Parcels

AFFECTED LANDOWNERS MAP

HARRIS COUNTY MUD No. 200
HARRIS COUNTY, TEXAS

N / S / E / W

0 750
1 INCH : 750 FEET
IMAGERY PROVIDED BY NEARMAP

QUIDDITY
Texas Board of Professional Engineers Registration No. F-23290

Path: V:\Practice Workspace\Corporate Services\GIS\Projects\0_Individuals\J_Nguyen\HCMUD 200\Affected_Landowners_(11x17).mxd Project Number: 00085-0228-01-001 Date: 7/3/2024 User Name: lda

HCMUD 200 Affected Landowners List

ID	Owner	Mailing Address
1	KUYKENDAHL PROPERTY 1996	4808 GIBSON ST, HOUSTON, TX 77007-5480
2	SIERA INVEST TX INC	7047 HARRISBURG BLVD, HOUSTON, TX 77011-4645
3	MKSN INVESTMENTS LLC	644 MAXEY RD STE C, HOUSTON, TX 77013-5900
4	HUNTINGTON 13100 LLC	143 MANOR LAKE ESTATES DR, SPRING, TX 77379-3722
5	GRUNDMEYER LIVING TRUST	2464 CYPRESS CREEK PKWY, HOUSTON, TX 77068-3721
6	PATEL GITA	4949 DACOMA ST, HOUSTON, TX 77092-7725
7	LE TRUONG K	7731 HERON LAKES DR, HOUSTON, TX 77064-1711
8	GREATER GREENSPOINT REDEV AUTHORITY	450 GEARS RD STE 200, HOUSTON, TX 77067-4513
9	AUGUSTA NORTH HOUSTON LLC	2929 W WAPOOT ST, MERIDIAN, ID 83646
10	CANFIELD LAKES LLC	143 MANOR LAKE ESTATES DR, SPRING, TX 77379-3722
11	ELLA REAL ESTATE HOLDINGS LTD	4299 SAN FELIPE ST STE 115, HOUSTON, TX 77027-2980
12	PINEFOREST 2016 INVESTMENT LLC	143 MANOR LAKE ESTATES DR, SPRING, TX 77379-3722
13	PINEFOREST 2016 INVESTMENT LLC	143 MANOR LAKE ESTATES DR, SPRING, TX 77379-3722
14	SAGOTX INVESTMENT LLC	143 MANOR LAKE ESTATES DR, SPRING, TX 77379-3722
15	AG MEMBER GROUP LLC	6807 VANESSA SPRING LN, SPRING, TX 77389-1521
16	BENCHMARK ACQUISITIONS LLC	13141 NW FWY, HOUSTON, TX 77040-6307
17	GREATER GREENSPOINT	450 GEARS RD STE 200, HOUSTON, TX 77067
18	RANKIN STORAGE OWNER 18 TX LP	50 ROCKEFELLER PLZ, NEW YORK, NY 10020-1605
19	NORTHBOROUGH MUD	ADDRESS UNKNOWN
20	PATEL VIJAY N	9431 LOCHFLORA DR, SPRING, TX 77379-5601
21	TEXAS DEPARTMENT OF TRANSPORTATION	PO BOX 1386, HOUSTON, TX 77251-1386
22	YES PREP PUBLIC SCHOOLS INC	5515 S LOOP EAST STE B, HOUSTON, TX 77033-1603
23	AUGUSTA NORTH HOUSTON LLC	2929 W WAPOOT ST, MERIDIAN, ID 83646-5670
24	CITY OF HOUSTON	PO BOX 1562, HOUSTON, TX 77251-1562

25	ELLA CAPITAL INVESTMENTS LLC	25420 KUYKENDAHL RD STE E300, TOMBALL, TX 77375-3430
26	TIMBERS2020 LLC	143 MANOR LAKE ESTATES DR, SPRING, TX 77379-3722
27	CATHEDRAL OF FAITH BAPTIST CHURCH	PO BOX 692370, HOUSTON, TX 77269-2370

AG MEMBER GROUP LLC
6807 VANESSA SPRING LN
SPRING TX 77389-1521

AUGUSTA NORTH HOUSTON LLC
2929 W WAPOOT ST
MERIDIAN ID 83646

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HOUSTON TX 77269-2370

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HOUSTON TX 77011-4645

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PO BOX 1386
HOUSTON TX 77251-1386

TIMBERS2020 LLC
143 MANOR LAKE ESTATES DR
SPRING TX 77379-3722

YES PREP PUBLIC SCHOOLS INC
5515 S LOOP EAST STE B
HOUSTON TX 77033-1603

Comisión de Calidad Ambiental del Estado de Texas

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

PERMISO NO. WQoo_____

SOLICITUD. Distrito de Servicios Públicos Municipales No. 200 del Condado de Harris, 1300 Post Oak Boulevard, Suite 2400, Houston, Texas 77056, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0012294001 (EPA I.D. No. TX0085413) 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 diario de 1,900,000 galones por día. La planta está ubicada 13050 Stonefield Drive, cerca de la ciudad de Houston, en el condado de Harris, Texas 77014. La ruta de descarga es del sitio de la planta a una zanja del Distrito de Control de Inundaciones del Condado de Harris, de allí a Greens Bayou Above Tidal. La TCEQ recibió esta solicitud el 6 de junio de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en Biblioteca sucursal de Aldine, 11331 Airline Drive, Houston, en el condado de Harris, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud, incluidas todas las actualizaciones y los avisos asociados están disponibles electrónicamente en la siguiente página web:
https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications
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=-95.430404,29.972868&level=18

[Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does ot meet the above description, do not include the sentence: El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es

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

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

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

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

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

retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía http://www14.tceq.texas.gov/epic/eComment/ o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener más información del Distrito de Servicios Públicos Municipales No. 200 del Condado de Harris en la dirección indicada anteriormente o llamando al Sr. Jonathan Nguyen, Quiddity Engineering, al 512-685-5156.

Fecha de emisión _____ *[Date notice issued]*