# 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

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# Portada de Paquete Administrativo

**Este archivo contiene los siguientes documentos:**

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

## Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how you will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements. After filling in the information for your facility delete these instructions.

If you are subject to the alternative language notice requirements in 30 TAC Section 39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS**
**Enter 'INDUSTRIAL' or 'DOMESTIC' here WASTEWATER/STORMWATER**
*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.*

Chimney Hill Municipal Utility District (CN601359292) operates Chimney Hill Municipal Utility District Wastewater Treatment Facility (RN 102834272), a wastewater treatment plan. The facility is located at 13450 Traders Village Drive, in Houston, Harris County, Texas 77041. This application is for a major amendment to modify the Total Copper Discharge Limitations.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), and ammonia nitrogen ($NH_3$-N). Domestic Wastewater is treated by an activated sludge process plant and the treatment units include a fine screen, aeration basins, clarifiers, aerobic digesters, and chlorine contact basin.

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

**AGUAS RESIDUALES** Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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

Chimney Hill Municipal Utility District (CN601359292) opera Chimney Hill Municipal Utility District Wastewater Treatment Facility (RN 102834272), una planta de tratamiento de aguas residuales. La instalación estará ubicada en 13450 Traders Village Drive, en Houston, Condado de Harris, Texas 77041. Esta solicitud es para una enmienda importante para modificar las limitaciones de descarga total de cobre.

Se espera que las descargas de la instalación contengan bioquímica de oxígeno carbonoso (CBOD5), solidos suspendidos totales (TSS), y nitrógeno amoniacal (NH3-N). Las aguas residuales domesticas. estará tratado por un modo de mezcla completa del proceso de lodos activados, que incluye cribado, balsas de aireación, clarificadores, digestores aerobios y desinfección.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

**PERMIT NO. WQ0012304001**

**APPLICATION.** Chimney Hill Municipal Utility District, 9 Greenway Plaza, Suite 1000, Houston, Texas 77046, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0012304001 (EPA I.D. No. TX0085588) to authorize the modification of the Total Copper Limit in the final effluent limitations. The domestic wastewater treatment facility is located at 13450 Traders Village Drive, Houston, in Harris County, Texas 77041. The discharge route is from the plant site to a Harris County Flood Control District ditch; thence to Horsepen Creek; thence to Langham Creek; thence to Bear Creek; thence to South Mayde Creek; thence to Buffalo Bayou Above Tidal. TCEQ received this application on October 7, 2025. The permit application will be available for viewing and copying at Fairbanks Public Library, 7122 Gessner Road, 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=-95.614444,29.891944&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 Chimney Hill Municipal Utility District at the address stated above or by calling Mr. William D. Yale III, Attorney for the District, Coats Rose, P.C., at 713-651-0111.

Issuance Date: October 30, 2025

# Comisión de Calidad Ambiental del Estado de Texas

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

**PERMISO NO. WQ0012304001**

**SOLICITUD.** Chimney Hill Municipal Utility District, 9 Greenway Plaza, Suite 1000, Houston, Texas 77046, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0012304001 (EPA I.D. No. TX0085588) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la modificación del Límite Total de Cobre en las limitaciones finales del efluente. La planta está ubicada 13450 Traders Village Drive, Houston, en el Condado de Harris, Texas 77041. La ruta de descarga es del sitio de la planta a Zanja del Distrito de Control de Inundaciones del Condado de Harris; de allí a Horsepen Creek; de allí a Langham Creek; de allí a Bear Creek; de allí a South Mayde Creek; de allí a Buffalo Bayou Above Tidal. La TCEQ recibió esta solicitud el October 7, 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Biblioteca Pública de Fairbanks, 7122 Gessner Road, Houston, in Harris County, 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=-95.614444,29.891944&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 información adicional del Chimney Hill Municipal Utility District a la dirección indicada arriba o llamando a Mr. William D. Yale III al 713-651-0111.

Fecha de emisión: 30 de octubre de 2025

A&S Engineers, Inc.

September 26, 2025

Texas Commission on Environmental Quality
Applications Review and Processing Team (MC 148)
12100 Park 35 Circle
Austin, Texas 78753

Re: Domestic Wastewater Discharge Permit Major Amendment
Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
Chimney Hill Municipal Utility District
A & S Project No. 092008.07

Ladies and Gentlemen:

Chimney Hill Municipal Utility District holds a TCEQ permit for a municipal wastewater treatment plant, Permit No. WQ0012304-001 that is due to expire on September 22, 2027. Attached is a Permit Major Amendment Application for the wastewater treatment plant.

Enclosed are one (1) original copy of the Application. The fee is being sent under separate cover to the Revenues Section (MC 214).

If you have any questions or comments, please feel free to call me at (713) 942-2700.

Sincerely,

Jonathan Liu

Jonathan D. Liu, P.E.
Project Manager

Enclosures: TPDES Permit Major Amendment Application Package for Chimney Hill MUD

cc w/enclosures: Mr. William D. Yale III, Coats Rose, P.C.
Mr. David Rowe, Water District Management Company
TCEQ-Houston



10377 Stella Link Road | Houston, TX 77025 | 713 / 942 / 2700 | www.as-engineers.com

# CHIMNEY HILL
# MUNICIPAL UTILITY DISTRICT

## TPDES PERMIT MAJOR AMENDMENT
## DOMESTIC WASTEWATER DISCHARGE

# 1.20 MGD WWTP

## September 2025

## TPDES PERMIT NO. WQ0012304-001
## US EPA PERMIT NO. TX0085588

A&S Engineers, Inc.

10377 Stella Link Rd
Houston, TX 77025
Texas Engineering Registration No. F-000802
*Phone: 713-942-2700, Fax: 713-942-2799*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

**Complete and submit this checklist with the application.**

APPLICANT NAME: Chimney Hill Municipal Utility District

PERMIT NUMBER (If new, leave blank): WQ0012304-001

**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 | ☐ | ☒ |
| Summary of Application (PLS) | ☒ | ☐ | Flow Diagram | ☒ | ☐ |
| Public Involvement Plan Form | ☒ | ☐ | Site Drawing | ☒ | ☐ |
| Technical Report 1.0 | ☒ | ☐ | Original Photographs | ☒ | ☐ |
| Technical Report 1.1 | ☒ | ☐ | Design Calculations | ☐ | ☒ |
| Worksheet 2.0 | ☒ | ☐ | Solids Management Plan | ☒ | ☐ |
| Worksheet 2.1 | ☐ | ☒ | Water Balance | ☐ | ☒ |
| Worksheet 3.0 | ☐ | ☒ | | | |
| 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: 3092

Check/Money Order Amount: 2,050

Name Printed on Check: A&S Engineers, Inc.

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 Water 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: The District is proposing a modification of the Total Copper Limit in the Final Effluent Limitations. A copy of the WER study is attached in Exhibit No. 21. An approval letter for a WER study should be forthcoming from the EPA directly submitted to TCEQ.

**f. For existing permits**:

Permit Number: WQ0012304-001

EPA I.D. (TPDES only): TX 0085588

Expiration Date: September 22, 2027

## 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?

Chimney Hill Municipal Utility District

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

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

CN: 601359292

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: W. Jay Szinyei

Title: President, Board of Directors 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?

Click to enter text.

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

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

CN: Click to enter text.

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

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

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

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

**C. Core Data Form**

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. **Attachment: Reference Exhibit No. 14**

## 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: William D. Yale III

Title: Attorney for the District Credential: Attorney at Law

Organization Name: Coats Rose, P.C.

Mailing Address: 9 Greenway Plaza, Suite 1000 City, State, Zip Code: Houston, TX 77046

Phone No.: (713) 651-0111 E-mail Address: wyale@coatsrose.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

**A.** Prefix: Mr. Last Name, First Name: Jonathan Liu

Title: Engineer for the District Credential: P.E.

Organization Name: A&S Engineers, Inc.

Mailing Address: 10377 Stella Link Road City, State, Zip Code: Houston, TX 77025

Phone No.: 713-942-2700 E-mail Address: jdl@as-engineers.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.

**B.** Prefix: Mr. Last Name, First Name: Justin Edwards

Title: Engineer for the District Credential: P.E.

Organization Name: A&S Engineers, Inc.

Mailing Address: 10377 Stella Link Road City, State, Zip Code: Houston, TX 77025

Phone No.: 713-942-2700 E-mail Address: jhe@as-engineers.com

**B.** Prefix: Mr. Last Name, First Name: William D. Yale III

Title: Attorney for the District Credential: Attorney at Law

Organization Name: Coats Rose, P.C.

Mailing Address: 9 Greenway Plaza, Suite 1000 City, State, Zip Code: Houston, TX 77046

Phone No.: (713) 651-0111 E-mail Address: wyale@coatsrose.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: Ms. Last Name, First Name: Lori Buckner

Title: Bookkeeper Credential: Click to enter text.

Organization Name: Myrtle Cruz, Inc.

Mailing Address: 3401 Louisiana St. Suite 400 City, State, Zip Code: Houston, TX 77002

Phone No.: (713)7591368 E-mail Address: lori_buckner@mcruz.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: David Rowe

Title: Operator for the District Credential: Click to enter text.

Organization Name: Water District Management

Mailing Address: P.O. Box 579 City, State, Zip Code: Spring, TX, 77383

Phone No.: (281) 376-8802 E-mail Address: drowe@wdmtexas.com

## Section 8. Public Notice Information (Instructions Page 27)

**A. Individual Publishing the Notices**

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

Title: Engineer for the District Credential: P.E.

Organization Name: A&S Engineers, Inc.

Mailing Address: 10377 Stella Link Road City, State, Zip Code: Houston, TX, 77025

Phone No.: 723-942-2700 E-mail Address: jdl@as-engineers.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: William D. Yale III

Title: **Attorney for the District** Credential: Click to enter text.

Organization Name: Coats Rose, P.C.

Mailing Address: 9 Greenway Plaza, Suite 1000 City, State, Zip Code: Click to enter text.

Phone No.: (713) 651-0111 E-mail Address: wyale@coatsrose.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: Harris County Public Library – Fairbanks Branch

Location within the building: Click to enter text.

Physical Address of Building: 7122 Gessner Road

City: Houston County: Harris County

Contact (Last Name, First Name): Brinkley, Melinda

Phone No.: (832)927-7890 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. Summary of Application in Plain Language Template**

Complete the F. Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS, and include as an attachment.

**Attachment:** Exhibit No. 15

**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:** Exhibit No. 16

## 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** 102834272

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):

Chimney Hill Municipal Utility District Wastewater Treatment Plant

**C.** Owner of treatment facility: Chimney Hill Municipal Utility District

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: Chimney Hill Municipal Utility District

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

Organization Name: Click to enter text.

Mailing Address: c/o Coats Rose, P.C. 9 Greenway Plaza, Suite 1000 City, State, Zip Code: Houston, TX, 77046

Phone No.: 713-651-0111 E-mail Address: wyale@coatsrose.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:** Click to enter text.

**E.** Owner of effluent disposal site:

Prefix: N/A Last Name, First Name: Click to enter text.

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

Organization Name: Click to enter text.

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

Phone No.: Click to enter text. E-mail Address: Click to enter text.

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

**Attachment:** Click to enter text.

**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: Click to enter text.

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

Organization Name: Click to enter text.

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

Phone No.: Click to enter text. E-mail Address: Click to enter text.

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

**Attachment:** Click to enter text.

## Section 10. TPDES Discharge Information (Instructions Page 31)

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

☒ Yes ☐ No

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

Click to enter text.

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

☒ Yes ☐ No

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

To Harris County Flood Control District ditch U106-05-00, thence to Horsepen Creek, thence to Langham Creek, thence to Bear Creek, thence to South Mayde Creek, thence to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin

City nearest the outfall(s): Houston

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

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

☒ Yes ☐ No

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

☒ Authorization granted ☐ Authorization pending

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

**Attachment:** Click to enter text.

**D.** For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: 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.

Click to enter text.

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

☐ Yes ☒ No

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

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

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click to enter text.

**E.** Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Click to enter text.

Amount past due: Click to enter text.

## Section 13. Attachments (Instructions Page 33)

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

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

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

- 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: Click to enter text.

## Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0012304-001

Applicant: Chimney Hill Municipal Utility District

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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

Signatory name (typed or printed):

Signatory title:

Signature: _____ Date: 9/10/2025

(Use blue ink)

Subscribed and Sworn to before me by the said W. Jay Szinyei

on this 10th day of September, 20 25.

My commission expires on the 28th day of June, 20 27.

Linda C. Sparks

Notary Public

[SEAL]

LINDA C. SPARKS
Notary Public, State of Texas
Comm. Expires 06-28-2027
Notary ID 130262749

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 that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).

**D.** Provide the source of the landowners' names and mailing addresses: HCAD

**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):

Click to enter text.

## 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:** Exhibit No. 20

# DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

Core Data Form (TCEQ Form No. 10400) ☒ Yes
*(Required for all application types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)*

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

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

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

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

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

**Things to Know:**

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

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

Electronic Application Submittal ☒ Yes
*(See application submittal requirements on page 23 of the instructions.)*

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

Summary of Application (in Plain Language) ☒ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

## Section 1. Permitted or Proposed Flows (Instructions Page 42)

**A. Existing/Interim I Phase**

Design Flow (MGD): 1.2

2-Hr Peak Flow (MGD): 4.8

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

**B. Interim II Phase**

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD): N/A

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

**C. Final Phase**

Design Flow (MGD): 1.2

2-Hr Peak Flow (MGD): 4.8

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

**D. Current Operating Phase**

Provide the startup date of the facility: 11/24/2004

## Section 2. Treatment Process (Instructions Page 42)

**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**.

| |
|---|
| Activated sludge system, complete mix mode. Process units include screening, aeration, clarification, aerobic digestion, gravity thickener, disinfection, effluent metering, off-site disposal of solids. |

### 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) |
|---|---|---|
| Ref Exhibit 8 | | |
| | | |
| | | |
| | | |
| | | |
| | | |

### C. Process Flow Diagram

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

**Attachment**: Ref Exhibit 7

## Section 3. Site Information and Drawing (Instructions Page 43)

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

- Latitude: 29.89101 N
- Longitude: -95.61022 W

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

- Latitude: Click to enter text.
- Longitude: Click to enter text.

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**: Ref. Exhibits 11 and 12

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

The plant serves the Chimney Hill Municipal Utility District and is mostly comprised of residential customers and some commercial customers.

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 |
|---|---|---|---|
| Chimney Hill MUD | Chimney Hill MUD | Publicly Owned | 5,445 |
| | | Choose an item. | |
| | | Choose an item. | |
| | | Choose an item. | |

## Section 4. Unbuilt Phases (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

## Section 5. Closure Plans (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

## Section 6. Permit Specific Requirements (Instructions Page 44)

**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: 6/12/2002

Provide information, including dates, on any actions taken to meet a *requirement or provision* pertaining to the submission of a summary transmittal letter. **Provide a copy of an approval letter from the TCEQ, if applicable**.

N/A

### B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

N/A

## 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*.

Click to enter text.

## D. Grit and grease treatment

### *1. Acceptance of grit and grease waste*

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

☐ Yes ☒ No

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

### *2. Grit and grease processing*

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

Click to enter text.

### *3. Grit disposal*

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

☐ Yes ☐ No

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

Describe the method of grit disposal.

Click to enter text.

### 4. *Grease and decanted liquid disposal*

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

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

Click to enter text.

## E. Stormwater management

### 1. *Applicability*

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

### 2. *MSGP coverage*

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

☒ Yes ☐ No

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

TXR05 Q381 or TXRNE Click to enter text.

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

☐ Yes ☐ No

### 3. *Conditional exclusion*

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

☐ Yes ☒ No

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

Click to enter text.

4. ***Existing coverage in individual permit***

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

☐ Yes ☒ No

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

Click to enter text.

5. ***Zero stormwater discharge***

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

☐ Yes ☒ No

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

Click to enter text.

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

6. ***Request for coverage in individual permit***

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

☐ Yes ☒ No

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

intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

Click to enter text.

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

## F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
Click to enter text.

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

### *1. Acceptance of sludge from other WWTPs*

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

☐ Yes ☒ No

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

Click to enter text.

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

### *2. Acceptance of septic waste*

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Click to enter text.

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

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

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

☐ Yes ☒ No

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

Click to enter text.

## Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 49)

Is the facility in operation?

☒ Yes ☐ No

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

**If yes**, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). **W*ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3). 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 | 2.6 | 2.6 | 1 | Grab | 6/05/2025 07:02 |
| Total Suspended Solids, mg/l | 1.6 | 1.6 | 1 | Grab | 6/05/2025 11:03 |
| Ammonia Nitrogen, mg/l | <0.1 | <0.1 | 1 | Grab | 06/06/2025 08:15 |
| Nitrate Nitrogen, mg/l | 19.8 | 19.8 | 1 | Grab | 06/04/2025 16:57 |
| Total Kjeldahl Nitrogen, mg/l | 2.2 | 2.2 | 1 | Grab | 06/05/2025 10:45 |
| Sulfate, mg/l | 68.9 | 68.9 | 1 | Grab | 06/04/2025 16:57 |
| Chloride, mg/l | 118 | 118 | 1 | Grab | 06/06/2025 16:57 |
| Total Phosphorus, mg/l | 5.03 | 5.03 | 1 | Grab | 06/05/2025 14:14 |
| pH, standard units | 7.4 | 7.4 | 1 | Grab | 06/03/2025 08:45 |
| Dissolved Oxygen*, mg/l | 6.6 | 6.6 | 1 | Grab | 06/03/2025 8:45 |
| Chlorine Residual, mg/l | <0.1 | <0.1 | 1 | Grab | 06/03/2025 09:06 |
| *E.coli* (CFU/100ml) freshwater | 34 | 34 | 1 | Grab | 06/03/2025 16:37 |
| Entercocci (CFU/100ml) saltwater | N/A | N/A | N/A | N/A | N/A |
| Total Dissolved Solids, mg/l | 810 | 810 | 1 | Grab | 06/10/2025 13:03 |
| Electrical Conductivity, µmohs/cm, † | 852 | 852 | 1 | Grab | 06/20/2025 07:52 |
| Oil & Grease, mg/l | <5.1 | <5.1 | 1 | Grab | 06/10/2025 09:30 |
| Alkalinity ($CaCO_3$)*, mg/l | 44 | 44 | 1 | Grab | 06/11/2025 10:59 |

*TPDES permits only
†TLAP permits only

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

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| Total Suspended Solids, mg/l | | | | | |
| Total Dissolved Solids, mg/l | | | | | |

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| pH, standard units | | | | | |
| Fluoride, mg/l | | | | | |
| Aluminum, mg/l | | | | | |
| Alkalinity ($CaCO_3$), mg/l | | | | | |

## Section 8. Facility Operator (Instructions Page 49)

Facility Operator Name: Water District Management

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

Facility Operator's License Number: Certificate No. WW0059829

## Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 50)

**A. WWTP's Sewage Sludge or 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 Sewage Sludge or Biosolids Treatment Process**

Check all that apply. See instructions for guidance.

- ☒ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)

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

☐ Sludge Lagoon

☐ Temporary Storage (< 2 years)

☐ Long Term Storage (>= 2 years)

☐ Methane or Biogas Recovery

☐ Other Treatment Process: Click to enter text.

## C. Sewage Sludge or Biosolids Management

Provide information on the *intended* sewage sludge or biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all sewage sludge or 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 |
|---|---|---|---|---|---|
| Other | Off-site Third-Party Handler or Preparer | Bulk | | N/A: Transported to another facility for further processing | N/A: Trasporrted to another facility for further processing |
| Choose an item. | Choose an item. | Choose an item. | | Choose an item. | Choose an item. |
| Choose an item. | Choose an item. | Choose an item. | | Choose an item. | Choose an item. |

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

## D. Disposal site

Disposal site name: New Earth - Katy, El Celoso Ranch

TCEQ permit or registration number: 42041, WQ0004518000

County where disposal site is located: Harris County

## E. Transportation method

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

Name of the hauler: Trinity Wastewater Solutions, K-3 BMI

Hauler registration number: 24738, 22430

Sludge is transported as a:

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

## Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 52)

### A. Beneficial use authorization

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

☐ Yes ☒ No

**If yes**, are you requesting to continue this authorization to land apply biosolids 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 Biosolids | ☐ 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**: Click to enter text.
- USDA Natural Resources Conservation Service Soil Map:

  **Attachment**: Click to enter text.
- Federal Emergency Management Map:

**Attachment**: Click to enter text.

- Site map:

  **Attachment**: Click to enter text.

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands
- ☐ Located less than 60 meters from a fault
- ☐ None of the above

**Attachment**: Click to enter text.

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

Click to enter text.

**B. Temporary storage information**

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

Nitrate Nitrogen, mg/kg: Click to enter text.

Total Kjeldahl Nitrogen, mg/kg: Click to enter text.

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: Click to enter text.

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

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

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

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

**C. Liner information**

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

☐ Yes ☐ No

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

Click to enter text.

**D. Site development plan**

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

Click to enter text.

Attach the following documents to the application.

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

  **Attachment**: Click to enter text.
- Copy of the closure plan

  **Attachment**: Click to enter text.
- Copy of deed recordation for the site

  **Attachment**: Click to enter text.
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  **Attachment**: Click to enter text.
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  **Attachment**: Click to enter text.
- Procedures to prevent the occurrence of nuisance conditions

**Attachment**: Click to enter text.

### E. Groundwater monitoring

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

☐ Yes ☐ No

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

**Attachment:** Click to enter text.

## Section 12. Authorizations/Compliance/Enforcement (Instructions Page 54)

### 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:

Click to enter text.

### 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:

Click to enter text.

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

**A. RCRA hazardous wastes**

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

☐ Yes ☒ No

**B. Remediation activity wastewater**

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

☐ Yes ☒ No

**C. Details about wastes received**

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

**Attachment:** Click to enter text.

## Section 14. Laboratory Accreditation (Instructions Page 55)

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: W. Jay Szinyei

Title: Board President

Signature: _____

Date: 09/10/2025

# 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 56)

### 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.

Modification of Final Phase effluence copper limit concentration maximum based on the site specific criteria. See Exhibit No. 21 for WER Study. An approval letter for a WER study should be forthcoming from the EPA directly submitted to TCEQ.

### 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: Click to enter text.

**If yes**, attach correspondence from the city.

**Attachment:** Click to enter text.

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:** Click to enter text.

#### 2. *Utility CCN areas*

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

☐ Yes ☒ No

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

**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**: Click to enter text.

*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**: Exhibit No. 22

**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: Applicant not requesting an increase in capacity.

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:** Click to enter text.

## Section 2. Proposed Organic Loading (Instructions Page 58)

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): 1.2 MGD

Average Influent Organic Strength or $BOD_5$ Concentration in mg/l: 200

Average Influent Loading (lbs/day = total average flow X average $BOD_5$ conc. X 8.34): 2001.6

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

| |
|---|
| Operator 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 | | |
| Subdivision | | |
| Trailer park – transient | | |
| Mobile home park | | |
| School with cafeteria and showers | | |
| School with cafeteria, no showers | | |
| Recreational park, overnight use | | |
| Recreational park, day use | | |
| Office building or factory | | |
| Motel | | |
| Restaurant | | |
| Hospital | | |
| Nursing home | | |
| Other | | |
| TOTAL FLOW from all sources | | |
| AVERAGE $BOD_5$ from all sources | | |

## Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 58)

### A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 7

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4

Other: Click to enter text.

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

Biochemical Oxygen Demand (5-day), mg/l: Click to enter text.

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: Click to enter text.

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

Dissolved Oxygen, mg/l: Click to enter text.

Other: Click to enter text.

**C. Final Phase Design Effluent Quality**

Biochemical Oxygen Demand (5-day), mg/l: 7

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 2

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4

Other: Total Copper: Report

**D. Disinfection Method**

Identify the proposed method of disinfection.

☒ Chlorine: 2.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: Click to enter text.

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

☐ Other: Click to enter text.

## Section 4. Design Calculations (Instructions Page 58)

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

**Attachment**: N/A

## Section 5. Facility Site (Instructions Page 59)

**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.

Click to enter text.

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

| FEMA GIS data |
|---|
| |

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

**If no,** provide the approximate date you anticipate submitting your application to the Corps: Click to enter text.

**B. Wind rose**

Attach a wind rose: Exhibit No. 23

## Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 59)

**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)**: Click to enter text.

**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)**: Click to enter text.

## Section 7. Sewage Sludge Solids Management Plan (Instructions Page 60)

Attach a solids management plan to the application.

**Attachment:** N/A no change

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 63)

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: Click to enter text.

Distance and direction to the intake: Click to enter text.

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

**Attachment**: Click to enter text.

## Section 2. Discharge into Tidally Affected Waters (Instructions Page 63)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

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

### A. Receiving water outfall

Width of the receiving water at the outfall, in feet: Click to enter text.

### B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

Click to enter text.

### C. Sea grasses

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

☐ Yes ☐ No

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

Click to enter text.

## Section 3. Classified Segments (Instructions Page 63)

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 63)

Name of the immediate receiving waters: HCFCD Unit No. U106-05-00

### 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.

Horsepen Creek

### 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.

Plant effluent is discharged into a man-made HCFCD ditch that flows into Horsepen Creek; thence into Langham Creek; thence to Bear Creek. The downstream creeks are part of the HCFCD drainage/detention system.

### E. Normal dry weather characteristics

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

The HCFCD ditch experiences flow from urban runoff and upstream WWTP discharges. Dry weather flow is minimal and does not constitute significant events. No odor has been detected.

Date and time of observation: 9/10/25 5pm

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

## Section 5. General Characteristics of the Waterbody (Instructions Page 65)

### 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
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☒ Other(s), specify: Urban Stormwater

**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 76)

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

Grab ☒ Composite ☒

Date and time sample(s) collected: 6/3/25 900

### *Table 4.0(1) – Toxics Analysis*

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---|---|---|---|---|
| Acrylonitrile | 17.0 | 17.0 | 1 | 50 |
| Aldrin | <0.0000182 | <0.0000182 | 1 | 0.01 |
| Aluminum | 10.5 | 10.5 | 1 | 2.5 |
| Anthracene | <0.0939 | <0.0939 | 1 | 10 |
| Antimony | <2 | <2 | 1 | 5 |
| Arsenic | 1.43 | 1.43 | 1 | 0.5 |
| Barium | 54 | 54 | 1 | 3 |
| Benzene | <10 | <10 | 1 | 10 |
| Benzidine | <0.447 | <0.447 | 1 | 50 |
| Benzo(a)anthracene | <0.0822 | <0.0822 | 1 | 5 |
| Benzo(a)pyrene | <0.0701 | <0.0701 | 1 | 5 |
| Bis(2-chloroethyl)ether | <0.215 | <0.215 | 1 | 10 |
| Bis(2-ethylhexyl)phthalate | <1.43 | <1.43 | 1 | 10 |
| Bromodichloromethane | <10 | <10 | 1 | 10 |
| Bromoform | <10 | <10 | 1 | 10 |
| Cadmium | <1 | <1 | 1 | 1 |
| Carbon Tetrachloride | <2 | <2 | 1 | 2 |
| Carbaryl | <1.85 | <1.85 | 1 | 5 |
| Chlordane* | <0.000224 | <0.000224 | 1 | 0.2 |
| Chlorobenzene | <10 | <10 | 1 | 10 |
| Chlorodibromomethane | <10 | <10 | 1 | 10 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---|---|---|---|---|
| Chloroform | 31 | 31 | 1 | 10 |
| Chlorpyrifos | <0.05 | <0.05 | 1 | 0.05 |
| Chromium (Total) | <1 | <1 | 1 | 3 |
| Chromium (Tri) **(*1)** | <3 | <3 | 1 | N/A |
| Chromium (Hex) | <3 | <3 | 1 | 3 |
| Copper | 4.39 | 4.39 | 1 | 2 |
| Chrysene | <0.0817 | <0.0817 | 1 | 5 |
| p-Chloro-m-Cresol | <0.104 | <0.104 | 1 | 10 |
| 4,6-Dinitro-o-Cresol | <1.00 | <1.00 | 1 | 50 |
| p-Cresol | <0.139 | <0.139 | 1 | 10 |
| Cyanide **(*2)** | 6.64 | 6.64 | 1 | 10 |
| 4,4'- DDD | <0.0000205 | <0.0000205 | 1 | 0.1 |
| 4,4'- DDE | <0.0000185 | <0.0000185 | 1 | 0.1 |
| 4,4'- DDT | <0.0000206 | <0.0000206 | 1 | 0.02 |
| 2,4-D | <0.0000540 | <0.0000540 | 1 | 0.7 |
| Demeton (O and S) | <0.0168 | <0.0168 | 1 | 0.20 |
| Diazinon | <0.0149 | <0.0149 | 1 | 0.5/0.1 |
| 1,2-Dibromoethane | <10 | <10 | 1 | 10 |
| m-Dichlorobenzene | <0.0942 | <0.0942 | 1 | 10 |
| o-Dichlorobenzene | <0.102 | <0.102 | 1 | 10 |
| p-Dichlorobenzene | <0.0780 | <0.0780 | 1 | 10 |
| 3,3'-Dichlorobenzidine | <0.183 | <0.183 | 1 | 5 |
| 1,2-Dichloroethane | <10 | <10 | 1 | 10 |
| 1,1-Dichloroethylene | <10 | <10 | 1 | 10 |
| Dichloromethane | <10 | <10 | 1 | 20 |
| 1,2-Dichloropropane | <10 | <10 | 1 | 10 |
| 1,3-Dichloropropene | <10 | <10 | 1 | 10 |
| Dicofol | <0.0572 | <0.0572 | 1 | 1 |
| Dieldrin | <0.0000199 | <0.0000199 | 1 | 0.02 |
| 2,4-Dimethylphenol | <0.192 | <0.192 | 1 | 10 |
| Di-n-Butyl Phthalate | <1.43 | <1.43 | 1 | 10 |
| Diuron | <0.0514 | <0.0514 | 1 | 0.09 |
| Endosulfan I (alpha) | <0.0000213 | <0.0000213 | 1 | 0.01 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---|---|---|---|---|
| Endosulfan II (beta) | <0.0000203 | <0.0000203 | 1 | 0.02 |
| Endosulfan Sulfate | <0.0000175 | <0.0000175 | 1 | 0.1 |
| Endrin | <0.0000191 | <0.0000191 | 1 | 0.02 |
| Epichlorohydrin | | | | --- |
| Ethylbenzene | <10 | <10 | 1 | 10 |
| Ethylene Glycol | | | | --- |
| Fluoride | 149 | 149 | 1 | 500 |
| Guthion | <0.0162 | <0.0162 | 1 | 0.1 |
| Heptachlor | <0.0000319 | <0.0000319 | 1 | 0.01 |
| Heptachlor Epoxide | <0.0000209 | <0.0000209 | 1 | 0.01 |
| Hexachlorobenzene | <0.0976 | <0.0976 | 1 | 5 |
| Hexachlorobutadiene | <0.103 | <0.103 | 1 | 10 |
| Hexachlorocyclohexane (alpha) | <0.0000183 | <0.0000183 | 1 | 0.05 |
| Hexachlorocyclohexane (beta) | <0.0000198 | <0.0000198 | 1 | 0.05 |
| gamma-Hexachlorocyclohexane (Lindane) | <0.0000195 | <0.0000195 | 1 | 0.05 |
| Hexachlorocyclopentadiene | <0.219 | <0.219 | 1 | 10 |
| Hexachloroethane | <0.102 | <0.102 | 1 | 20 |
| Hexachlorophene | <0.000810 | <0.000810 | 1 | 10 |
| 4,4'-Isopropylidenediphenol | <1.0 | <1.0 | 1 | 1 |
| Lead | .573 | .573 | 1 | 0.5 |
| Malathion | <0.0150 | <0.0150 | 1 | 0.1 |
| Mercury | 0.00155 | 0.00155 | 1 | 0.005 |
| Methoxychlor | <0.0000214 | <0.0000214 | 1 | 2 |
| Methyl Ethyl Ketone | <50 | <50 | 1 | 50 |
| Methyl tert-butyl ether | | | | --- |
| Mirex | <0.0000284 | <0.0000284 | 1 | 0.02 |
| Nickel | 2.14 | 2.14 | 1 | 2 |
| Nitrate-Nitrogen | 19.8 | 19.8 | 1 | 100 |
| Nitrobenzene | <0.0737 | <0.0737 | 1 | 10 |
| N-Nitrosodiethylamine | <0.539 | <0.539 | 1 | 20 |
| N-Nitroso-di-n-Butylamine | <20 | <20 | 1 | 20 |
| Nonylphenol | <2500 | <2500 | 1 | 333 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---|---|---|---|---|
| Parathion (ethyl) | <0.0503 | <0.0503 | 1 | 0.1 |
| Pentachlorobenzene | 20.7 | 20.7 | 1 | 20 |
| Pentachlorophenol | <0.199 | <0.199 | 1 | 5 |
| Phenanthrene | <0.134 | <0.134 | 1 | 10 |
| Polychlorinated Biphenyls (PCB's) **(*3)** | NC | | | 0.2 |
| Pyridine | <1.44 | <1.44 | 1 | 20 |
| Selenium | <2 | <2 | 1 | 5 |
| Silver | <0.5 | <0.5 | 1 | 0.5 |
| 1,2,4,5-Tetrachlorobenzene | <20.0 | <20.0 | 1 | 20 |
| 1,1,2,2-Tetrachloroethane | <10.0 | <10.0 | 1 | 10 |
| Tetrachloroethylene | <10.0 | <10.0 | 1 | 10 |
| Thallium | <0.5 | <0.5 | 1 | 0.5 |
| Toluene | <10.0 | <10.0 | 1 | 10 |
| Toxaphene | <0.000387 | <0.000387 | 1 | 0.3 |
| 2,4,5-TP (Silvex) | <0.0000423 | <0.0000423 | 1 | 0.3 |
| Tributyltin (see instructions for explanation) | N/A | N/A | | 0.01 |
| 1,1,1-Trichloroethane | <10.0 | <10.0 | 1 | 10 |
| 1,1,2-Trichloroethane | <10.0 | <10.0 | 1 | 10 |
| Trichloroethylene | <10.0 | <10.0 | 1 | 10 |
| 2,4,5-Trichlorophenol | <0.143 | <0.143 | 1 | 50 |
| TTHM (Total Trihalomethanes) | 39.4 | 39.4 | 1 | 10 |
| Vinyl Chloride | <10.0 | <10.0 | 1 | 10 |
| Zinc | 58 | 58 | 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: 6/3/25 900

### *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 | <2.0 | <2.0 | 1 | 5 |
| Arsenic | 1.43 | 1.43 | 1 | 0.5 |
| Beryllium | <0.5 | <0.5 | 1 | 0.5 |
| Cadmium | <1 | <1 | 1 | 1 |
| Chromium (Total) | <1 | <1 | 1 | 3 |
| Chromium (Hex) | <3 | <3 | 1 | 3 |
| Chromium (Tri) **(*1)** | <3 | <3 | 1 | N/A |
| Copper | 4.39 | 4.39 | 1 | 2 |
| Lead | .573 | .573 | 1 | 0.5 |
| Mercury | 0.00155 | 0.00155 | 1 | 0.005 |
| Nickel | 2.14 | 2.14 | 1 | 2 |
| Selenium | <2 | <2 | 1 | 5 |
| Silver | <0.5 | <0.5 | 1 | 0.5 |
| Thallium | <0.5 | <0.5 | 1 | 0.5 |
| Zinc | 58 | 58 | 1 | 5 |
| Cyanide **(*2)** | 6.64 | 6.64 | 1 | 10 |
| Phenols, Total | <10.0 | <10.0 | 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 | <10.0 | <10.0 | 1 | 50 |
| Acrylonitrile | <50 | <50 | 1 | 50 |
| Benzene | <10.0 | <10.0 | 1 | 10 |
| Bromoform | <10.0 | <10.0 | 1 | 10 |
| Carbon Tetrachloride | <2 | <2 | 1 | 2 |
| Chlorobenzene | <10.0 | <10.0 | 1 | 10 |
| Chlorodibromomethane | <10.0 | 15.6 | 1 | 10 |
| Chloroethane | <50 | <50 | 1 | 50 |
| 2-Chloroethylvinyl Ether | <10.0 | <10.0 | 1 | 10 |
| Chloroform | <10.0 | <10.0 | 1 | 10 |
| Dichlorobromomethane [Bromodichloromethane] | 15.6 | 15.6 | 1 | 10 |
| 1,1-Dichloroethane | <10.0 | <10.0 | 1 | 10 |
| 1,2-Dichloroethane | <10.0 | <10.0 | 1 | 10 |
| 1,1-Dichloroethylene | <10.0 | <10.0 | 1 | 10 |
| 1,2-Dichloropropane | <10.0 | <10.0 | 1 | 10 |
| 1,3-Dichloropropylene [1,3-Dichloropropene] | <10.0 | <10.0 | 1 | 10 |
| 1,2-Trans-Dichloroethylene | <10.0 | <10.0 | 1 | 10 |
| Ethylbenzene | <10.0 | <10.0 | 1 | 10 |
| Methyl Bromide | <50.0 | <50.0 | 1 | 50 |
| Methyl Chloride | <50.0 | <50.0 | 1 | 50 |
| Methylene Chloride | <50.0 | <50.0 | 1 | 20 |
| 1,1,2,2-Tetrachloroethane | <10.0 | <10.0 | 1 | 10 |
| Tetrachloroethylene | <10.0 | <10.0 | 1 | 10 |
| Toluene | <10.0 | <10.0 | 1 | 10 |
| 1,1,1-Trichloroethane | <10.0 | <10.0 | 1 | 10 |
| 1,1,2-Trichloroethane | <10.0 | <10.0 | 1 | 10 |
| Trichloroethylene | <10.0 | <10.0 | 1 | 10 |
| Vinyl Chloride | <10.0 | <10.0 | 1 | 10 |

### *Table 4.0(2)C – Acid Compounds*

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---|---|---|---|---|
| 2-Chlorophenol | <10.0 | <10.0 | 1 | 10 |
| 2,4-Dichlorophenol | <10.0 | <10.0 | 1 | 10 |
| 2,4-Dimethylphenol | <10.0 | <10.0 | 1 | 10 |
| 4,6-Dinitro-o-Cresol | <1.0 | <1.0 | 1 | 50 |
| 2,4-Dinitrophenol | <50.0 | <50.0 | 1 | 50 |
| 2-Nitrophenol | <20.0 | <20.0 | 1 | 20 |
| 4-Nitrophenol | <50.0 | <50.0 | 1 | 50 |
| P-Chloro-m-Cresol | <10.0 | <10.0 | 1 | 10 |
| Pentalchlorophenol | <5.0 | <5.0 | 1 | 5 |
| Phenol | <10.0 | <10.0 | 1 | 10 |
| 2,4,6-Trichlorophenol | <10.0 | <10.0 | 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 | <0.108 | <0.108 | 1 | 10 |
| Acenaphthylene | <0.0998 | <0.0998 | 1 | 10 |
| Anthracene | <0.0939 | <0.0939 | 1 | 10 |
| Benzidine | <50.0 | <50.0 | 1 | 50 |
| Benzo(a)Anthracene | <0.0822 | <0.0822 | 1 | 5 |
| Benzo(a)Pyrene | <0.071 | <0.071 | 1 | 5 |
| 3,4-Benzofluoranthene | <0.0665 | <0.0665 | 1 | 10 |
| Benzo(ghi)Perylene | <0.0346 | <0.0346 | 1 | 20 |
| Benzo(k)Fluoranthene | <0.0473 | <0.0473 | 1 | 5 |
| Bis(2-Chloroethoxy)Methane | <0.0976 | <0.0976 | 1 | 10 |
| Bis(2-Chloroethyl)Ether | <0.215 | <0.215 | 1 | 10 |
| Bis(2-Chloroisopropyl)Ether | <0.215 | <0.215 | 1 | 10 |
| Bis(2-Ethylhexyl)Phthalate | <1.43 | <1.43 | 1 | 10 |
| 4-Bromophenyl Phenyl Ether | <0.10 | <0.10 | 1 | 10 |
| Butyl benzyl Phthalate | <1.43 | <1.43 | 1 | 10 |
| 2-Chloronaphthalene | <0.379 | <0.379 | 1 | 10 |
| 4-Chlorophenyl phenyl ether | <0.131 | <0.131 | 1 | 10 |
| Chrysene | <0.0817 | <0.0817 | 1 | 5 |
| Dibenzo(a,h)Anthracene | <0.0510 | <0.0510 | 1 | 5 |
| 1,2-(o)Dichlorobenzene | <0.0942 | <0.0942 | 1 | 10 |
| 1,3-(m)Dichlorobenzene | <0.102 | <0.102 | 1 | 10 |
| 1,4-(p)Dichlorobenzene | <0.0780 | <0.0780 | 1 | 10 |
| 3,3-Dichlorobenzidine | <0.183 | <0.183 | 1 | 5 |
| Diethyl Phthalate | <1.43 | <1.43 | 1 | 10 |
| Dimethyl Phthalate | <1.43 | <1.43 | 1 | 10 |
| Di-n-Butyl Phthalate | <1.43 | <1.43 | 1 | 10 |
| 2,4-Dinitrotoluene | <0.205 | <0.205 | 1 | 10 |
| 2,6-Dinitrotoluene | <0.116 | <0.116 | 1 | 10 |
| Di-n-Octyl Phthalate | <1.43 | <1.43 | 1 | 10 |
| 1,2-Diphenylhydrazine (as Azo-benzene) | <0.287 | <0.287 | 1 | 20 |
| Fluoranthene | <0.0884 | <0.0884 | 1 | 10 |

| Pollutant | AVG Effluent Conc. (µg/l) | MAX Effluent Conc. (µg/l) | Number of Samples | MAL (µg/l) |
|---|---|---|---|---|
| Fluorene | <0.0950 | <0.0950 | 1 | 10 |
| Hexachlorobenzene | <0.0976 | <0.0976 | 1 | 5 |
| Hexachlorobutadiene | <0.103 | <0.103 | 1 | 10 |
| Hexachlorocyclo-pentadiene | <0.219 | <0.219 | 1 | 10 |
| Hexachloroethane | <0.102 | <0.102 | 1 | 20 |
| Indeno(1,2,3-cd)pyrene | <0.10 | <0.10 | 1 | 5 |
| Isophorone | <0.107 | <0.107 | 1 | 10 |
| Naphthalene | <0.0946 | <0.0946 | 1 | 10 |
| Nitrobenzene | <0.0737 | <0.0737 | 1 | 10 |
| N-Nitrosodimethylamine | <0.539 | <0.539 | 1 | 50 |
| N-Nitrosodi-n-Propylamine | <0.119 | <0.119 | 1 | 20 |
| N-Nitrosodiphenylamine | <0.145 | <0.145 | 1 | 20 |
| Phenanthrene | <0.134 | <0.134 | 1 | 10 |
| Pyrene | <0.0850 | <0.0850 | 1 | 10 |
| 1,2,4-Trichlorobenzene | <0.0767 | <0.0767 | 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 | <0.0000182 | <0.0000182 | 1 | 0.01 |
| alpha-BHC (Hexachlorocyclohexane) | <0.0000183 | <0.0000183 | 1 | 0.05 |
| beta-BHC (Hexachlorocyclohexane) | <0.0000198 | <0.0000198 | 1 | 0.05 |
| gamma-BHC (Hexachlorocyclohexane) | <0.0000195 | <0.0000195 | 1 | 0.05 |
| delta-BHC (Hexachlorocyclohexane) | <0.000010 | <0.000010 | 1 | 0.05 |
| Chlordane | <0.000224 | <0.000224 | 1 | 0.2 |
| 4,4-DDT | <0.0000206 | <0.0000206 | 1 | 0.02 |
| 4,4-DDE | <0.0000185 | <0.0000185 | 1 | 0.1 |
| 4,4,-DDD | <0.0000205 | <0.0000205 | 1 | 0.1 |
| Dieldrin | <0.0000199 | <0.0000199 | 1 | 0.02 |
| Endosulfan I (alpha) | <0.0000213 | <0.0000213 | 1 | 0.01 |
| Endosulfan II (beta) | <0.0000203 | <0.0000203 | 1 | 0.02 |
| Endosulfan Sulfate | <0.0000175 | <0.0000175 | 1 | 0.1 |
| Endrin | <0.0000191 | <0.0000191 | 1 | 0.02 |
| Endrin Aldehyde | <0.0000192 | <0.0000192 | 1 | 0.1 |
| Heptachlor | <0.0000319 | <0.0000319 | 1 | 0.01 |
| Heptachlor Epoxide | <0.0000209 | <0.0000209 | 1 | 0.01 |
| PCB-1242 | <0.0000599 | <0.0000599 | 1 | 0.2 |
| PCB-1254 | <0.0000753 | <0.0000753 | 1 | 0.2 |
| PCB-1221 | <0.0000599 | <0.0000599 | 1 | 0.2 |
| PCB-1232 | <0.0000599 | <0.0000599 | 1 | 0.2 |
| PCB-1248 | <0.0000599 | <0.0000599 | 1 | 0.2 |
| PCB-1260 | <0.0000753 | <0.0000753 | 1 | 0.2 |
| PCB-1016 | <0.0000599 | <0.0000599 | 1 | 0.2 |
| Toxaphene | <0.000387 | <0.000387 | 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 Page 86 of the instructions for further details.

This worksheet is not required minor amendments without renewal.

## Section 1. Required Tests

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: 34

48-hour Acute: 9

## Section 2. Toxicity Reduction Evaluations (TREs)

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

☐ Yes ☒ No

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

Click to enter text.

## Section 3. Summary of WET Tests

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

### *Table 5.0(1) Summary of WET Tests*

| Test Date | Test Species | NOEC Survival | NOEC Sub-lethal |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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# 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 87)

### 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.

Note: The District does not have any industrial discharge into its Sanitary Sewer System. Reference Exhibit 13.

### C. Treatment plant pass through

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

☐ Yes ☒ No

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

Click to enter text.

### D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

**If yes**, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

**If yes**, complete Section 2.c. and 2.d. only, and skip Section 3.

**If no to either question above**, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

## Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 87)

### A. Substantial modifications

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

☐ Yes ☐ No

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

Click to enter text.

### B. Non-substantial modifications

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

☐ Yes ☐ No

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

Click to enter text.

### C. Effluent parameters above the MAL

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

**Table 6.0(1) – Parameters Above the MAL**

| Pollutant | Concentration | MAL | Units | Date |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

### D. Industrial user interruptions

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

☐ Yes ☐ No

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

Click to enter text.

## Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 88)

### A. General information

Company Name: None

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

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

Telephone number: Click to enter text.

Email address: Click to enter text.

### B. Process information

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

| |
|---|
| 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: Subcategories: Click to enter text.

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

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

## F. Industrial user interruptions

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

☐ Yes ☐ No

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

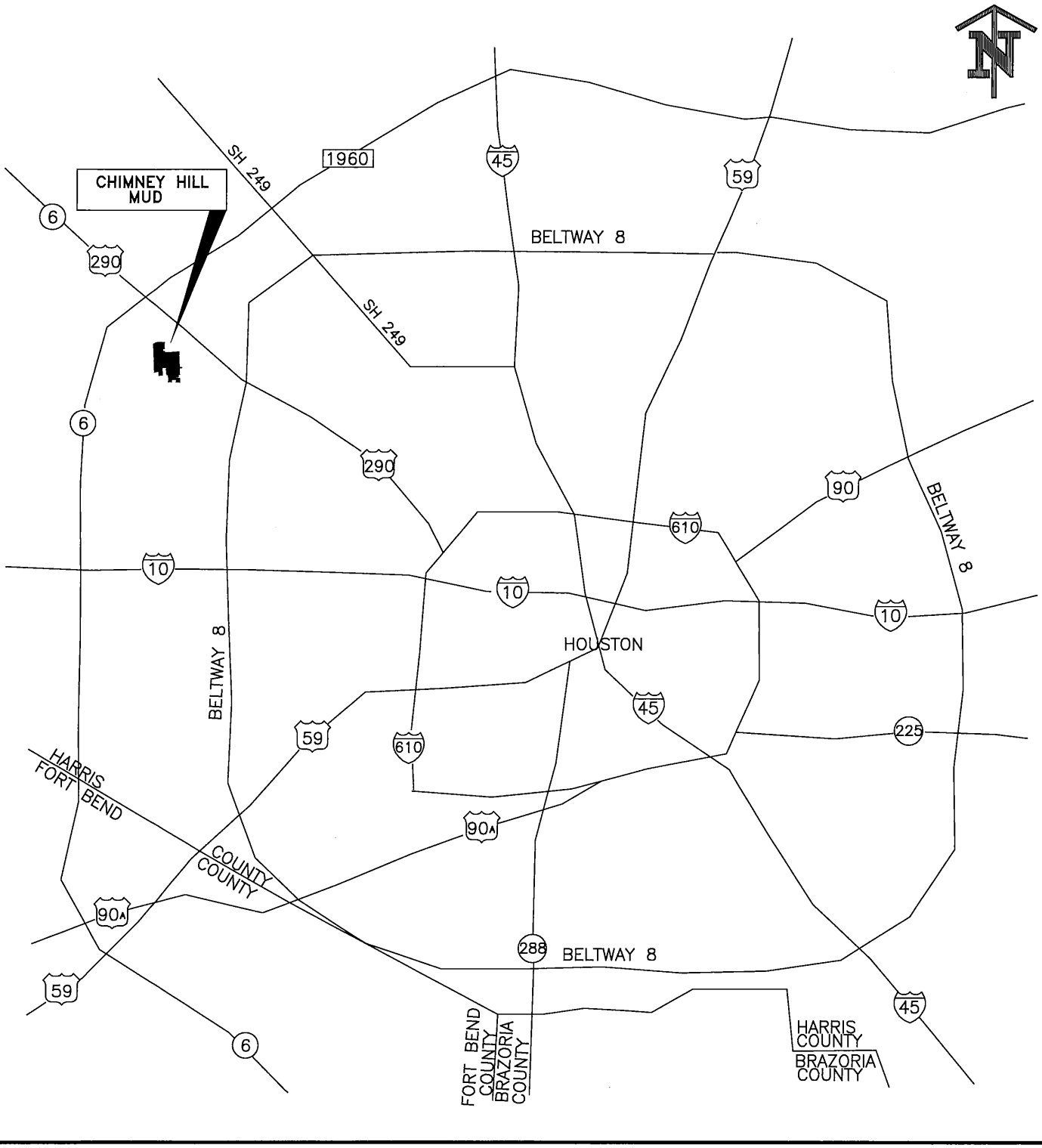
| |
|---|
| N/A |

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 1

## LOCATION MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




KEY MAP: 408L

## EXHIBIT 1

HARRIS COUNTY
CHIMNEY HILL MUD
WASTEWATER TREATMENT PLANT

# LOCATION MAP

(Ref. AR 9C)

PERMIT NO. WQ0012304-001
NPDES PERMIT NO. TX0085588
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT
PROJECT NO. 092008-04

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025
713 / 942 / 2700
Texas Engineering Registration No. F-000802

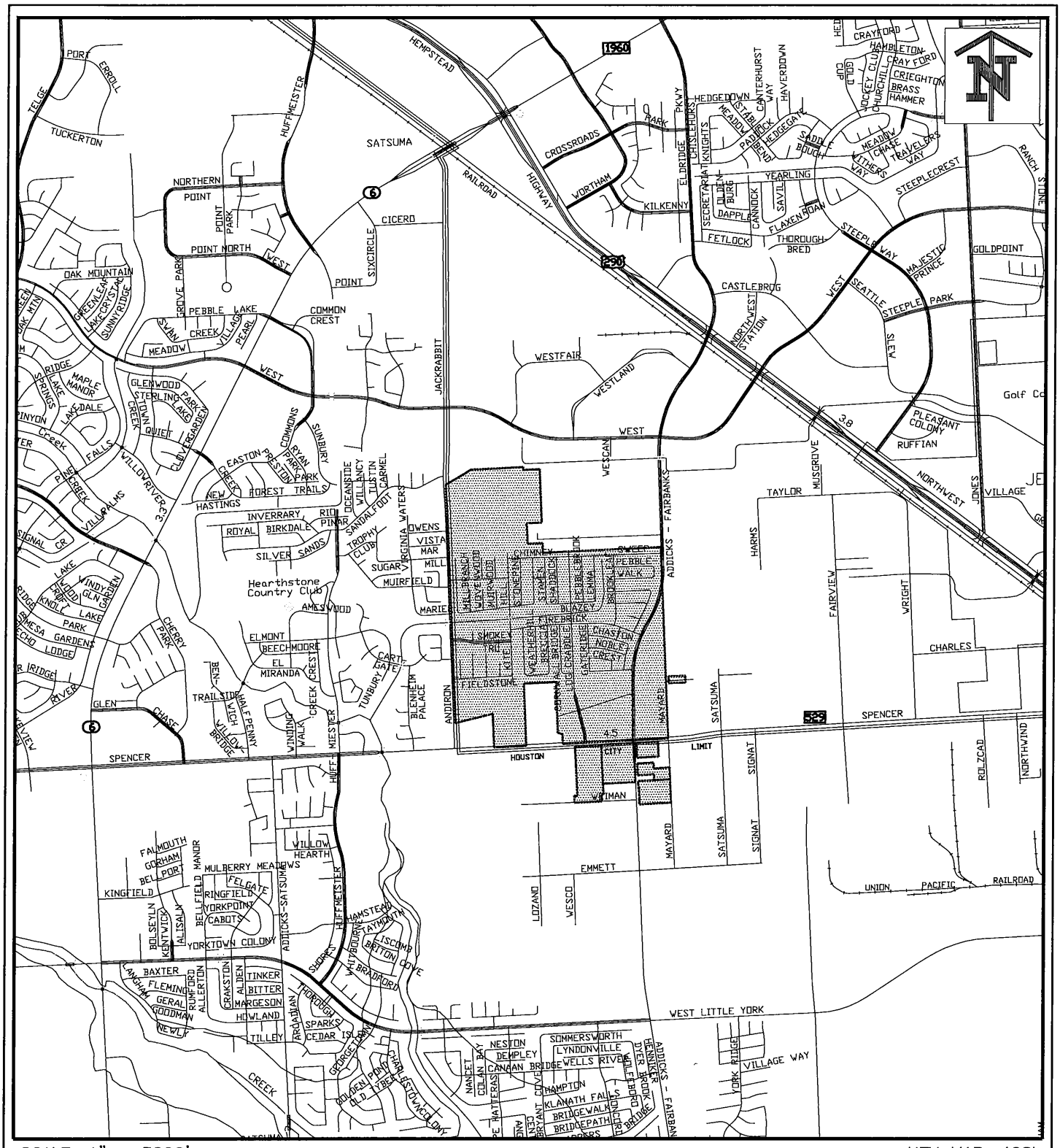
OCTOBER, 2016

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 2

## VICINITY MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**


SATSUMA
HEMPSTEAD
HIGHWAY
RAILROAD
CROSSROADS
WORTHAM
KILKENNY
CICERO
NORTHERN POINT
POINT NORTH
POINT
SIXCIRCLE
POINT PARK
GROVE PARK
HUFFMEISTER
TUCKERTON
PORT ERROLL
TELGE
OAK MOUNTAIN
GREENLEAF
LAKECRYSTAL
SUNNYRIDGE
PEBBLE LAKE
SWAN CREEK
MEADOW VILLAGE
PEARL
COMMON CREST
JACKRABBIT
WESTFAIR
WESTLAND
WEST
CASTLEBROG
NORTHWEST STATION
WEST SEATTLE
STEEPLE PARK
STEEPLE WAY
STEEPLECREST
GOLDPOINT
MAJESTIC PRINCE
YEARLING
FETLOCK
THOROUGH-BRED
DAPPLE
FLAXENROAN
CANNOCK
SAVILL
SECRETARIAT
KNIGHTS
HEDGEDOWN
HAVERDOWN
CANTERHURST WAY
HEDGEGATE
PADDOCK BEND
MEADOW CHASE WAY
TRAVELERS WAY
CRAYFORD
HAMBLETON
CRAY FORD
CRIEGHTON
BRASS HAMMER
JOCKEY CLUB
CHURCHILL
GOLD CUP
RANCH STONE
Golf Co
PLEASANT COLONY
RUFFIAN
NORTHWEST
JONES
VILLAGE
TAYLOR
MUSGROVE
HARMS
FAIRVIEW
WRIGHT
CHARLES
SPENCER
SATSUMA
LIMIT
CITY
HOUSTON
ADDICKS - FAIRBANKS
WESCAN
SWEEP
PEBBLE WALK
BROOKLEAF
CHIMNEY
FIRECREST
FIRECLAY
FIRECREEK
FIRECHASE
FIRECLIFF
FIRECOVE
FIRECREST
FIRECLOSE
FIRECLOCK
FIRECLOUD
FIRECREEK
FIRECROFT

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

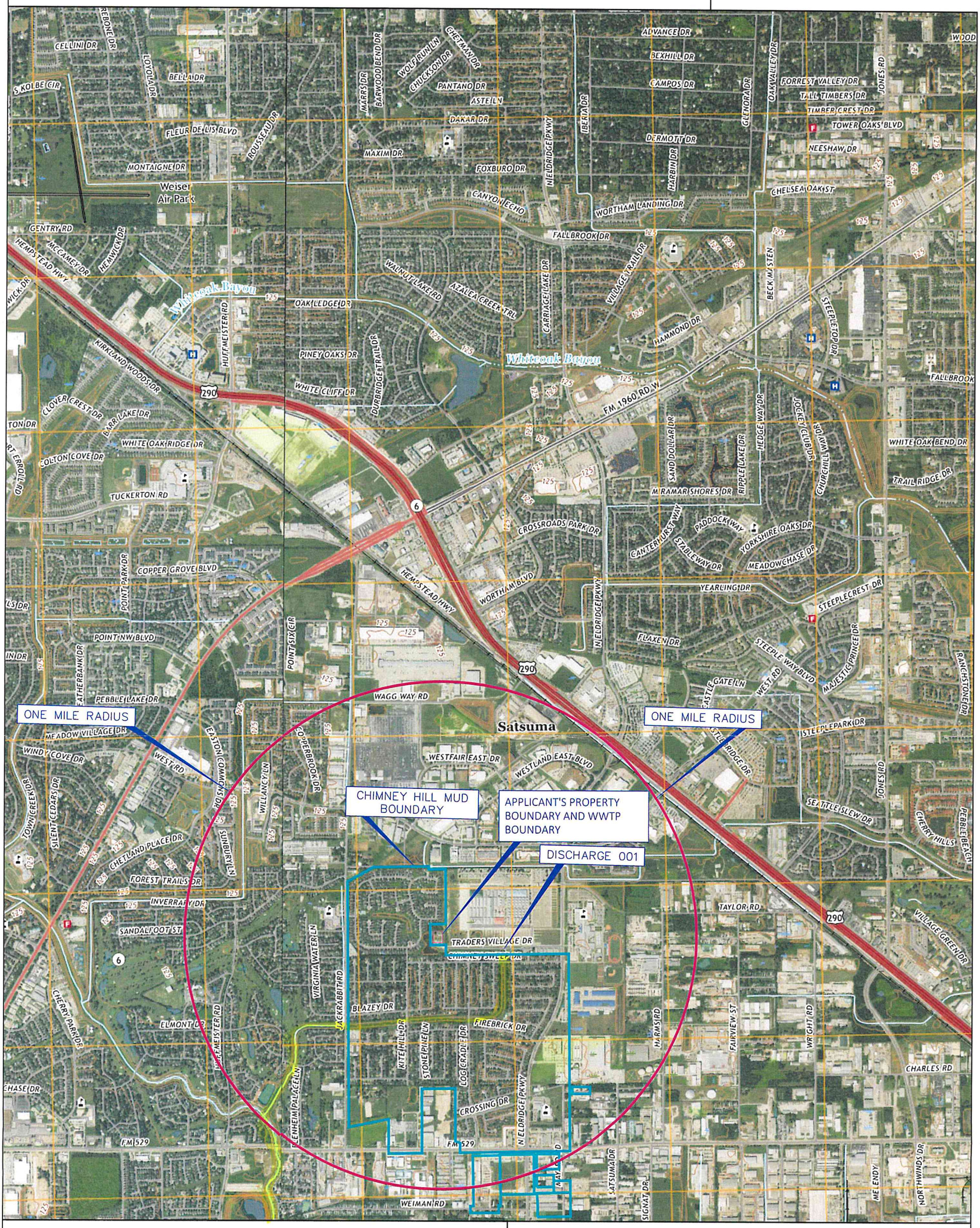
# EXHIBIT 3

## USGS MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

USGS
science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY




SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

PERMIT NO. WQ0012301001
NPDES PERMIT NO. TX0085588
HARRIS COUNTY
CHIMNEY HILL MUD
PROJECT NO. 092008.06

# DISCHARGE FLOW DIRECTION

## EXHIBIT 6
## (Ref. SPIF 8)
## EXHIBIT 3
## (Ref. AR 8m)

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10377 Stella Link Road
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713 / 942 / 2700
Texas Engineering Registration No. F-000802

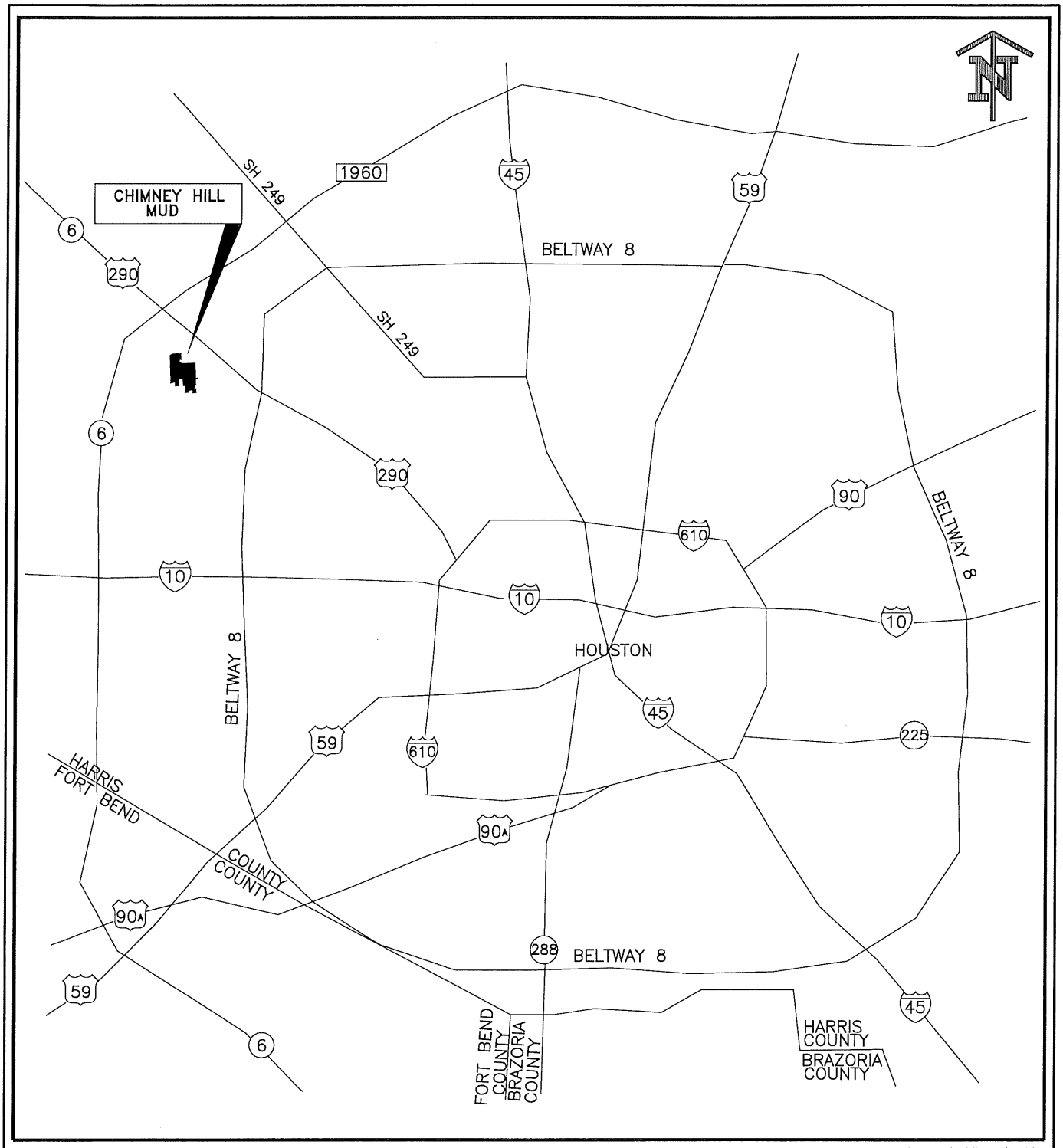
JUNE 2021

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 4

## LOCATION MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




KEY MAP: 408L

## EXHIBIT 4

HARRIS COUNTY
CHIMNEY HILL MUD
WASTEWATER TREATMENT PLANT

# LOCATION MAP

(Ref. SPIF 8)

PERMIT NO. WQ0012304-001
NPDES PERMIT NO. TX0085588
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT
PROJECT NO. 092008-04

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025
713 / 942 / 2700
Texas Engineering Registration No. F-000802

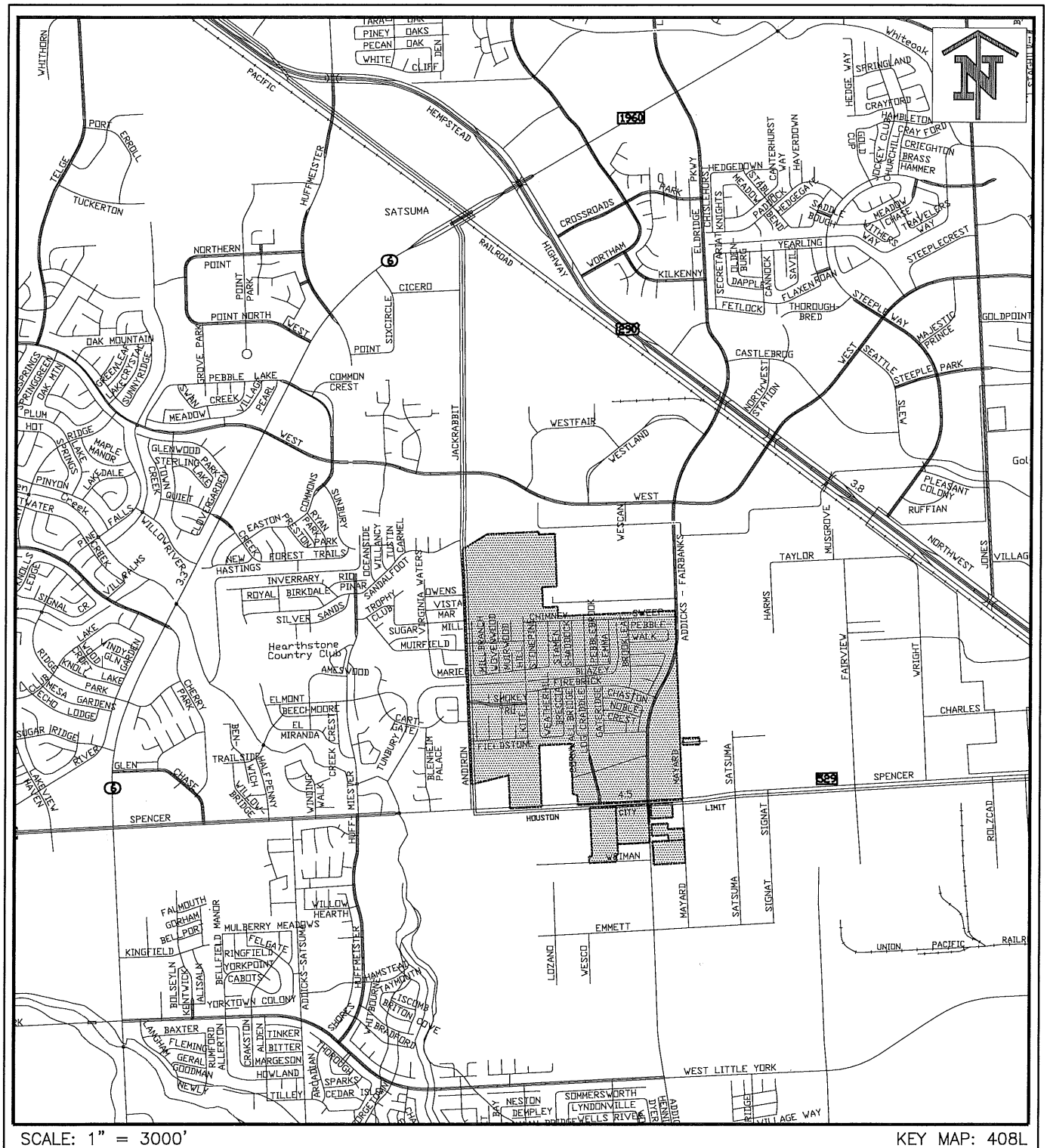
AUGUST, 2016

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 5

## VICINITY MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




SCALE: 1" = 3000'

KEY MAP: 408L

# EXHIBIT 5

HARRIS COUNTY
CHIMNEY HILL MUD
WASTEWATER TREATMENT PLANT

## VICINITY MAP

(Ref. SPIF 8)

PERMIT NO. WQ0012304-001
NPDES PERMIT NO. TX0085588
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT
PROJECT NO. 092008-04

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025
713 / 942 / 2700
Texas Engineering Registration No. F-000802

AUGUST, 2016

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

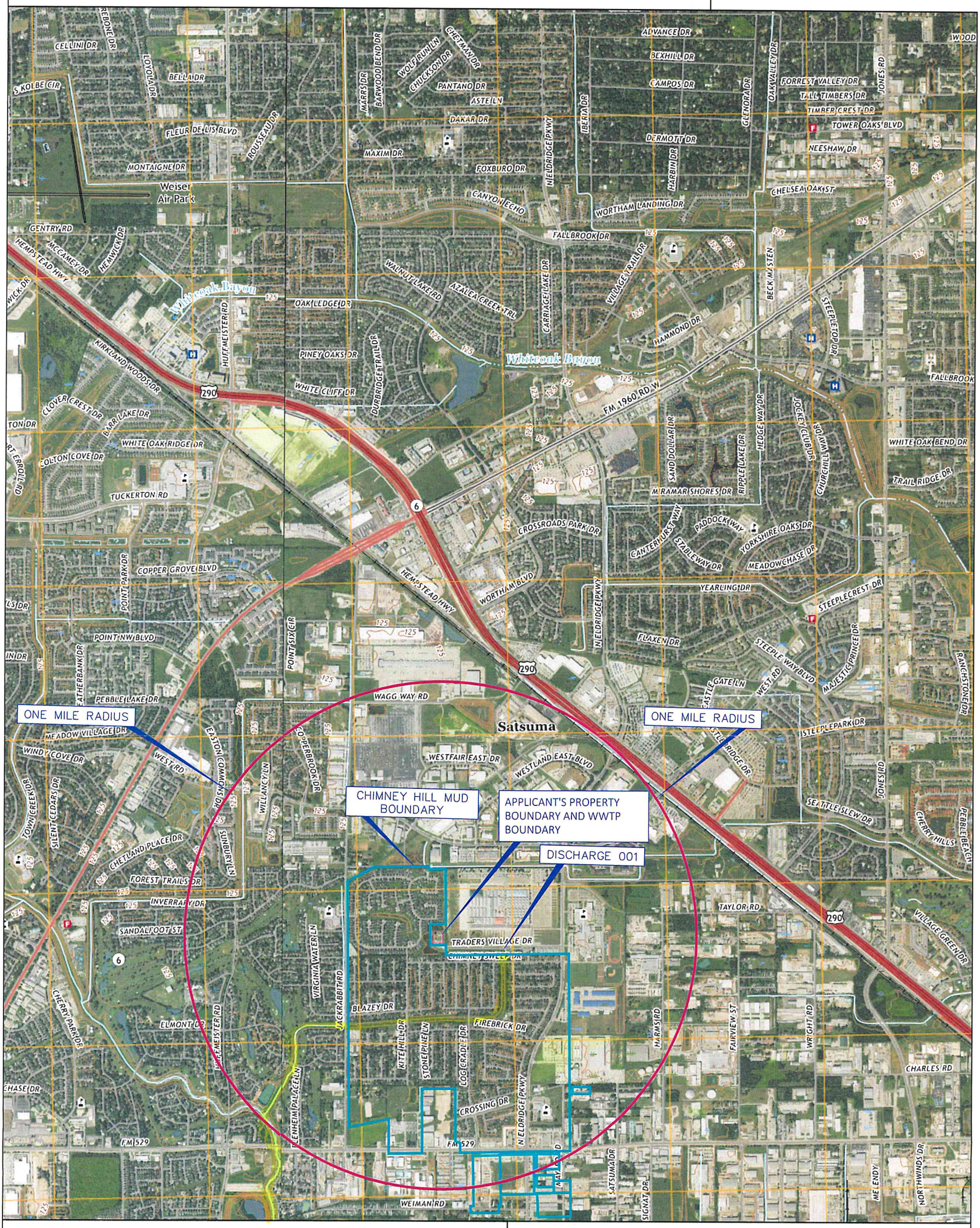
# EXHIBIT 6

## USGS MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

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U.S. GEOLOGICAL SURVEY




SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

PERMIT NO. WQ0012301001
NPDES PERMIT NO. TX0085588
HARRIS COUNTY
CHIMNEY HILL MUD
PROJECT NO. 092008.06

# DISCHARGE FLOW DIRECTION

## EXHIBIT 6
## (Ref. SPIF 8)
## EXHIBIT 3
## (Ref. AR 8m)

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025
713 / 942 / 2700
Texas Engineering Registration No. F-000802

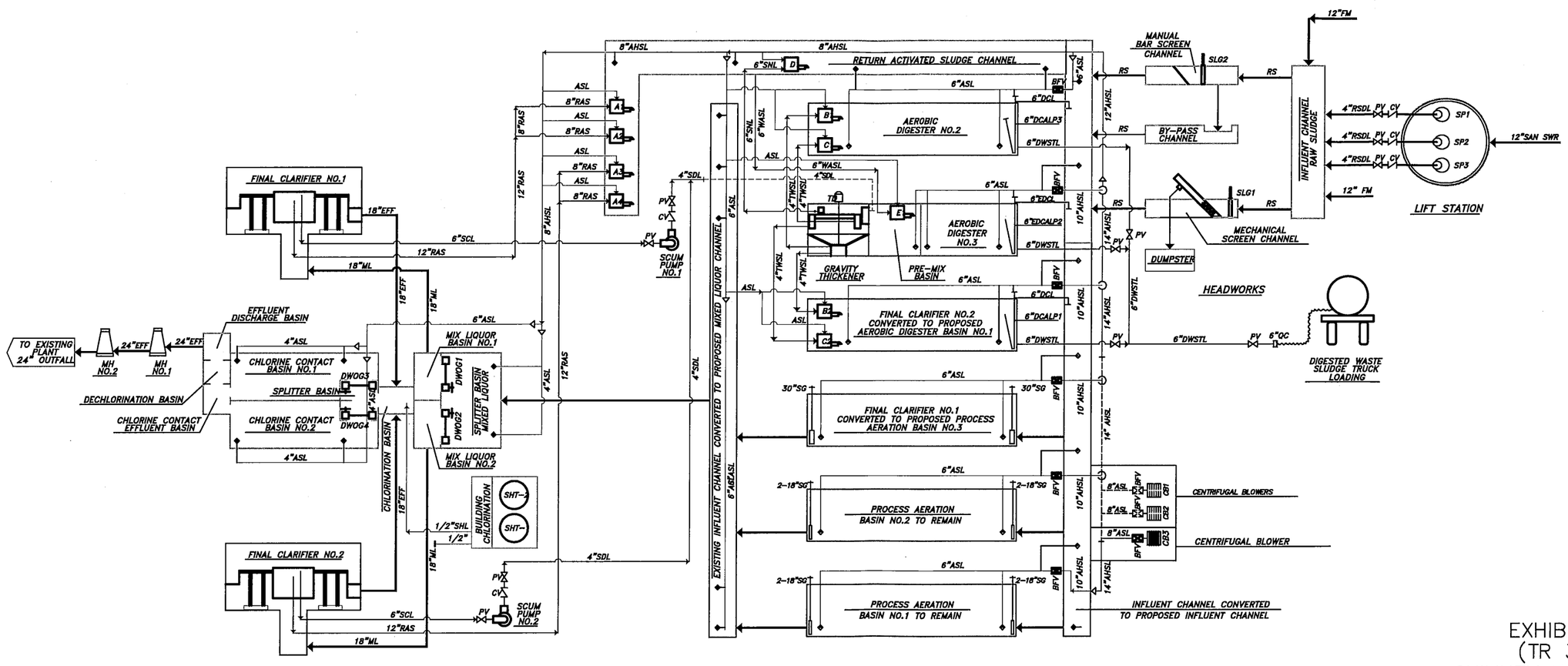
JUNE 2021

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 7

## SCHEMATIC FLOW DIAGRAM

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




MECHANICAL FLOW DIAGRAM

EXHIBIT 7
(TR 3C)
CHIMNEY HILL M.U.D.
WASTEWATER TREATMENT PLANT
SCHEMATIC FLOW DIAGRAM

PERMIT NO. WQ0012304-001
NPDES PERMIT NO. TX0085588
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT
PROJECT NO. 092008-04

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 8

## TREATMENT UNITS

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

# TREATMENT UNITS

| Treatment Unit | Dimensions |
|---|---|
| Grit Chamber (cone) | 1’ϕ bottom X 6’ϕ top X 14.5 D |
| Step Screen and Bar Screen | |
| Aeration basins (three) | 60' L X 20' W X 14.5' depth (each) |
| Final clarifiers (two) | 55' ϕ (each) |
| Aerobic digesters (three) | #1 - 20' W X 60' L X 14.5 D<br>#2 - 16' W X 60' L X 14.5 D<br>#3 - 20' W X 30' L X 14.5 D |
| Mixed Liquor Basins (two) | |
| Gravity Thickener | 18’ W X 18’ L X 14.5 D |
| Pre-mix Basin | 18’ W X 7’ L X 14.5’ D |
| Chlorine contact basin (two) | 33' L X 15' W X 14 D (each) |
| Dechlor Chamber | 8’-4” L X 5’ W X 14’ D |

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 9

## POLLUTANT ANALYSIS REPORT

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

EASTEX
ENVIRONMENTAL LABS INC.

NELAP ACCREDITED TNI LABORATORY

07 August 2025

Water District Management
Chimney Hill
P.O. Box 579
Spring, TX 77383

RE: Chimney Hill Long Permit Renewal

Enclosed are the results of analyses for samples received by the laboratory on 06/03/25 15:54, with Lab ID Number 5230892. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Bowen
Chief Operations Officer

P.O. Box 1089 Coldspring Tx 77331
Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

Chimney Hill
P.O. Box 579
Spring TX, 77383

## LABORATORY ANALYTICAL REPORT

Project: Chimney Hill Long Permit Renewal
Sample Matrix: Water
Client Matrix: Water

Sample Date and Time: 06/03/2025 09:00
Collector: WDM
Sample Type:Composite
Print Date: 8/7/2025

### Effluent PR Comp
**5230892-01 (Water)**

| Analyte | Result | Reporting Limit | Units | Nelac Status | Batch | Analyzed Date & Time | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Eastex Environmental Laboratory - Coldspring** | | | | | | | | |
| Aluminum - Total | 10.5 | 2.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Antimony - Total | <2.00 | 2.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Arsenic, Total | 1.43 | 0.500 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Barium, Total | 54.0 | 1.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Beryllium, Total | <0.500 | 0.500 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Cadmium, Total | <1.00 | 1.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Chromium, (VI) | <3 | 3 | ug/L | A | B5F6327 | 06/19/2025 10:04 | SM 3500 Cr B | |
| Chromium, Total | <1.00 | 1.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Chromium, Trivalent | <3 | 3 | ug/L | N | B5H4314 | 08/06/2025 16:40 | - | |
| Copper, Total | 4.39 | 1.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Fluoride | 149 | 100 | ug/L | A | B5F3985 | 06/03/2025 17:34 | EPA 300.0 | |
| Lead, Total | 0.573 | 0.500 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Nickel, Total | 2.14 | 2.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Nitrate as N | 14200 | 50.0 | ug/L | A | B5F3985 | 06/03/2025 17:34 | EPA 300.0 | |
| Selenium, Total | <2.00 | 2.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Silver, Total | <0.500 | 0.500 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Thallium, Total | <0.500 | 0.500 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |
| Zinc, Total | 58.0 | 5.00 | ug/L | A | B5F4134 | 06/05/2025 12:32 | EPA 200.8 | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved

EASTEX ENVIRONMENTAL LABS INC.

P.O. Box 1089 Coldspring Tx 77331
Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

NELAP ACCREDITED TNI LABORATORY

Chimney Hill
P.O. Box 579
Spring TX, 77383

Project: Chimney Hill Long Permit Renewal
Sample Matrix: Water
Client Matrix: Water

Sample Date and Time: 06/03/2025 09:06
Collector: HAW
Sample Type:Grab
Print Date: 8/7/2025

## Effluent PR Grab

**5230892-02 (Water)**

| Analyte | Result | Reporting Limit | Units | Nelac Status | Batch | Analyzed Date & Time | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Eastex Environmental Laboratory - Coldspring** | | | | | | | | |
| Chlorine | <0.1 | 0.1 | mg/L | N | B5G7433 | 06/03/2025 09:06 | SM 4500 Cl F | |
| DO | 6.6 | | mg/L | N | B5G7433 | 06/03/2025 08:45 | SM 4500 O G | |
| pH | 7.4 | | std unit | N | B5G7433 | 06/03/2025 08:45 | SM 4500 H + B | |
| Alkalinity | 44.0 | 20.0 | mg CaCO3/L | A | B5F4898 | 06/11/2025 10:59 | SM 2320 B | |
| Ammonia as N | <0.1 | 0.1 | mg/L | A | B5F4371 | 06/06/2025 08:15 | SM 4500 NH3 G | |
| CBOD 5 | 2.6 | 2.0 | mg/L | A | B5F4249 | 06/05/2025 07:02 | SM 5210 B | 1, 13 |
| Chloride | 118 | 5.0 | mg/L | A | B5F4233 | 06/04/2025 16:57 | EPA 300.0 | |
| Conductivity | 852 | 10.0 | µmhos/cm @25C | A | B5F5957 | 06/20/2025 07:52 | SM 2510 B | |
| Cyanide | 8.88 | 5.00 | ug/L | A | B5F5085 | 06/11/2025 14:52 | SM 4500 CN- E | 0 |
| E coli IDEXX | 34 | 1 | mpn/100ml | A | B5F4151 | 06/03/2025 16:37 | Colilert 18 | |
| Nitrate as N | 19.8 | 0.05 | mg/L | A | B5F4233 | 06/04/2025 16:57 | EPA 300.0 | |
| Oil Grease, HEM | <5.1 | 5.1 | mg/L | A | B5F4932 | 06/10/2025 09:30 | EPA 1664A | |
| Phenol, low level | <10.0 | 10.0 | ppb | A | B5F4411 | 06/06/2025 13:11 | EPA 420.1 | 23 |
| Sulfate | 68.9 | 4.0 | mg/L | A | B5F4233 | 06/04/2025 16:57 | EPA 300.0 | |
| TDS | 810 | 10.0 | mg/L | A | B5F4937 | 06/10/2025 13:03 | SM 2540 C | |
| TKN | 2.2 | 1.0 | mg/L | A | B5F4159 | 06/05/2025 10:45 | EPA 351.2 | |
| Total Phosphorus | 5.03 | 0.0600 | mg/L | A | B5F4200 | 06/05/2025 14:14 | EPA 200.7 | |
| TSS | 1.6 | 1.0 | mg/L | A | B5F4283 | 06/05/2025 11:03 | SM 2540 D | |
| 1,1,1-Trichloroethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | 53 |
| 1,1,2,2-Tetrachloroethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 1,1,2-Trichloroethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 1,1-Dichloroethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 1,1- Dichloroethene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 1,2-Dibromoethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | 23 |
| 1,2-Dichloroethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 1,2-Dichloropropane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 2-Chloroethyl vinyl ether | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Acrolein | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Acrylonitrile | <50.0 | 50.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Benzene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Bromodichloromethane | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |



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Chimney Hill
P.O. Box 579
Spring TX, 77383

Project: Chimney Hill Long Permit Renewal
Sample Matrix: Water
Client Matrix: Water

Sample Date and Time: 06/03/2025 09:06
Collector: HAW
Sample Type:Grab
Print Date: 8/7/2025

## Effluent PR Grab

### 5230892-02 (Water)

| Analyte | Result | Reporting Limit | Units | Nelac Status | Batch | Analyzed Date & Time | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Eastex Environmental Laboratory - Coldspring** | | | | | | | | |
| Bromoform | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Carbon Tetrachloride | <2.00 | 2.00 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Chlorobenzene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Chloroethane | <50.0 | 50.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Chloroform | 31.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Dibromochloromethane (Chlorodibromomethane) | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Cis-1,3-Dichloropropene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Ethylbenzene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Methyl Bromide | <50.0 | 50.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Methyl Chloride | <50.0 | 50.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Methyl Ethyl Ketone | <50.0 | 50.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | 23 |
| Toluene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| trans-1,2-Dichloroethene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Trans-1,3-Dichloropropene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Trichloroethene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Total Trihalomethanes | 39.4 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Cis-1,2-Dichloroethene | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Vinyl Chloride | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| 1,3-Dichloropropene | <10.0 | 10.0 | ug/L | N | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Methylene Chloride (Dichloromethane) | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Tetrachloroethene (Tetrachloroethylene) | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | |
| Acetone | <10.0 | 10.0 | ug/L | A | B5F4132 | 06/04/2025 12:28 | EPA 624.1 | 23 |
| *Surrogate: 1,2-Dichloroethane-d4* | | *70.4 %* | *60-140* | | *B5F4132* | 06/04/2025 12:28 | *EPA 624.1* | |
| *Surrogate: 4-Bromofluorobenzene* | | *75.2 %* | *60-140* | | *B5F4132* | 06/04/2025 12:28 | *EPA 624.1* | |
| *Surrogate: Dibromofluoromethane* | | *81.6 %* | *60-140* | | *B5F4132* | 06/04/2025 12:28 | *EPA 624.1* | |
| *Surrogate: Toluene-d8* | | *115 %* | *60-140* | | *B5F4132* | 06/04/2025 12:28 | *EPA 624.1* | |



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## EPA 300.0 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F3985 - No Prep** | | | | | | | | | | |
| **Blank (B5F3985-BLK1)** | | | | **Prepared & Analyzed:** 6/3/2025 5:34:00PM | | | | | | |
| Fluoride | ND | 100 | ug/L | | | | | | | |
| Nitrate as N | ND | 50.0 | ug/L | | | | | | | |
| **LCS (B5F3985-BS1)** | | | | **Prepared & Analyzed:** 6/3/2025 5:34:00PM | | | | | | |
| Fluoride | 0.489 | | mg/L | 0.500 | | 97.8 | 90-110 | | | |
| Nitrate as N | 1.3807 | | mg/L | 1.50 | | 92.0 | 90-110 | | | |
| **Matrix Spike (B5F3985-MS1)** | **Source: 5230455-01** | | | **Prepared & Analyzed:** 6/3/2025 5:34:00PM | | | | | | |
| Fluoride | 2660 | 100 | ug/L | 2500 | 127 | 101 | 80-120 | | | |
| Nitrate as N | 6404.6 | 50.0 | ug/L | 7500 | ND | 85.4 | 80-120 | | | |
| **Matrix Spike Dup (B5F3985-MSD1)** | **Source: 5230455-01** | | | **Prepared & Analyzed:** 6/3/2025 5:34:00PM | | | | | | |
| Fluoride | 2530 | 100 | ug/L | 2500 | 127 | 96.1 | 80-120 | 4.93 | 20 | |
| Nitrate as N | 6264.8 | 50.0 | ug/L | 7500 | ND | 83.5 | 80-120 | 2.21 | 20 | |
| **Batch B5F4132 - EPA 5030C** | | | | | | | | | | |
| **Blank (B5F4132-BLK1)** | | | | **Prepared & Analyzed:** 6/4/2025 11:58:00AM | | | | | | |
| 1,1,1-Trichloroethane | ND | 10.0 | ug/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 10.0 | ug/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 10.0 | ug/L | | | | | | | |
| 1,1-Dichloroethane | ND | 10.0 | ug/L | | | | | | | |
| 1,1- Dichloroethene | ND | 10.0 | ug/L | | | | | | | |
| 1,2-Dibromoethane | ND | 10.0 | ug/L | | | | | | | |
| 1,2-Dichloroethane | ND | 10.0 | ug/L | | | | | | | |
| 1,2-Dichloropropane | ND | 10.0 | ug/L | | | | | | | |
| 2-Chloroethyl vinyl ether | ND | 10.0 | ug/L | | | | | | | |
| Acrolein | ND | 10.0 | ug/L | | | | | | | |
| Acrylonitrile | ND | 50.0 | ug/L | | | | | | | |
| Benzene | ND | 10.0 | ug/L | | | | | | | |
| Bromodichloromethane | ND | 10.0 | ug/L | | | | | | | |
| Bromoform | ND | 10.0 | ug/L | | | | | | | |
| Carbon Tetrachloride | ND | 2.00 | ug/L | | | | | | | |
| Chlorobenzene | ND | 10.0 | ug/L | | | | | | | |
| Chloroethane | ND | 50.0 | ug/L | | | | | | | |
| Chloroform | ND | 10.0 | ug/L | | | | | | | |
| Dibromochloromethane (Chlorodibromomethane) | ND | 10.0 | ug/L | | | | | | | |
| Cis-1,3-Dichloropropene | ND | 10.0 | ug/L | | | | | | | |
| Ethylbenzene | ND | 10.0 | ug/L | | | | | | | |



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## EPA 624.1 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4132 - EPA 5030C** | | | | | | | | | | |
| **Blank (B5F4132-BLK1)** | | | | **Prepared & Analyzed:** 6/4/2025 11:58:00AM | | | | | | |
| Methyl Bromide | ND | 50.0 | ug/L | | | | | | | |
| Methyl Chloride | ND | 50.0 | ug/L | | | | | | | |
| Methyl Ethyl Ketone | ND | 50.0 | ug/L | | | | | | | |
| Toluene | ND | 10.0 | ug/L | | | | | | | |
| trans-1,2-Dichloroethene | ND | 10.0 | ug/L | | | | | | | |
| Trans-1,3-Dichloropropene | ND | 10.0 | ug/L | | | | | | | |
| Trichloroethene | ND | 10.0 | ug/L | | | | | | | |
| Total Trihalomethanes | ND | 10.0 | ug/L | | | | | | | |
| Cis-1,2-Dichloroethene | ND | 10.0 | ug/L | | | | | | | |
| Vinyl Chloride | ND | 10.0 | ug/L | | | | | | | |
| 1,3-Dichloropropene | ND | 10.0 | ug/L | | | | | | | |
| Methylene Chloride (Dichloromethane) | ND | 10.0 | ug/L | | | | | | | |
| Tetrachloroethene (Tetrachloroethylene) | ND | 10.0 | ug/L | | | | | | | |
| Acetone | ND | 10.0 | ug/L | | | | | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *16.9* | | ug/L | *20.0* | | *84.3* | *60-140* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *17.3* | | ug/L | *20.0* | | *86.7* | *60-140* | | | |
| *Surrogate: Dibromofluoromethane* | *17.4* | | ug/L | *20.0* | | *86.9* | *60-140* | | | |
| *Surrogate: Toluene-d8* | *22.8* | | ug/L | *20.0* | | *114* | *60-140* | | | |
| **LCS (B5F4132-BS1)** | | | | **Prepared & Analyzed:** 6/4/2025 10:05:00AM | | | | | | |
| 1,1,1-Trichloroethane | 17.0 | 10.0 | ug/L | 20.0 | | 85.1 | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 18.1 | 10.0 | ug/L | 20.0 | | 90.4 | 60-140 | | | |
| 1,1,2-Trichloroethane | 17.8 | 10.0 | ug/L | 20.0 | | 89.0 | 70-130 | | | |
| 1,1-Dichloroethane | 19.4 | 10.0 | ug/L | 20.0 | | 96.9 | 71-143 | | | |
| 1,1- Dichloroethene | 22.8 | 10.0 | ug/L | 20.0 | | 114 | 50-150 | | | |
| 1,2-Dibromoethane | 17.8 | 10.0 | ug/L | 20.0 | | 89.0 | 70-130 | | | |
| 1,2-Dichloroethane | 19.4 | 10.0 | ug/L | 20.0 | | 96.8 | 70-130 | | | |
| 1,2-Dichloropropane | 19.9 | 10.0 | ug/L | 20.0 | | 99.7 | 35-165 | | | |
| 2-Chloroethyl vinyl ether | 20.3 | 10.0 | ug/L | 100 | | 20.3 | 0-225 | | | |
| Acrolein | 182 | 10.0 | ug/L | 200 | | 91.0 | 60-140 | | | |
| Acrylonitrile | 17.0 | 50.0 | ug/L | 20.0 | | 85.0 | 60-140 | | | |
| Benzene | 20.7 | 10.0 | ug/L | 20.0 | | 103 | 65-135 | | | |
| Bromodichloromethane | 17.6 | 10.0 | ug/L | 20.0 | | 87.8 | 65-135 | | | |
| Bromoform | 14.5 | 10.0 | ug/L | 20.0 | | 72.7 | 70-130 | | | |
| Carbon Tetrachloride | 19.5 | 2.00 | ug/L | 20.0 | | 97.3 | 70-130 | | | |
| Chlorobenzene | 19.3 | 10.0 | ug/L | 20.0 | | 96.6 | 65-135 | | | |
| Chloroethane | 21.4 | 50.0 | ug/L | 20.0 | | 107 | 40-160 | | | |
| Chloroform | 19.8 | 10.0 | ug/L | 20.0 | | 98.8 | 70-135 | | | |



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NELAP ACCREDITED TNI LABORATORY

## EPA 624.1 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4132 - EPA 5030C** | | | | | | | | | | |
| **LCS (B5F4132-BS1)** | | | | **Prepared & Analyzed:** 6/4/2025 10:05:00AM | | | | | | |
| Dibromochloromethane (Chlorodibromomethane) | 15.6 | 10.0 | ug/L | 20.0 | | 77.9 | 70-135 | | | |
| Cis-1,3-Dichloropropene | 16.7 | 10.0 | ug/L | 20.0 | | 83.3 | 25-175 | | | |
| Ethylbenzene | 21.1 | 10.0 | ug/L | 20.0 | | 105 | 60-140 | | | |
| Methyl Bromide | 13.2 | 50.0 | ug/L | 20.0 | | 66.0 | 15-185 | | | |
| Methyl Chloride | 44.1 | 50.0 | ug/L | 20.0 | | 221 | 0-221 | | | |
| Methyl Ethyl Ketone | 93.5 | 50.0 | ug/L | 100 | | 93.5 | 70-130 | | | |
| Toluene | 20.4 | 10.0 | ug/L | 20.0 | | 102 | 70-130 | | | |
| trans-1,2-Dichloroethene | 17.2 | 10.0 | ug/L | 20.0 | | 86.2 | 70-130 | | | |
| Trans-1,3-Dichloropropene | 15.6 | 10.0 | ug/L | 20.0 | | 77.9 | 50-150 | | | |
| Trichloroethene | 19.5 | 10.0 | ug/L | 20.0 | | 97.5 | 65-135 | | | |
| Cis-1,2-Dichloroethene | 18.4 | 10.0 | ug/L | 20.0 | | 91.9 | 63-137 | | | |
| Vinyl Chloride | 24.0 | 10.0 | ug/L | 20.0 | | 120 | 50-150 | | | |
| Methylene Chloride (Dichloromethane) | 19.7 | 10.0 | ug/L | 20.0 | | 98.6 | 60-140 | | | |
| Tetrachloroethene (Tetrachloroethylene) | 18.8 | 10.0 | ug/L | 20.0 | | 93.9 | 70-130 | | | |
| Acetone | 91.2 | 10.0 | ug/L | 100 | | 91.2 | 70-130 | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *19.0* | | ug/L | *20.0* | | *94.8* | *60-140* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *18.4* | | ug/L | *20.0* | | *91.8* | *60-140* | | | |
| *Surrogate: Dibromofluoromethane* | *18.0* | | ug/L | *20.0* | | *90.2* | *60-140* | | | |
| *Surrogate: Toluene-d8* | *20.1* | | ug/L | *20.0* | | *100* | *60-140* | | | |
| **Matrix Spike (B5F4132-MS1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/4/2025 2:57:00PM | | | | | | |
| 1,1,1-Trichloroethane | 17.3 | 10.0 | ug/L | 20.0 | ND | 86.6 | 52-162 | | | |
| 1,1,2,2-Tetrachloroethane | 16.9 | 10.0 | ug/L | 20.0 | ND | 84.6 | 46-157 | | | |
| 1,1,2-Trichloroethane | 14.9 | 10.0 | ug/L | 20.0 | ND | 74.6 | 52-150 | | | |
| 1,1-Dichloroethane | 20.6 | 10.0 | ug/L | 20.0 | ND | 103 | 59-155 | | | |
| 1,1- Dichloroethene | 25.6 | 10.0 | ug/L | 20.0 | ND | 128 | 0-234 | | | |
| 1,2-Dibromoethane | 13.8 | 10.0 | ug/L | 20.0 | ND | 69.0 | 70-130 | | | 23 |
| 1,2-Dichloroethane | 16.1 | 10.0 | ug/L | 20.0 | ND | 80.7 | 49-155 | | | |
| 1,2-Dichloropropane | 17.8 | 10.0 | ug/L | 20.0 | ND | 88.8 | 0-210 | | | |
| 2-Chloroethyl vinyl ether | ND | 10.0 | ug/L | 100 | ND | | 0-305 | | | |
| Acrolein | 113 | 10.0 | ug/L | 200 | ND | 56.7 | 40-160 | | | |
| Acrylonitrile | 12.1 | 50.0 | ug/L | 20.0 | ND | 60.6 | 40-160 | | | |
| Benzene | 19.9 | 10.0 | ug/L | 20.0 | ND | 99.5 | 37-151 | | | |
| Bromodichloromethane | 24.8 | 10.0 | ug/L | 20.0 | 7.37 | 87.0 | 35-155 | | | |
| Bromoform | 11.5 | 10.0 | ug/L | 20.0 | ND | 57.4 | 45-169 | | | |
| Carbon Tetrachloride | 20.1 | 2.00 | ug/L | 20.0 | ND | 100 | 70-140 | | | |
| Chlorobenzene | 18.3 | 10.0 | ug/L | 20.0 | ND | 91.5 | 37-160 | | | |
| Chloroethane | 40.5 | 50.0 | ug/L | 20.0 | ND | 202 | 14-230 | | | |



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Spring TX, 77383

## EPA 624.1 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4132 - EPA 5030C** | | | | | | | | | | |
| **Matrix Spike (B5F4132-MS1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/4/2025 2:57:00PM | | | | | | |
| Chloroform | 54.5 | 10.0 | ug/L | 20.0 | 31.0 | 117 | 51-138 | | | |
| Dibromochloromethane (Chlorodibromomethane) | 15.1 | 10.0 | ug/L | 20.0 | 1.07 | 70.4 | 53-149 | | | |
| Cis-1,3-Dichloropropene | 14.0 | 10.0 | ug/L | 20.0 | ND | 70.0 | 0-227 | | | |
| Ethylbenzene | 20.6 | 10.0 | ug/L | 20.0 | ND | 103 | 37-162 | | | |
| Methyl Bromide | 16.2 | 50.0 | ug/L | 20.0 | ND | 80.8 | 70-130 | | | |
| Methyl Chloride | 39.7 | 50.0 | ug/L | 20.0 | ND | 199 | 0-221 | | | |
| Methyl Ethyl Ketone | 59.0 | 50.0 | ug/L | 100 | ND | 59.0 | 70-130 | | | 23 |
| Toluene | 19.4 | 10.0 | ug/L | 20.0 | ND | 96.9 | 47-150 | | | |
| trans-1,2-Dichloroethene | 19.1 | 10.0 | ug/L | 20.0 | ND | 95.7 | 54-156 | | | |
| Trans-1,3-Dichloropropene | 13.1 | 10.0 | ug/L | 20.0 | ND | 65.4 | 17-183 | | | |
| Trichloroethene | 18.3 | 10.0 | ug/L | 20.0 | ND | 91.4 | 70-157 | | | |
| Cis-1,2-Dichloroethene | 16.9 | 10.0 | ug/L | 20.0 | ND | 84.6 | 63-137 | | | |
| Vinyl Chloride | 25.8 | 10.0 | ug/L | 20.0 | ND | 129 | 0-151 | | | |
| Methylene Chloride (Dichloromethane) | 17.4 | 10.0 | ug/L | 20.0 | ND | 87.2 | 0-221 | | | |
| Tetrachloroethene (Tetrachloroethylene) | 16.0 | 10.0 | ug/L | 20.0 | ND | 79.8 | 64-148 | | | |
| Acetone | 65.8 | 10.0 | ug/L | 100 | ND | 65.8 | 70-130 | | | 23 |
| *Surrogate: 1,2-Dichloroethane-d4* | *15.6* | | ug/L | *20.0* | | *78.0* | *60-140* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *18.4* | | ug/L | *20.0* | | *91.8* | *60-140* | | | |
| *Surrogate: Dibromofluoromethane* | *18.0* | | ug/L | *20.0* | | *90.2* | *60-140* | | | |
| *Surrogate: Toluene-d8* | *21.5* | | ug/L | *20.0* | | *108* | *60-140* | | | |
| **Matrix Spike Dup (B5F4132-MSD1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/4/2025 3:24:00PM | | | | | | |
| 1,1,1-Trichloroethane | 11.6 | 10.0 | ug/L | 20.0 | ND | 57.9 | 52-162 | 39.6 | 36 | 53 |
| 1,1,2,2-Tetrachloroethane | 15.2 | 10.0 | ug/L | 20.0 | ND | 75.9 | 46-157 | 10.9 | 61 | |
| 1,1,2-Trichloroethane | 14.1 | 10.0 | ug/L | 20.0 | ND | 70.7 | 52-150 | 5.25 | 45 | |
| 1,1-Dichloroethane | 19.1 | 10.0 | ug/L | 20.0 | ND | 95.7 | 59-155 | 7.15 | 40 | |
| 1,1- Dichloroethene | 30.2 | 10.0 | ug/L | 20.0 | ND | 151 | 0-234 | 16.5 | 32 | |
| 1,2-Dibromoethane | 13.0 | 10.0 | ug/L | 20.0 | ND | 65.0 | 70-130 | 5.92 | 25 | |
| 1,2-Dichloroethane | 15.4 | 10.0 | ug/L | 20.0 | ND | 76.9 | 49-155 | 4.80 | 49 | |
| 1,2-Dichloropropane | 18.6 | 10.0 | ug/L | 20.0 | ND | 92.9 | 0-210 | 4.58 | 55 | |
| 2-Chloroethyl vinyl ether | ND | 10.0 | ug/L | 100 | ND | | 0-305 | | 71 | |
| Acrolein | 120 | 10.0 | ug/L | 200 | ND | 60.1 | 40-160 | 5.82 | 60 | |
| Acrylonitrile | 10.1 | 50.0 | ug/L | 20.0 | ND | 50.5 | 40-160 | 18.1 | 60 | |
| Benzene | 19.5 | 10.0 | ug/L | 20.0 | ND | 97.4 | 37-151 | 2.15 | 61 | |
| Bromodichloromethane | 26.1 | 10.0 | ug/L | 20.0 | 7.37 | 93.9 | 35-155 | 5.35 | 56 | |
| Bromoform | 10.8 | 10.0 | ug/L | 20.0 | ND | 53.8 | 45-169 | 6.55 | 42 | |
| Carbon Tetrachloride | 20.6 | 2.00 | ug/L | 20.0 | ND | 103 | 70-140 | 2.86 | 41 | |
| Chlorobenzene | 18.6 | 10.0 | ug/L | 20.0 | ND | 93.2 | 37-160 | 1.94 | 53 | |



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## EPA 624.1 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4132 - EPA 5030C** | | | | | | | | | | |
| **Matrix Spike Dup (B5F4132-MSD1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/4/2025 3:24:00PM | | | | | | |
| Chloroethane | 39.3 | 50.0 | ug/L | 20.0 | ND | 197 | 14-230 | 2.88 | 78 | |
| Chloroform | 56.0 | 10.0 | ug/L | 20.0 | 31.0 | 125 | 51-138 | 2.74 | 54 | |
| Dibromochloromethane (Chlorodibromomethane) | 14.4 | 10.0 | ug/L | 20.0 | 1.07 | 66.8 | 53-149 | 4.80 | 50 | |
| Cis-1,3-Dichloropropene | 14.5 | 10.0 | ug/L | 20.0 | ND | 72.3 | 0-227 | 3.16 | 58 | |
| Ethylbenzene | 21.6 | 10.0 | ug/L | 20.0 | ND | 108 | 37-162 | 4.29 | 63 | |
| Methyl Bromide | 16.7 | 50.0 | ug/L | 20.0 | ND | 83.4 | 70-130 | 3.23 | 25 | |
| Methyl Chloride | 41.9 | 50.0 | ug/L | 20.0 | ND | 210 | 0-221 | 5.34 | 25 | |
| Methyl Ethyl Ketone | 52.8 | 50.0 | ug/L | 100 | ND | 52.8 | 70-130 | 11.0 | 25 | |
| Toluene | 20.5 | 10.0 | ug/L | 20.0 | ND | 102 | 47-150 | 5.53 | 41 | |
| trans-1,2-Dichloroethene | 17.1 | 10.0 | ug/L | 20.0 | ND | 85.5 | 54-156 | 11.2 | 45 | |
| Trans-1,3-Dichloropropene | 12.5 | 10.0 | ug/L | 20.0 | ND | 62.4 | 17-183 | 4.66 | 86 | |
| Trichloroethene | 17.4 | 10.0 | ug/L | 20.0 | ND | 87.1 | 70-157 | 4.83 | 48 | |
| Cis-1,2-Dichloroethene | 15.1 | 10.0 | ug/L | 20.0 | ND | 75.4 | 63-137 | 11.6 | 25 | |
| Vinyl Chloride | 27.5 | 10.0 | ug/L | 20.0 | ND | 138 | 0-151 | 6.58 | 66 | |
| Methylene Chloride (Dichloromethane) | 17.5 | 10.0 | ug/L | 20.0 | ND | 87.3 | 0-221 | 0.107 | 28 | |
| Tetrachloroethene (Tetrachloroethylene) | 16.2 | 10.0 | ug/L | 20.0 | ND | 81.2 | 64-148 | 1.64 | 39 | |
| Acetone | 61.1 | 10.0 | ug/L | 100 | ND | 61.1 | 70-130 | 7.42 | 25 | |
| *Surrogate: 1,2-Dichloroethane-d4* | *14.9* | | ug/L | *20.0* | | *74.7* | *60-140* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *18.2* | | ug/L | *20.0* | | *90.9* | *60-140* | | | |
| *Surrogate: Dibromofluoromethane* | *16.9* | | ug/L | *20.0* | | *84.5* | *60-140* | | | |
| *Surrogate: Toluene-d8* | *21.6* | | ug/L | *20.0* | | *108* | *60-140* | | | |
| **Batch B5F4134 - EPA 200.8** | | | | | | | | | | |
| **Blank (B5F4134-BLK1)** | | | | **Prepared & Analyzed:** 6/5/2025 11:19:00AM | | | | | | |
| Aluminum - Total | ND | 2.00 | ug/L | | | | | | | |
| Antimony - Total | ND | 2.00 | ug/L | | | | | | | |
| Arsenic, Total | ND | 0.500 | ug/L | | | | | | | |
| Barium, Total | ND | 1.00 | ug/L | | | | | | | |
| Beryllium, Total | ND | 0.500 | ug/L | | | | | | | |
| Cadmium, Total | ND | 1.00 | ug/L | | | | | | | |
| Chromium, Total | ND | 1.00 | ug/L | | | | | | | |
| Copper, Total | ND | 1.00 | ug/L | | | | | | | |
| Lead, Total | ND | 0.500 | ug/L | | | | | | | |
| Nickel, Total | ND | 2.00 | ug/L | | | | | | | |
| Selenium, Total | ND | 2.00 | ug/L | | | | | | | |
| Silver, Total | ND | 0.500 | ug/L | | | | | | | |
| Thallium, Total | ND | 0.500 | ug/L | | | | | | | |



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## EPA 200.8 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4134 - EPA 200.8** | | | | | | | | | | |
| **Blank (B5F4134-BLK1)** | | | | **Prepared & Analyzed:** 6/5/2025 11:19:00AM | | | | | | |
| Zinc, Total | ND | 5.00 | ug/L | | | | | | | |
| **LCS (B5F4134-BS1)** | | | | **Prepared & Analyzed:** 6/5/2025 11:22:00AM | | | | | | |
| Aluminum - Total | 107 | 2.00 | ug/L | 100 | | 107 | 85-115 | | | |
| Antimony - Total | 94.6 | 2.00 | ug/L | 100 | | 94.6 | 85-115 | | | |
| Arsenic, Total | 94.6 | 0.500 | ug/L | 100 | | 94.6 | 85-115 | | | |
| Barium, Total | 94.4 | 1.00 | ug/L | 100 | | 94.4 | 85-115 | | | |
| Beryllium, Total | 93.9 | 0.500 | ug/L | 100 | | 93.9 | 85-115 | | | |
| Cadmium, Total | 97.2 | 1.00 | ug/L | 100 | | 97.2 | 85-115 | | | |
| Chromium, Total | 95.8 | 1.00 | ug/L | 100 | | 95.8 | 85-115 | | | |
| Copper, Total | 97.8 | 1.00 | ug/L | 100 | | 97.8 | 85-115 | | | |
| Lead, Total | 95.0 | 0.500 | ug/L | 100 | | 95.0 | 85-115 | | | |
| Nickel, Total | 96.4 | 2.00 | ug/L | 100 | | 96.4 | 85-115 | | | |
| Selenium, Total | 90.0 | 2.00 | ug/L | 100 | | 90.0 | 85-115 | | | |
| Silver, Total | 99.7 | 0.500 | ug/L | 100 | | 99.7 | 85-115 | | | |
| Thallium, Total | 95.2 | 0.500 | ug/L | 100 | | 95.2 | 85-115 | | | |
| Zinc, Total | 95.0 | 5.00 | ug/L | 100 | | 95.0 | 85-115 | | | |
| **Matrix Spike (B5F4134-MS1)** | **Source: 5230367-01** | | | **Prepared & Analyzed:** 6/5/2025 11:35:00AM | | | | | | |
| Aluminum - Total | 117 | 2.00 | ug/L | 100 | 37.6 | 79.2 | 70-130 | | | |
| Antimony - Total | 98.2 | 2.00 | ug/L | 100 | ND | 98.2 | 70-130 | | | |
| Arsenic, Total | 98.0 | 0.500 | ug/L | 100 | 1.91 | 96.1 | 70-130 | | | |
| Barium, Total | 175 | 1.00 | ug/L | 100 | 85.1 | 89.8 | 70-130 | | | |
| Beryllium, Total | 94.5 | 0.500 | ug/L | 100 | ND | 94.5 | 70-130 | | | |
| Cadmium, Total | 97.7 | 1.00 | ug/L | 100 | 0.0870 | 97.6 | 70-130 | | | |
| Chromium, Total | 95.9 | 1.00 | ug/L | 100 | 1.52 | 94.3 | 70-130 | | | |
| Copper, Total | 99.1 | 1.00 | ug/L | 100 | 6.68 | 92.4 | 70-130 | | | |
| Lead, Total | 96.0 | 0.500 | ug/L | 100 | 2.01 | 94.0 | 70-130 | | | |
| Nickel, Total | 95.9 | 2.00 | ug/L | 100 | 3.32 | 92.6 | 70-130 | | | |
| Selenium, Total | 92.1 | 2.00 | ug/L | 100 | 0.471 | 91.6 | 70-130 | | | |
| Silver, Total | 97.7 | 0.500 | ug/L | 100 | ND | 97.7 | 70-130 | | | |
| Thallium, Total | 94.4 | 0.500 | ug/L | 100 | 0.0440 | 94.3 | 70-130 | | | |
| Zinc, Total | 142 | 5.00 | ug/L | 100 | 49.9 | 91.8 | 70-130 | | | |
| **Matrix Spike Dup (B5F4134-MSD1)** | **Source: 5230367-01** | | | **Prepared & Analyzed:** 6/5/2025 11:38:00AM | | | | | | |
| Aluminum - Total | 116 | 2.00 | ug/L | 100 | 37.6 | 78.6 | 70-130 | 0.436 | 20 | |
| Antimony - Total | 97.2 | 2.00 | ug/L | 100 | ND | 97.2 | 70-130 | 1.01 | 20 | |
| Arsenic, Total | 100 | 0.500 | ug/L | 100 | 1.91 | 98.5 | 70-130 | 2.46 | 20 | |
| Barium, Total | 173 | 1.00 | ug/L | 100 | 85.1 | 88.2 | 70-130 | 0.931 | 20 | |
| Beryllium, Total | 94.1 | 0.500 | ug/L | 100 | ND | 94.1 | 70-130 | 0.453 | 20 | |



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## EPA 200.8 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4134 - EPA 200.8** | | | | | | | | | | |
| **Matrix Spike Dup (B5F4134-MSD1)** | **Source: 5230367-01** | | | **Prepared & Analyzed:** 6/5/2025 11:38:00AM | | | | | | |
| Cadmium, Total | 98.3 | 1.00 | ug/L | 100 | 0.0870 | 98.2 | 70-130 | 0.603 | 20 | |
| Chromium, Total | 97.1 | 1.00 | ug/L | 100 | 1.52 | 95.6 | 70-130 | 1.26 | 20 | |
| Copper, Total | 101 | 1.00 | ug/L | 100 | 6.68 | 94.4 | 70-130 | 1.97 | 20 | |
| Lead, Total | 97.1 | 0.500 | ug/L | 100 | 2.01 | 95.1 | 70-130 | 1.15 | 20 | |
| Nickel, Total | 98.1 | 2.00 | ug/L | 100 | 3.32 | 94.7 | 70-130 | 2.24 | 20 | |
| Selenium, Total | 95.2 | 2.00 | ug/L | 100 | 0.471 | 94.7 | 70-130 | 3.31 | 20 | |
| Silver, Total | 98.6 | 0.500 | ug/L | 100 | ND | 98.6 | 70-130 | 0.945 | 20 | |
| Thallium, Total | 95.4 | 0.500 | ug/L | 100 | 0.0440 | 95.3 | 70-130 | 1.04 | 20 | |
| Zinc, Total | 144 | 5.00 | ug/L | 100 | 49.9 | 94.0 | 70-130 | 1.53 | 20 | |
| **Batch B5F4151 - No Prep Micro** | | | | | | | | | | |
| **Blank (B5F4151-BLK1)** | | | | **Prepared & Analyzed:** 6/3/2025 4:37:00PM | | | | | | |
| E coli IDEXX | ND | 1 | mpn/100ml | | | | | | | |
| **Duplicate (B5F4151-DUP1)** | **Source: 5230618-01** | | | **Prepared & Analyzed:** 6/3/2025 4:37:00PM | | | | | | |
| E coli IDEXX | ND | 10 | mpn/100ml | | ND | | | | 200 | |
| **Batch B5F4159 - SM 4500 Norg C** | | | | | | | | | | |
| **Blank (B5F4159-BLK1)** | | | | **Prepared & Analyzed:** 6/5/2025 10:45:00AM | | | | | | |
| TKN | ND | 1.0 | mg/L | | | | | | | |
| **LCS (B5F4159-BS1)** | | | | **Prepared & Analyzed:** 6/5/2025 10:45:00AM | | | | | | |
| TKN | 10.3 | | mg/L | 10.0 | | 103 | 90-110 | | | |
| **Matrix Spike (B5F4159-MS1)** | **Source: 5230340-01** | | | **Prepared & Analyzed:** 6/5/2025 10:45:00AM | | | | | | |
| TKN | 11.3 | 1.0 | mg/L | 10.0 | 1.39 | 98.7 | 80-120 | | | |
| **Matrix Spike Dup (B5F4159-MSD1)** | **Source: 5230340-01** | | | **Prepared & Analyzed:** 6/5/2025 10:45:00AM | | | | | | |
| TKN | 10.9 | 1.0 | mg/L | 10.0 | 1.39 | 94.9 | 80-120 | 3.47 | 20 | |
| **Batch B5F4200 - EPA 200.7** | | | | | | | | | | |
| **Blank (B5F4200-BLK1)** | | | | **Prepared & Analyzed:** 6/5/2025 1:34:19PM | | | | | | |
| Total Phosphorus | ND | 0.0600 | mg/L | | | | | | | |
| **LCS (B5F4200-BS1)** | | | | **Prepared & Analyzed:** 6/5/2025 1:35:55PM | | | | | | |
| Total Phosphorus | 2.83 | 0.0600 | mg/L | 2.52 | | 112 | 85-115 | | | |
| **Matrix Spike (B5F4200-MS1)** | **Source: 5230398-01** | | | **Prepared & Analyzed:** 6/5/2025 1:40:43PM | | | | | | |
| Total Phosphorus | 7.16 | 0.0600 | mg/L | 2.52 | 4.71 | 97.1 | 70-130 | | | |



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## EPA 200.7 - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4200 - EPA 200.7** | | | | | | | | | | |
| **Matrix Spike Dup (B5F4200-MSD1)** | **Source: 5230398-01** | | | **Prepared & Analyzed:** 6/5/2025 1:42:19PM | | | | | | |
| Total Phosphorus | 6.50 | 0.0600 | mg/L | 2.52 | 4.71 | 71.2 | 70-130 | 9.56 | 20 | |
| **Batch B5F4233 - No Prep** | | | | | | | | | | |
| **Blank (B5F4233-BLK1)** | | | | **Prepared & Analyzed:** 6/4/2025 4:57:00PM | | | | | | |
| Chloride | ND | 5.0 | mg/L | | | | | | | |
| Nitrate as N | ND | 0.05 | mg/L | | | | | | | |
| Sulfate | ND | 4.0 | mg/L | | | | | | | |
| **LCS (B5F4233-BS1)** | | | | **Prepared & Analyzed:** 6/4/2025 4:57:00PM | | | | | | |
| Chloride | 23.7 | | mg/L | 25.0 | | 95.0 | 90-110 | | | |
| Nitrate as N | 1.3881 | | mg/L | 1.50 | | 92.5 | 90-110 | | | |
| Sulfate | 18.8 | | mg/L | 20.0 | | 94.2 | 90-110 | | | |
| **Matrix Spike (B5F4233-MS1)** | **Source: 5231290-01** | | | **Prepared & Analyzed:** 6/4/2025 4:57:00PM | | | | | | |
| Chloride | 233 | 5.0 | mg/L | 125 | 107 | 101 | 80-120 | | | |
| Nitrate as N | 33.4412 | 0.05 | mg/L | 7.50 | 26.8444 | 88.0 | 80-120 | | | |
| Sulfate | 137 | 4.0 | mg/L | 100 | 33.2 | 104 | 80-120 | | | |
| **Matrix Spike Dup (B5F4233-MSD1)** | **Source: 5231290-01** | | | **Prepared & Analyzed:** 6/4/2025 4:57:00PM | | | | | | |
| Chloride | 229 | 5.0 | mg/L | 125 | 107 | 97.7 | 80-120 | 1.55 | 20 | |
| Nitrate as N | 32.7405 | 0.05 | mg/L | 7.50 | 26.8444 | 78.6 | 80-120 | 2.12 | 20 | |
| Sulfate | 135 | 4.0 | mg/L | 100 | 33.2 | 101 | 80-120 | 1.98 | 20 | |
| **Batch B5F4249 - No Prep** | | | | | | | | | | |
| **Blank (B5F4249-BLK1)** | | | | **Prepared & Analyzed:** 6/5/2025 7:02:00AM | | | | | | |
| CBOD 5 | 0.629 | 2.0 | mg/L | | | | | | | 1 |
| **LCS (B5F4249-BS1)** | | | | **Prepared & Analyzed:** 6/5/2025 7:02:00AM | | | | | | |
| CBOD 5 | 136 | | mg/L | 198 | | 68.5 | 84.59-115.40 | | | 1, 13 |
| **Duplicate (B5F4249-DUP1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/5/2025 7:02:00AM | | | | | | |
| CBOD 5 | 3.30 | 2.0 | mg/L | | 2.61 | | | 23.5 | 30 | 1, 13 |
| **Batch B5F4283 - No Prep** | | | | | | | | | | |
| **Blank (B5F4283-BLK1)** | | | | **Prepared & Analyzed:** 6/5/2025 11:03:00AM | | | | | | |
| TSS | ND | 1.0 | mg/L | | | | | | | |
| **Duplicate (B5F4283-DUP1)** | **Source: 5231211-01** | | | **Prepared & Analyzed:** 6/5/2025 11:03:00AM | | | | | | |
| TSS | 8000 | 1.0 | mg/L | | 7800 | | | 2.53 | 10 | |



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## SM 4500 NH3 G - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4371 - No Prep** | | | | | | | | | | |
| **Blank (B5F4371-BLK1)** | | | | **Prepared & Analyzed:** 6/6/2025 8:15:00AM | | | | | | |
| Ammonia as N | ND | 0.1 | mg/L | | | | | | | |
| **LCS (B5F4371-BS1)** | | | | **Prepared & Analyzed:** 6/6/2025 8:15:00AM | | | | | | |
| Ammonia as N | 1.93 | | mg/L | 2.00 | | 96.7 | 90-110 | | | |
| **Matrix Spike (B5F4371-MS1)** | **Source: 5231261-01** | | | **Prepared & Analyzed:** 6/6/2025 8:15:00AM | | | | | | |
| Ammonia as N | 2.6 | 0.1 | mg/L | 2.50 | 0.05 | 102 | 80-120 | | | |
| **Matrix Spike Dup (B5F4371-MSD1)** | **Source: 5231261-01** | | | **Prepared & Analyzed:** 6/6/2025 8:15:00AM | | | | | | |
| Ammonia as N | 2.6 | 0.1 | mg/L | 2.50 | 0.05 | 103 | 80-120 | 1.17 | 20 | |
| **Batch B5F4411 - No Prep** | | | | | | | | | | |
| **Blank (B5F4411-BLK1)** | | | | **Prepared & Analyzed:** 6/6/2025 1:11:00PM | | | | | | |
| Phenol, low level | ND | 10.0 | ppb | | | | | | | |
| **LCS (B5F4411-BS1)** | | | | **Prepared & Analyzed:** 6/6/2025 1:11:00PM | | | | | | |
| Phenol, low level | 52.6 | | ppb | 50.0 | | 105 | 80-120 | | | |
| **Matrix Spike (B5F4411-MS1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/6/2025 1:11:00PM | | | | | | |
| Phenol, low level | ND | 10.0 | ppb | 50.0 | ND | | 80-120 | | | 23 |
| **Matrix Spike Dup (B5F4411-MSD1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/6/2025 1:11:00PM | | | | | | |
| Phenol, low level | ND | 10.0 | ppb | 50.0 | ND | | 80-120 | | 20 | |
| **Batch B5F4898 - No Prep** | | | | | | | | | | |
| **Blank (B5F4898-BLK1)** | | | | **Prepared & Analyzed:** 6/11/2025 10:59:00AM | | | | | | |
| Alkalinity | ND | 20.0 | mg CaCO3/L | | | | | | | |
| **LCS (B5F4898-BS1)** | | | | **Prepared & Analyzed:** 6/11/2025 10:59:00AM | | | | | | |
| Alkalinity | 44.0 | | mg CaCO3/L | 50.0 | | 88.0 | 80-120 | | | |
| **Duplicate (B5F4898-DUP1)** | **Source: 5230588-01** | | | **Prepared & Analyzed:** 6/11/2025 10:59:00AM | | | | | | |
| Alkalinity | 216 | 20.0 | mg CaCO3/L | | 220 | | | 1.83 | 20 | |
| **Batch B5F4932 - No Prep** | | | | | | | | | | |
| **Blank (B5F4932-BLK1)** | | | | **Prepared & Analyzed:** 6/10/2025 9:30:00AM | | | | | | |
| Oil Grease, HEM | ND | 5.0 | mg/L | | | | | | | |
| **LCS (B5F4932-BS1)** | | | | **Prepared & Analyzed:** 6/10/2025 9:30:00AM | | | | | | |
| Oil Grease, HEM | 40.1 | 5.0 | mg/L | 40.0 | | 100 | 78-114 | | | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved

EASTEX ENVIRONMENTAL LABS INC.

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NELAP ACCREDITED TNI LABORATORY

## EPA 1664A - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F4932 - No Prep** | | | | | | | | | | |
| **LCS Dup (B5F4932-BSD1)** | | | | **Prepared & Analyzed:** 6/10/2025 9:30:00AM | | | | | | |
| Oil Grease, HEM | 40.0 | 5.0 | mg/L | 40.0 | | 100 | 78-114 | 0.250 | 18 | |
| **Matrix Spike (B5F4932-MS1)** | **Source: 5240779-01** | | | **Prepared & Analyzed:** 6/10/2025 9:30:00AM | | | | | | |
| Oil Grease, HEM | 40.9 | 5.1 | mg/L | 40.0 | 3.57 | 93.3 | 78-114 | | | |
| **Batch B5F4937 - No Prep** | | | | | | | | | | |
| **Blank (B5F4937-BLK1)** | | | | **Prepared & Analyzed:** 6/10/2025 1:03:00PM | | | | | | |
| TDS | ND | 10.0 | mg/L | | | | | | | |
| **LCS (B5F4937-BS1)** | | | | **Prepared & Analyzed:** 6/10/2025 1:03:00PM | | | | | | |
| TDS | 310 | | mg/L | 300 | | 103 | 80-120 | | | |
| **Duplicate (B5F4937-DUP1)** | **Source: 5230566-01** | | | **Prepared & Analyzed:** 6/10/2025 1:03:00PM | | | | | | |
| TDS | 1540 | 10.0 | mg/L | | 1410 | | | 8.81 | 10 | |
| **Batch B5F5085 - No Prep** | | | | | | | | | | |
| **Blank (B5F5085-BLK1)** | | | | **Prepared & Analyzed:** 6/11/2025 2:52:00PM | | | | | | |
| Cyanide | ND | 5.00 | ug/L | | | | | | | |
| **LCS (B5F5085-BS1)** | | | | **Prepared & Analyzed:** 6/11/2025 2:52:00PM | | | | | | |
| Cyanide | 36.6 | | ug/L | 40.0 | | 91.6 | 90-110 | | | |
| **Matrix Spike (B5F5085-MS1)** | **Source: 5190102-02** | | | **Prepared & Analyzed:** 6/11/2025 2:52:00PM | | | | | | |
| Cyanide | 37.8 | 5.00 | ug/L | 40.0 | ND | 94.6 | 90-110 | | | |
| **Matrix Spike Dup (B5F5085-MSD1)** | **Source: 5190102-02** | | | **Prepared & Analyzed:** 6/11/2025 2:52:00PM | | | | | | |
| Cyanide | 36.7 | 5.00 | ug/L | 40.0 | ND | 91.8 | 90-110 | 2.94 | 20 | |
| **Batch B5F5957 - No Prep** | | | | | | | | | | |
| **Blank (B5F5957-BLK1)** | | | | **Prepared & Analyzed:** 6/20/2025 7:52:00AM | | | | | | |
| Conductivity | ND | 10.0 | µmhos/cm @25C | | | | | | | |
| **LCS (B5F5957-BS1)** | | | | **Prepared & Analyzed:** 6/20/2025 7:52:00AM | | | | | | |
| Conductivity | 1000 | | µmhos/cm @25C | 1000 | | 100 | 80-120 | | | |
| **Duplicate (B5F5957-DUP1)** | **Source: 5230892-02** | | | **Prepared & Analyzed:** 6/20/2025 7:52:00AM | | | | | | |
| Conductivity | 856 | 10.0 | µmhos/cm @25C | | 852 | | | 0.468 | 20 | |



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NELAP ACCREDITED TNI LABORATORY

## SM 3500 Cr B - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F6327 - No Prep** | | | | | | | | | | |
| **Blank (B5F6327-BLK1)** | | | | **Prepared & Analyzed:** 6/19/2025 10:04:00AM | | | | | | |
| Chromium, (VI) | ND | 3 | ug/L | | | | | | | |
| **LCS (B5F6327-BS1)** | | | | **Prepared & Analyzed:** 6/19/2025 10:04:00AM | | | | | | |
| Chromium, (VI) | 18.326 | | ug/L | 20.0 | | 91.6 | 90-110 | | | |
| **Matrix Spike (B5F6327-MS1)** | **Source: 5221202-01** | | | **Prepared & Analyzed:** 6/19/2025 10:04:00AM | | | | | | |
| Chromium, (VI) | 44.67 | 3 | ug/L | 44.6 | ND | 100 | 80-120 | | | |
| **Matrix Spike Dup (B5F6327-MSD1)** | **Source: 5221202-01** | | | **Prepared & Analyzed:** 6/19/2025 10:04:00AM | | | | | | |
| Chromium, (VI) | 44.67 | 3 | ug/L | 44.6 | ND | 100 | 80-120 | 0.00 | 20 | |



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## Notes and Definitions

| | |
|---|---|
| 53 | RPD Recovery outside acceptance limits due to matrix interference. |
| 23 | Spike recovery outside of acceptance limits due to matrix interference. |
| 13 | LCS associated with sample batch outside of acceptance limits. |
| 1 | Dilution water blank > 0.20 mg/L DO uptake. |
| 0 | Sample not properly preserved. |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |



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eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Daniel Bowen
Eastex Environmental Laboratory Inc.
PO BOX 1089
Coldspring, Texas 77331
Generated 6/27/2025 3:35:05 PM

## JOB DESCRIPTION

Chimney Hill Long Permit Renewal Effluent PR Comp
PO 060625D

## JOB NUMBER

860-102871-1

Eurofins Houston
4145 Greenbriar Dr
Stafford TX 77477

See page two for job notes and contact information.



my EOL

# Eurofins Houston

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



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Authorized for release by
Sylvia Garza, Project Manager
Sylvia.Garza@et.eurofinsus.com
(832)544-2004

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# Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| *+ | LCS and/or LCSD is outside acceptance limits, high biased. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| I | Value is EMPC (estimated maximum possible concentration). |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| *+ | LCS and/or LCSD is outside acceptance limits, high biased. |
| *1 | LCS/LCSD RPD exceeds control limits. |
| H | Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements. |
| p | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported. |
| S1+ | Surrogate recovery exceeds control limits, high biased. |
| U | Indicates the analyte was analyzed for but not detected. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

**Job ID: 860-102871-1** **Eurofins Houston**

**Job Narrative**
**860-102871-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 6/7/2025 12:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

**GC/MS Semi VOA**
Method 625.1_QQQ: The continuing calibration verification (CCV) associated with batch 860-242399 recovered above the upper control limit for 2,4-Dinitrophenol, Pentachlorophenol, Hexachlorocyclopentadiene, 4,6-Dinitro-2-methylphenol and 2,6-Dinitrotoluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCVIS 860-242399/2).

Method 625.1_QQQ: The matrix spike (MS) recoveries for preparation batch 860-241035 and analytical batch 860-242399 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 625.1_QQQ: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 860-241035 and analytical batch 860-241542 recovered outside control limits for the following analytes: Methyl parathion, Disulfoton and Ethyl Parathion. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 625.1_QQQ: The continuing calibration verification (CCV) associated with batch 860-241542 recovered above the upper control limit for Benzoic acid, Pentachlorophenol, Di-n-octyl phthalate, 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, 1,2-Diphenylhydrazine and Butyl benzyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCVIS 860-241542/2).

Method D7065_11: The following samples: Chimney Hill Long Permit Renewal Effluent PR Comp (860-102871-1) in preparation batch 280-699766 were decanted prior to preparation.

Method D7065_11: The reference method requires samples to be preserved to a pH of 1-2. The following sample Chimney Hill Long Permit Renewal Effluent PR Comp (860-102871-1) in preparation batch 280-699766 was received with insufficient preservation at a pH of 6. The sample was preserved to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**GC Semi VOA**
Method 615_MOD: The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: Chimney Hill Long Permit Renewal Effluent PR Comp (860-102871-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 615_MOD: The continuing calibration verification (CCV) associated with batch 860-245141 recovered above the upper control limit for Dicamba, Dichlorprop, Dinoseb, Pentachlorophenol and Silvex (2,4,5-TP). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCVIS 860-245141/2).

Method 615_MOD: The laboratory control sample (LCS) for preparation batch 860-244541 and analytical batch 860-245141 recovered outside control limits for the following analytes: Dicamba, Dinoseb and Silvex (2,4,5-TP). These analytes were biased

**Job ID: 860-102871-1 (Continued)** **Eurofins Houston**

high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 615_MOD: The laboratory control sample duplicate (LCSD) for preparation batch 860-244541 and analytical batch 860-245141 recovered outside control limits for the following analytes: 2,4,5-T, Dicamba, Dinoseb and Silvex (2,4,5-TP). These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 615_MOD: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-244541 and analytical batch 860-245141 recovered outside control limits for the following analytes: Hexachlorophene.

Method 615_MOD: The following sample was prepared outside of preparation holding time due to analysis requested out of the holding time : Chimney Hill Long Permit Renewal Effluent PR Comp (860-102871-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Pesticides/PCBs**
Method 608.3: The surrogate recovery for the blank associated with preparation batch 860-241078 and analytical batch 860-241050 was outside the upper control limits.
(MB 860-241078/1-A)

Method 608.3: The surrogate recovery for the LCS/LCSD associated with preparation batch 860-241078 and analytical batch 860-241050 was outside the upper control limits.
(LCS 860-241078/2-A), (LCS 860-241078/4-A) and (LCSD 860-241078/3-A)

Method 608.3: The laboratory control sample (LCS) for preparation batch 860-241078 and analytical batch 860-241050 recovered outside control limits for the following analytes: Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, gamma-BHC (Lindane), trans-Chlordane, Heptachlor, Heptachlor epoxide, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Aldrin, alpha-BHC, cis-Chlordane, beta-BHC, delta-BHC, Dieldrin, Endosulfan I and Endosulfan II. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 608.3: The laboratory control sample duplicate (LCSD) for preparation batch 860-241078 and analytical batch 860-241050 recovered outside control limits for the following analytes: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Aldrin, alpha-BHC, cis-Chlordane, beta-BHC, delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, gamma-BHC (Lindane), trans-Chlordane, Heptachlor, Heptachlor epoxide and Methoxychlor. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 608.3: The continuing calibration verification (CCV) associated with batch 860-241050 recovered above the upper control limit for Mirex. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 860-241050/5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp — Lab Sample ID: 860-102871-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated biphenyls, Total | NC | | 0.000575 | 0.000287 | mg/L | 1 | | 608.3 | Total/NA |

## Client Sample ID: Mercury LL Day 1 — Lab Sample ID: 860-102871-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00155 | | 0.000500 | 0.000200 | ug/L | 1 | | 1631E | Total/NA |

## Client Sample ID: Mercury LL Day 1 Blank — Lab Sample ID: 860-102871-3

No Detections.

## Client Sample ID: Mercury LL Day 2 — Lab Sample ID: 860-102871-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00174 | | 0.000500 | 0.000200 | ug/L | 1 | | 1631E | Total/NA |

## Client Sample ID: Mercury LL Day 2 Blank — Lab Sample ID: 860-102871-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00190 | | 0.000500 | 0.000200 | ug/L | 1 | | 1631E | Total/NA |

## Client Sample ID: Mercury LL Day 3 — Lab Sample ID: 860-102871-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00132 | | 0.000500 | 0.000200 | ug/L | 1 | | 1631E | Total/NA |

## Client Sample ID: Mercury LL Day 3 Blank — Lab Sample ID: 860-102871-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00152 | | 0.000500 | 0.000200 | ug/L | 1 | | 1631E | Total/NA |

This Detection Summary does not include radiochemical test results.

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

**Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp**

**Lab Sample ID: 860-102871-1**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

**Method: EPA 625.1 - Semivolatile Organic Compounds (GC-MS/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Azinphos-methyl | <0.0162 | U | 0.0572 | 0.0162 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Diazinon | <0.0149 | U | 0.114 | 0.0149 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Demeton, Total | <0.0168 | U | 0.0572 | 0.0168 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 1,2,4-Trichlorobenzene | <0.0767 | U F1 | 0.572 | 0.0767 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Disulfoton | <0.203 | U *+ | 0.572 | 0.203 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 1,2-Diphenylhydrazine | <0.287 | U | 0.572 | 0.287 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Malathion | <0.0150 | U | 0.0572 | 0.0150 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 1,2-Dichlorobenzene | <0.0942 | U F1 | 0.572 | 0.0942 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Methyl parathion | <0.320 | U *+ | 0.572 | 0.320 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 1,3-Dichlorobenzene | <0.102 | U | 0.572 | 0.102 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Ethyl Parathion | <0.0503 | U *+ | 0.114 | 0.0503 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 1,4-Dichlorobenzene | <0.0780 | U F1 | 0.572 | 0.0780 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,4,5-Trichlorophenol | <0.143 | U | 0.572 | 0.143 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,4,6-Trichlorophenol | <0.231 | U | 0.572 | 0.231 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,4-Dichlorophenol | <0.140 | U | 0.572 | 0.140 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,4-Dimethylphenol | <0.192 | U | 0.572 | 0.192 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,4-Dinitrophenol | <0.311 | U | 5.72 | 0.311 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,4-Dinitrotoluene | <0.205 | U F1 | 0.572 | 0.205 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2,6-Dinitrotoluene | <0.116 | U F1 | 0.572 | 0.116 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2-Chloronaphthalene | <0.379 | U F1 | 0.572 | 0.379 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2-Chlorophenol | <0.0757 | U | 0.572 | 0.0757 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2-Methylnaphthalene | <0.0603 | U | 0.572 | 0.0603 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2-Methylphenol | <0.105 | U | 0.572 | 0.105 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2-Nitroaniline | <0.149 | U | 0.572 | 0.149 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 2-Nitrophenol | <0.136 | U | 0.572 | 0.136 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 3 & 4 Methylphenol | <0.139 | U | 0.572 | 0.139 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 3,3'-Dichlorobenzidine | <0.183 | U | 0.572 | 0.183 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 3-Nitroaniline | <0.267 | U | 1.14 | 0.267 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 4,6-Dinitro-2-methylphenol | <1.00 | U | 2.86 | 1.00 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 4-Bromophenyl phenyl ether | <0.100 | U | 0.572 | 0.100 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 4-Chloro-3-methylphenol | <0.104 | U | 0.572 | 0.104 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 4-Chlorophenyl phenyl ether | <0.131 | U | 0.572 | 0.131 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 4-Nitroaniline | <0.363 | U | 1.14 | 0.363 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| 4-Nitrophenol | <0.440 | U F1 | 1.14 | 0.440 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Acenaphthene | <0.108 | U | 0.572 | 0.108 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Acenaphthylene | <0.0998 | U | 0.572 | 0.0998 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Aniline | <0.0580 | U | 0.572 | 0.0580 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Anthracene | <0.0939 | U | 0.572 | 0.0939 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzo[a]anthracene | <0.0822 | U | 0.286 | 0.0822 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzo[a]pyrene | <0.0701 | U | 0.286 | 0.0701 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzo[b]fluoranthene | <0.0665 | U | 0.572 | 0.0665 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzo[g,h,i]perylene | <0.0346 | U | 0.572 | 0.0346 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzo[k]fluoranthene | <0.0473 | U | 0.572 | 0.0473 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzoic acid | <14.3 | U | 14.3 | 14.3 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Butyl benzyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Bis(2-chloroethoxy)methane | <0.0976 | U | 0.572 | 0.0976 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Bis(2-chloroethyl)ether | <0.215 | U | 0.572 | 0.215 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |

**Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp** **Lab Sample ID: 860-102871-1**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

**Method: EPA 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,2'-oxybis[1-chloropropane] | <0.128 | U | 0.572 | 0.128 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Bis(2-ethylhexyl) phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Chrysene | <0.0817 | U | 0.572 | 0.0817 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Dibenz(a,h)anthracene | <0.0510 | U | 0.114 | 0.0510 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Dibenzofuran | <0.107 | U | 0.572 | 0.107 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Diethyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Dimethyl phthalate | <1.43 | U F1 | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Di-n-butyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Di-n-octyl phthalate | <1.43 | U F1 | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Fluoranthene | <0.0884 | U | 0.572 | 0.0884 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Fluorene | <0.0950 | U | 0.572 | 0.0950 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Hexachlorobenzene | <0.0976 | U | 0.572 | 0.0976 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Hexachlorobutadiene | <0.103 | U F1 | 0.572 | 0.103 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Hexachlorocyclopentadiene | <0.219 | U | 1.14 | 0.219 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Hexachloroethane | <0.102 | U F1 | 0.572 | 0.102 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.100 | U | 0.572 | 0.100 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Isophorone | <0.107 | U | 0.572 | 0.107 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Naphthalene | <0.0946 | U | 0.572 | 0.0946 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Nitrobenzene | <0.0737 | U | 0.572 | 0.0737 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| N-Nitrosodi-n-propylamine | <0.119 | U | 0.572 | 0.119 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| N-Nitrosodiphenylamine | <0.145 | U | 0.572 | 0.145 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Pentachlorophenol | <0.199 | U | 0.572 | 0.199 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Phenanthrene | <0.134 | U | 0.572 | 0.134 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Phenol | <1.14 | U | 1.14 | 1.14 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Pyrene | <0.0850 | U | 0.572 | 0.0850 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Pyridine | <1.44 | U F1 | 2.86 | 1.44 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Benzidine | <0.447 | U | 2.86 | 0.447 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| N-Nitrosodiethylamine | <0.539 | U | 1.14 | 0.539 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| N-Nitrosodimethylamine | <0.100 | U F1 | 0.572 | 0.100 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Dicofol | <0.0572 | U | 0.0572 | 0.0572 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |
| Mirex | <0.0572 | U | 0.0572 | 0.0572 | ug/L | | 06/09/25 06:45 | 06/14/25 02:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol (Surr)* | *112* | | *35 - 130* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *2-Fluorobiphenyl (Surr)* | *103* | | *43 - 130* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *2-Fluorophenol (Surr)* | *44* | | *19 - 120* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *Nitrobenzene-d5 (Surr)* | *125* | | *37 - 133* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *p-Terphenyl-d14 (Surr)* | *101* | | *47 - 130* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *2-Fluorobiphenyl* | *103* | | *43 - 130* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *2-Fluorophenol (Surr)* | *44* | | *19 - 120* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *Nitrobenzene-d5 (Surr)* | *125* | | *37 - 133* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *Phenol-d5 (Surr)* | *22* | | *8 - 124* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *p-Terphenyl-d14 (Surr)* | *101* | | *47 - 130* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *112* | | *35 - 130* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |
| *Phenol-d5 (Surr)* | *22* | | *8 - 124* | *06/09/25 06:45* | *06/14/25 02:37* | *1* |

**Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp**
**Lab Sample ID: 860-102871-1**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

## Method: ASTM D7065-11 - Determination of Nonylphenols

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nonylphenol | <2500 | U | 5000 | 2500 | ng/L | | 06/11/25 09:41 | 06/11/25 16:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-nonylphenol (Surr)* | *70* | | *58 - 115* | *06/11/25 09:41* | *06/11/25 16:35* | *1* |

## Method: EPA 608.3 - Organochlorine Pesticides/PCBs in Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | <0.0000599 | U | 0.000287 | 0.0000599 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| 4,4'-DDD | <0.0000205 | U *+ | 0.0000575 | 0.0000205 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| PCB-1221 | <0.0000599 | U | 0.000575 | 0.0000599 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| 4,4'-DDE | <0.0000185 | U *+ | 0.0000575 | 0.0000185 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| PCB-1232 | <0.0000599 | U | 0.000575 | 0.0000599 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| 4,4'-DDT | <0.0000206 | U *+ | 0.0000575 | 0.0000206 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Aldrin | <0.0000182 | U *+ | 0.0000575 | 0.0000182 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| PCB-1242 | <0.0000599 | U | 0.000287 | 0.0000599 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| alpha-BHC | <0.0000183 | U *+ | 0.0000575 | 0.0000183 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| PCB-1248 | <0.0000599 | U | 0.000575 | 0.0000599 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| cis-Chlordane | <0.0000216 | U *+ | 0.0000575 | 0.0000216 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| PCB-1254 | <0.0000753 | U | 0.000575 | 0.0000753 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| PCB-1260 | <0.0000753 | U | 0.000287 | 0.0000753 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| beta-BHC | <0.0000198 | U *+ | 0.0000575 | 0.0000198 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| **Polychlorinated biphenyls, Total** | **NC** | | 0.000575 | 0.000287 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Chlordane (technical) | <0.000224 | U | 0.00115 | 0.000224 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| delta-BHC | <0.0000100 | U *+ | 0.0000575 | 0.0000100 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Dicofol | <0.0000287 | U | 0.0000287 | 0.0000287 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Dieldrin | <0.0000199 | U *+ | 0.0000575 | 0.0000199 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Endosulfan I | <0.0000213 | U *+ | 0.0000575 | 0.0000213 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Endosulfan II | <0.0000203 | U *+ | 0.0000575 | 0.0000203 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Endosulfan sulfate | <0.0000175 | U *+ | 0.0000575 | 0.0000175 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Endrin | <0.0000191 | U *+ | 0.0000575 | 0.0000191 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Endrin aldehyde | <0.0000192 | U *+ | 0.0000575 | 0.0000192 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Endrin ketone | <0.0000196 | U *+ | 0.0000575 | 0.0000196 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| gamma-BHC (Lindane) | <0.0000195 | U *+ | 0.0000575 | 0.0000195 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| trans-Chlordane | <0.0000217 | U *+ | 0.0000575 | 0.0000217 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Heptachlor | <0.0000319 | U *+ | 0.0000575 | 0.0000319 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Heptachlor epoxide | <0.0000209 | U *+ | 0.0000575 | 0.0000209 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Methoxychlor | <0.0000214 | U *+ | 0.0000575 | 0.0000214 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Mirex | <0.0000287 | U | 0.0000287 | 0.0000287 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |
| Toxaphene | <0.000387 | U | 0.00115 | 0.000387 | mg/L | | 06/09/25 09:59 | 06/09/25 17:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *DCB Decachlorobiphenyl (Surr)* | *73* | | *45 - 115* | *06/09/25 09:59* | *06/09/25 17:51* | *1* |
| *Tetrachloro-m-xylene* | *103* | | *41 - 110* | *06/09/25 09:59* | *06/09/25 17:51* | *1* |

## Method: EPA-01 615 - Herbicides (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-D | <0.0000540 | U H | 0.000200 | 0.0000540 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| 2,4-DB | <0.0000494 | U H | 0.000200 | 0.0000494 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |

## Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp

**Lab Sample ID: 860-102871-1**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

### Method: EPA-01 615 - Herbicides (GC) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Silvex (2,4,5-TP) | <0.0000423 | U H *+ | 0.000200 | 0.0000423 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| 2,4,5-T | <0.0000394 | U H *+ | 0.000200 | 0.0000394 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| Dalapon | <0.0000477 | U H | 0.000200 | 0.0000477 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| Dicamba | <0.0000424 | U H *+ | 0.000200 | 0.0000424 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| Dichlorprop | <0.0000528 | U H | 0.000200 | 0.0000528 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| Dinoseb | <0.0000344 | U H *+ | 0.000200 | 0.0000344 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| MCPA | <0.00527 | U H | 0.0200 | 0.00527 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| MCPP | <0.00998 | U H | 0.0200 | 0.00998 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| Pentachlorophenol | <0.0000444 | U H | 0.000200 | 0.0000444 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |
| Hexachlorophene | <0.000810 | U H *1 | 0.00501 | 0.000810 | mg/L | | 06/24/25 13:10 | 06/27/25 02:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4-Dichlorophenylacetic acid* | *85* | *p* | *45 - 150* | *06/24/25 13:10* | *06/27/25 02:37* | *1* |

### Method: EPA-01 632 - Carbamate and Urea Pesticides (HPLC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbaryl | <1.85 | U | 5.00 | 1.85 | ug/L | | 06/09/25 13:43 | 06/12/25 02:32 | 1 |
| Diuron | <0.0514 | U | 0.0900 | 0.0514 | ug/L | | 06/09/25 13:43 | 06/12/25 02:32 | 1 |

## Client Sample ID: Mercury LL Day 1

**Lab Sample ID: 860-102871-2**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

### Method: EPA 1631E - Mercury, Low Level (CVAFS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.00155** | | 0.000500 | 0.000200 | ug/L | | | 06/11/25 14:24 | 1 |

## Client Sample ID: Mercury LL Day 1 Blank

**Lab Sample ID: 860-102871-3**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

### Method: EPA 1631E - Mercury, Low Level (CVAFS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 13:59 | 1 |

## Client Sample ID: Mercury LL Day 2

**Lab Sample ID: 860-102871-4**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

### Method: EPA 1631E - Mercury, Low Level (CVAFS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.00174** | | 0.000500 | 0.000200 | ug/L | | | 06/11/25 14:28 | 1 |

## Client Sample ID: Mercury LL Day 2 Blank

**Lab Sample ID: 860-102871-5**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

### Method: EPA 1631E - Mercury, Low Level (CVAFS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.00190** | | 0.000500 | 0.000200 | ug/L | | | 06/11/25 14:33 | 1 |

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

**Client Sample ID: Mercury LL Day 3**
**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Lab Sample ID: 860-102871-6**
**Matrix: Water**

**Method: EPA 1631E - Mercury, Low Level (CVAFS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00132 | | 0.000500 | 0.000200 | ug/L | | | 06/11/25 14:38 | 1 |

**Client Sample ID: Mercury LL Day 3 Blank**
**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Lab Sample ID: 860-102871-7**
**Matrix: Water**

**Method: EPA 1631E - Mercury, Low Level (CVAFS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00152 | | 0.000500 | 0.000200 | ug/L | | | 06/11/25 14:43 | 1 |

# Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

**Matrix: Water** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | TBP | TBP | FBP | FBP | 2FP | 2FP | NBZ | NBZ |
| Lab Sample ID | Client Sample ID | (35-130) | (35-130) | (43-130) | (43-130) | (19-120) | (19-120) | (37-133) | (37-133) |
| 860-102871-1 | Chimney Hill Long Permit Renev | 112 | 112 | 103 | 103 | 44 | 44 | 125 | 125 |

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | TPHd14 | TPHd14 | PHL | PHL |
| Lab Sample ID | Client Sample ID | (47-130) | (47-130) | (8-124) | (8-124) |
| 860-102871-1 | Chimney Hill Long Permit Renev | 101 | 101 | 22 | 22 |

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

**Matrix: Water** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TBP | FBP | FBP | 2FP | NBZ | TPHd14 | PHL |
| Lab Sample ID | Client Sample ID | (35-130) | (43-130) | (43-130) | (19-120) | (37-133) | (47-130) | (8-124) |
| 860-102871-1 MS | Chimney Hill Long Permit Renev | 129 | 101 | 101 | 49 | 129 | 98 | 27 |
| LCS 860-241035/2-A | Lab Control Sample | 68 | 61 | 61 | 64 | 59 | 68 | 61 |
| LCS 860-241035/2-A | Lab Control Sample | 81 | 82 | 82 | 95 | 72 | 79 | 84 |
| LCS 860-241035/4-A | Lab Control Sample | 59 | 59 | 59 | 64 | 59 | 68 | 63 |
| LCSD 860-241035/3-A | Lab Control Sample Dup | 66 | 58 | 58 | 65 | 60 | 67 | 64 |
| LCSD 860-241035/3-A | Lab Control Sample Dup | 76 | 82 | 82 | 95 | 70 | 79 | 80 |
| LCSD 860-241035/5-A | Lab Control Sample Dup | 60 | 60 | 60 | 68 | 67 | 75 | 66 |
| MB 860-241035/1-A | Method Blank | 55 | 56 | 56 | 61 | 54 | 64 | 57 |

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

## Method: D7065-11 - Determination of Nonylphenols

**Matrix: Water** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | 4NPH |
| Lab Sample ID | Client Sample ID | (58-115) |
| 860-102871-1 | Chimney Hill Long Permit Renev | 70 |
| LCS 280-699766/2-A | Lab Control Sample | 80 |
| LCSD 280-699766/3-A | Lab Control Sample Dup | 76 |
| MB 280-699766/1-A | Method Blank | 78 |

**Surrogate Legend**

4NPH = 4-nonylphenol (Surr)

# Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Method: 608.3 - Organochlorine Pesticides/PCBs in Water

**Matrix: Water** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | DCB2 | TCX2 |
| Lab Sample ID | Client Sample ID | (45-115) | (41-110) |
| 860-102871-1 | Chimney Hill Long Permit Renev | 73 | 103 |
| LCS 860-241078/2-A | Lab Control Sample | 112 | 115 S1+ |
| LCS 860-241078/4-A | Lab Control Sample | 101 | 112 S1+ |
| LCSD 860-241078/3-A | Lab Control Sample Dup | 111 | 113 S1+ |
| LCSD 860-241078/5-A | Lab Control Sample Dup | 112 | 110 |
| MB 860-241078/1-A | Method Blank | 126 S1+ | 100 |

**Surrogate Legend**

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene

## Method: 615 - Herbicides (GC)

**Matrix: Water** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCPAA2 |
| Lab Sample ID | Client Sample ID | (45-150) |
| 860-102871-1 | Chimney Hill Long Permit Renev | 85 p |

**Surrogate Legend**

DCPAA = 2,4-Dichlorophenylacetic acid

## Method: 615 - Herbicides (GC)

**Matrix: Water** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCPAA1 |
| Lab Sample ID | Client Sample ID | (45-150) |
| LCS 860-244541/2-A | Lab Control Sample | 80 |
| LCS 860-244541/4-A | Lab Control Sample | 88 |
| LCSD 860-244541/3-A | Lab Control Sample Dup | 82 |
| LCSD 860-244541/5-A | Lab Control Sample Dup | 136 |
| MB 860-244541/1-A | Method Blank | 81 |

**Surrogate Legend**

DCPAA = 2,4-Dichlorophenylacetic acid

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

**Lab Sample ID: MB 860-241035/1-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Azinphos-methyl | <0.0162 | U | 0.0571 | 0.0162 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Diazinon | <0.0148 | U | 0.114 | 0.0148 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Demeton, Total | <0.0168 | U | 0.0571 | 0.0168 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 1,2,4-Trichlorobenzene | <0.0766 | U | 0.571 | 0.0766 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Disulfoton | <0.203 | U | 0.571 | 0.203 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 1,2-Diphenylhydrazine | <0.286 | U | 0.571 | 0.286 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Malathion | <0.0150 | U | 0.0571 | 0.0150 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 1,2-Dichlorobenzene | <0.0941 | U | 0.571 | 0.0941 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Methyl parathion | <0.319 | U | 0.571 | 0.319 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 1,3-Dichlorobenzene | <0.102 | U | 0.571 | 0.102 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Ethyl Parathion | <0.0502 | U | 0.114 | 0.0502 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 1,4-Dichlorobenzene | <0.0779 | U | 0.571 | 0.0779 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,4,5-Trichlorophenol | <0.143 | U | 0.571 | 0.143 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,4,6-Trichlorophenol | <0.231 | U | 0.571 | 0.231 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,4-Dichlorophenol | <0.140 | U | 0.571 | 0.140 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,4-Dimethylphenol | <0.192 | U | 0.571 | 0.192 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,4-Dinitrophenol | <0.311 | U | 5.71 | 0.311 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,4-Dinitrotoluene | <0.205 | U | 0.571 | 0.205 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2,6-Dinitrotoluene | <0.116 | U | 0.571 | 0.116 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2-Chloronaphthalene | <0.378 | U | 0.571 | 0.378 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2-Chlorophenol | <0.0756 | U | 0.571 | 0.0756 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2-Methylnaphthalene | <0.0603 | U | 0.571 | 0.0603 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2-Methylphenol | <0.105 | U | 0.571 | 0.105 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2-Nitroaniline | <0.149 | U | 0.571 | 0.149 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 2-Nitrophenol | <0.136 | U | 0.571 | 0.136 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 3 & 4 Methylphenol | <0.139 | U | 0.571 | 0.139 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 3,3'-Dichlorobenzidine | <0.183 | U | 0.571 | 0.183 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 3-Nitroaniline | <0.266 | U | 1.14 | 0.266 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 4,6-Dinitro-2-methylphenol | <1.00 | U | 2.86 | 1.00 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 4-Bromophenyl phenyl ether | <0.100 | U | 0.571 | 0.100 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 4-Chloro-3-methylphenol | <0.104 | U | 0.571 | 0.104 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 4-Chlorophenyl phenyl ether | <0.130 | U | 0.571 | 0.130 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 4-Nitroaniline | <0.363 | U | 1.14 | 0.363 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| 4-Nitrophenol | <0.440 | U | 1.14 | 0.440 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Acenaphthene | <0.107 | U | 0.571 | 0.107 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Acenaphthylene | <0.0996 | U | 0.571 | 0.0996 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Aniline | <0.0580 | U | 0.571 | 0.0580 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Anthracene | <0.0938 | U | 0.571 | 0.0938 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzo[a]anthracene | <0.0821 | U | 0.286 | 0.0821 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzo[a]pyrene | <0.0700 | U | 0.286 | 0.0700 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzo[b]fluoranthene | <0.0664 | U | 0.571 | 0.0664 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzo[g,h,i]perylene | <0.0345 | U | 0.571 | 0.0345 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzo[k]fluoranthene | <0.0473 | U | 0.571 | 0.0473 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzoic acid | <14.3 | U | 14.3 | 14.3 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Butyl benzyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Bis(2-chloroethoxy)methane | <0.0974 | U | 0.571 | 0.0974 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Bis(2-chloroethyl)ether | <0.214 | U | 0.571 | 0.214 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: MB 860-241035/1-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,2'-oxybis[1-chloropropane] | <0.128 | U | 0.571 | 0.128 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Bis(2-ethylhexyl) phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Chrysene | <0.0815 | U | 0.571 | 0.0815 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Dibenz(a,h)anthracene | <0.0509 | U | 0.114 | 0.0509 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Dibenzofuran | <0.107 | U | 0.571 | 0.107 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Diethyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Dimethyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Di-n-butyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Di-n-octyl phthalate | <1.43 | U | 2.86 | 1.43 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Fluoranthene | <0.0883 | U | 0.571 | 0.0883 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Fluorene | <0.0948 | U | 0.571 | 0.0948 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Hexachlorobenzene | <0.0975 | U | 0.571 | 0.0975 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Hexachlorobutadiene | <0.103 | U | 0.571 | 0.103 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Hexachlorocyclopentadiene | <0.218 | U | 1.14 | 0.218 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Hexachloroethane | <0.102 | U | 0.571 | 0.102 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.100 | U | 0.571 | 0.100 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Isophorone | <0.107 | U | 0.571 | 0.107 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Naphthalene | <0.0944 | U | 0.571 | 0.0944 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Nitrobenzene | <0.0736 | U | 0.571 | 0.0736 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| N-Nitrosodi-n-propylamine | <0.119 | U | 0.571 | 0.119 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| N-Nitrosodiphenylamine | <0.145 | U | 0.571 | 0.145 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Pentachlorophenol | <0.199 | U | 0.571 | 0.199 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Phenanthrene | <0.134 | U | 0.571 | 0.134 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Phenol | <1.14 | U | 1.14 | 1.14 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Pyrene | <0.0849 | U | 0.571 | 0.0849 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Pyridine | <1.44 | U | 2.86 | 1.44 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Benzidine | <0.446 | U | 2.86 | 0.446 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| N-Nitrosodiethylamine | <0.538 | U | 1.14 | 0.538 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| N-Nitrosodimethylamine | <0.100 | U | 0.571 | 0.100 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Dicofol | <0.0571 | U | 0.0571 | 0.0571 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |
| Mirex | <0.0571 | U | 0.0571 | 0.0571 | ug/L | | 06/09/25 06:45 | 06/10/25 19:07 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *56* | | *43 - 130* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |
| *2-Fluorobiphenyl (Surr)* | *56* | | *43 - 130* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |
| *2-Fluorophenol (Surr)* | *61* | | *19 - 120* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |
| *Nitrobenzene-d5 (Surr)* | *54* | | *37 - 133* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |
| *p-Terphenyl-d14 (Surr)* | *64* | | *47 - 130* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *55* | | *35 - 130* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |
| *Phenol-d5 (Surr)* | *57* | | *8 - 124* | *06/09/25 06:45* | *06/10/25 19:07* | *1* |

**Lab Sample ID: LCS 860-241035/2-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 5.71 | 3.899 | | ug/L | | 68 | 44 - 142 |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: LCS 860-241035/2-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Diphenylhydrazine | 5.71 | 4.911 | | ug/L | | 86 | 65 - 150 |
| 1,2-Dichlorobenzene | 5.71 | 4.165 | | ug/L | | 73 | 65 - 130 |
| 1,3-Dichlorobenzene | 5.71 | 4.210 | | ug/L | | 74 | 26 - 130 |
| 1,4-Dichlorobenzene | 5.71 | 4.110 | | ug/L | | 72 | 60 - 150 |
| 2,4,5-Trichlorophenol | 5.71 | 4.169 | | ug/L | | 73 | 58 - 150 |
| 2,4,6-Trichlorophenol | 5.71 | 4.041 | | ug/L | | 71 | 37 - 144 |
| 2,4-Dichlorophenol | 5.71 | 4.563 | | ug/L | | 80 | 39 - 135 |
| 2,4-Dimethylphenol | 5.71 | 4.267 | | ug/L | | 75 | 32 - 120 |
| 2,4-Dinitrophenol | 5.71 | 3.919 | J | ug/L | | 69 | 15 - 191 |
| 2,4-Dinitrotoluene | 5.71 | 3.312 | | ug/L | | 58 | 39 - 139 |
| 2,6-Dinitrotoluene | 5.71 | 4.166 | | ug/L | | 73 | 50 - 158 |
| 2-Chloronaphthalene | 5.71 | 4.060 | | ug/L | | 71 | 60 - 120 |
| 2-Chlorophenol | 5.71 | 4.160 | | ug/L | | 73 | 23 - 134 |
| 2-Methylnaphthalene | 5.71 | 3.769 | | ug/L | | 66 | 33 - 149 |
| 2-Methylphenol | 5.71 | 4.306 | | ug/L | | 75 | 49 - 140 |
| 2-Nitroaniline | 5.71 | 3.991 | | ug/L | | 70 | 42 - 150 |
| 2-Nitrophenol | 5.71 | 4.500 | | ug/L | | 79 | 29 - 182 |
| 3 & 4 Methylphenol | 5.71 | 3.790 | | ug/L | | 66 | 55 - 142 |
| 3,3'-Dichlorobenzidine | 5.71 | 3.160 | | ug/L | | 55 | 15 - 262 |
| 3-Nitroaniline | 5.71 | 3.053 | | ug/L | | 53 | 34 - 119 |
| 4,6-Dinitro-2-methylphenol | 5.71 | 4.121 | | ug/L | | 72 | 40 - 150 |
| 4-Bromophenyl phenyl ether | 5.71 | 4.605 | | ug/L | | 81 | 53 - 127 |
| 4-Chloro-3-methylphenol | 5.71 | 4.489 | | ug/L | | 79 | 22 - 147 |
| 4-Chlorophenyl phenyl ether | 5.71 | 4.272 | | ug/L | | 75 | 25 - 158 |
| 4-Nitroaniline | 5.71 | 4.065 | | ug/L | | 71 | 45 - 148 |
| 4-Nitrophenol | 5.71 | 3.745 | | ug/L | | 66 | 30 - 132 |
| Acenaphthene | 5.71 | 4.138 | | ug/L | | 72 | 47 - 145 |
| Acenaphthylene | 5.71 | 4.146 | | ug/L | | 73 | 33 - 145 |
| Aniline | 5.71 | 1.968 | | ug/L | | 34 | 5 - 72 |
| Anthracene | 5.71 | 4.406 | | ug/L | | 77 | 27 - 133 |
| Benzo[a]anthracene | 5.71 | 4.693 | | ug/L | | 82 | 33 - 143 |
| Benzo[a]pyrene | 5.71 | 4.827 | | ug/L | | 84 | 17 - 163 |
| Benzo[b]fluoranthene | 5.71 | 4.729 | | ug/L | | 83 | 24 - 159 |
| Benzo[g,h,i]perylene | 5.71 | 4.961 | | ug/L | | 87 | 44 - 219 |
| Benzo[k]fluoranthene | 5.71 | 4.789 | | ug/L | | 84 | 11 - 162 |
| Benzoic acid | 34.3 | 22.06 | | ug/L | | 64 | 10 - 150 |
| Butyl benzyl phthalate | 5.71 | 4.678 | | ug/L | | 82 | 60 - 152 |
| Bis(2-chloroethoxy)methane | 5.71 | 3.946 | | ug/L | | 69 | 33 - 184 |
| Bis(2-chloroethyl)ether | 5.71 | 3.790 | | ug/L | | 66 | 12 - 158 |
| Bis(2-ethylhexyl) phthalate | 5.71 | 4.147 | | ug/L | | 73 | 8 - 158 |
| Chrysene | 5.71 | 4.490 | | ug/L | | 79 | 17 - 168 |
| Dibenz(a,h)anthracene | 5.71 | 5.362 | | ug/L | | 94 | 50 - 227 |
| Dibenzofuran | 5.71 | 4.167 | | ug/L | | 73 | 52 - 139 |
| Diethyl phthalate | 5.71 | 3.985 | | ug/L | | 70 | 55 - 120 |
| Dimethyl phthalate | 5.71 | 3.862 | | ug/L | | 68 | 44 - 120 |
| Di-n-butyl phthalate | 5.71 | 4.465 | | ug/L | | 78 | 1 - 120 |
| Di-n-octyl phthalate | 5.71 | 5.115 | | ug/L | | 90 | 4 - 146 |
| Fluoranthene | 5.71 | 3.795 | | ug/L | | 66 | 26 - 137 |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: LCS 860-241035/2-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Fluorene | 5.71 | 4.066 | | ug/L | | 71 | 59 - 121 |
| Hexachlorobenzene | 5.71 | 4.751 | | ug/L | | 83 | 55 - 152 |
| Hexachlorobutadiene | 5.71 | 5.251 | | ug/L | | 92 | 24 - 120 |
| Hexachlorocyclopentadiene | 5.71 | 4.567 | | ug/L | | 80 | 10 - 130 |
| Hexachloroethane | 5.71 | 4.370 | | ug/L | | 76 | 40 - 120 |
| Indeno[1,2,3-cd]pyrene | 5.71 | 4.984 | | ug/L | | 87 | 46 - 171 |
| Isophorone | 5.71 | 4.002 | | ug/L | | 70 | 21 - 196 |
| Naphthalene | 5.71 | 3.554 | | ug/L | | 62 | 21 - 133 |
| Nitrobenzene | 5.71 | 4.121 | | ug/L | | 72 | 35 - 180 |
| N-Nitrosodi-n-propylamine | 5.71 | 3.861 | | ug/L | | 68 | 55 - 230 |
| N-Nitrosodiphenylamine | 5.71 | 4.281 | | ug/L | | 75 | 56 - 141 |
| Pentachlorophenol | 5.71 | 6.123 | | ug/L | | 107 | 14 - 176 |
| Phenanthrene | 5.71 | 4.386 | | ug/L | | 77 | 54 - 120 |
| Phenol | 5.71 | 4.162 | | ug/L | | 73 | 5 - 120 |
| Pyrene | 5.71 | 4.218 | | ug/L | | 74 | 52 - 120 |
| Pyridine | 5.71 | 1.666 | J | ug/L | | 29 | 10 - 76 |
| Benzidine | 5.71 | 1.674 | J | ug/L | | 29 | 5 - 100 |
| N-Nitrosodiethylamine | 5.71 | 4.301 | | ug/L | | 75 | 50 - 136 |
| N-Nitrosodimethylamine | 5.71 | 4.299 | | ug/L | | 75 | 40 - 150 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl* | *61* | | *43 - 130* |
| *2-Fluorobiphenyl (Surr)* | *61* | | *43 - 130* |
| *2-Fluorophenol (Surr)* | *64* | | *19 - 120* |
| *Nitrobenzene-d5 (Surr)* | *59* | | *37 - 133* |
| *p-Terphenyl-d14 (Surr)* | *68* | | *47 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *68* | | *35 - 130* |
| *Phenol-d5 (Surr)* | *61* | | *8 - 124* |

**Lab Sample ID: LCS 860-241035/2-A**
**Matrix: Water**
**Analysis Batch: 243768**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| 2,2'-oxybis[1-chloropropane] | 5.71 | 4.773 | | ug/L | | 84 | 65 - 145 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl* | *82* | | *43 - 130* |
| *2-Fluorobiphenyl (Surr)* | *82* | | *43 - 130* |
| *2-Fluorophenol (Surr)* | *95* | | *19 - 120* |
| *Nitrobenzene-d5 (Surr)* | *72* | | *37 - 133* |
| *p-Terphenyl-d14 (Surr)* | *79* | | *47 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *81* | | *35 - 130* |
| *Phenol-d5 (Surr)* | *84* | | *8 - 124* |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: LCS 860-241035/4-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Azinphos-methyl | 2.86 | 3.591 | | ug/L | | 126 | 70 - 200 |
| Diazinon | 2.86 | 3.160 | | ug/L | | 111 | 37 - 130 |
| Demeton-O | 0.857 | 0.8457 | | ug/L | | 99 | 60 - 150 |
| Demeton-S | 2.00 | 1.745 | | ug/L | | 87 | 25 - 110 |
| Disulfoton | 2.86 | 6.433 | *+ | ug/L | | 225 | 80 - 150 |
| Malathion | 2.86 | 3.651 | | ug/L | | 128 | 60 - 145 |
| Methyl parathion | 2.86 | 5.931 | *+ | ug/L | | 208 | 80 - 160 |
| Ethyl Parathion | 2.86 | 6.761 | *+ | ug/L | | 237 | 25 - 173 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl* | *59* | | *43 - 130* |
| *2-Fluorobiphenyl (Surr)* | *59* | | *43 - 130* |
| *2-Fluorophenol (Surr)* | *64* | | *19 - 120* |
| *Nitrobenzene-d5 (Surr)* | *59* | | *37 - 133* |
| *p-Terphenyl-d14 (Surr)* | *68* | | *47 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *59* | | *35 - 130* |
| *Phenol-d5 (Surr)* | *63* | | *8 - 124* |

**Lab Sample ID: LCSD 860-241035/3-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 5.71 | 3.939 | | ug/L | | 69 | 44 - 142 | 1 | 30 |
| 1,2-Diphenylhydrazine | 5.71 | 4.737 | | ug/L | | 83 | 65 - 150 | 4 | 30 |
| 1,2-Dichlorobenzene | 5.71 | 4.276 | | ug/L | | 75 | 65 - 130 | 3 | 30 |
| 1,3-Dichlorobenzene | 5.71 | 4.214 | | ug/L | | 74 | 26 - 130 | 0 | 30 |
| 1,4-Dichlorobenzene | 5.71 | 4.171 | | ug/L | | 73 | 60 - 150 | 1 | 30 |
| 2,4,5-Trichlorophenol | 5.71 | 4.004 | | ug/L | | 70 | 58 - 150 | 4 | 30 |
| 2,4,6-Trichlorophenol | 5.71 | 3.930 | | ug/L | | 69 | 37 - 144 | 3 | 30 |
| 2,4-Dichlorophenol | 5.71 | 4.732 | | ug/L | | 83 | 39 - 135 | 4 | 30 |
| 2,4-Dimethylphenol | 5.71 | 4.346 | | ug/L | | 76 | 32 - 120 | 2 | 30 |
| 2,4-Dinitrophenol | 5.71 | 3.667 | J | ug/L | | 64 | 15 - 191 | 7 | 30 |
| 2,4-Dinitrotoluene | 5.71 | 3.497 | | ug/L | | 61 | 39 - 139 | 5 | 25 |
| 2,6-Dinitrotoluene | 5.71 | 4.279 | | ug/L | | 75 | 50 - 158 | 3 | 29 |
| 2-Chloronaphthalene | 5.71 | 3.947 | | ug/L | | 69 | 60 - 120 | 3 | 15 |
| 2-Chlorophenol | 5.71 | 4.197 | | ug/L | | 73 | 23 - 134 | 1 | 30 |
| 2-Methylnaphthalene | 5.71 | 3.859 | | ug/L | | 68 | 33 - 149 | 2 | 30 |
| 2-Methylphenol | 5.71 | 4.338 | | ug/L | | 76 | 49 - 140 | 1 | 30 |
| 2-Nitroaniline | 5.71 | 3.933 | | ug/L | | 69 | 42 - 150 | 1 | 30 |
| 2-Nitrophenol | 5.71 | 4.561 | | ug/L | | 80 | 29 - 182 | 1 | 30 |
| 3 & 4 Methylphenol | 5.71 | 3.877 | | ug/L | | 68 | 55 - 142 | 2 | 30 |
| 3,3'-Dichlorobenzidine | 5.71 | 3.293 | | ug/L | | 58 | 15 - 262 | 4 | 30 |
| 3-Nitroaniline | 5.71 | 3.160 | | ug/L | | 55 | 34 - 119 | 3 | 30 |
| 4,6-Dinitro-2-methylphenol | 5.71 | 3.737 | | ug/L | | 65 | 40 - 150 | 10 | 30 |
| 4-Bromophenyl phenyl ether | 5.71 | 4.616 | | ug/L | | 81 | 53 - 127 | 0 | 26 |
| 4-Chloro-3-methylphenol | 5.71 | 4.539 | | ug/L | | 79 | 22 - 147 | 1 | 30 |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: LCSD 860-241035/3-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorophenyl phenyl ether | 5.71 | 4.371 | | ug/L | | 77 | 25 - 158 | 2 | 30 |
| 4-Nitroaniline | 5.71 | 4.350 | | ug/L | | 76 | 45 - 148 | 7 | 30 |
| 4-Nitrophenol | 5.71 | 3.814 | | ug/L | | 67 | 30 - 132 | 2 | 30 |
| Acenaphthene | 5.71 | 4.084 | | ug/L | | 71 | 47 - 145 | 1 | 29 |
| Acenaphthylene | 5.71 | 4.080 | | ug/L | | 71 | 33 - 145 | 2 | 30 |
| Aniline | 5.71 | 1.987 | | ug/L | | 35 | 5 - 72 | 1 | 30 |
| Anthracene | 5.71 | 4.460 | | ug/L | | 78 | 27 - 133 | 1 | 30 |
| Benzo[a]anthracene | 5.71 | 4.516 | | ug/L | | 79 | 33 - 143 | 4 | 30 |
| Benzo[a]pyrene | 5.71 | 4.600 | | ug/L | | 81 | 17 - 163 | 5 | 30 |
| Benzo[b]fluoranthene | 5.71 | 4.581 | | ug/L | | 80 | 24 - 159 | 3 | 30 |
| Benzo[g,h,i]perylene | 5.71 | 4.875 | | ug/L | | 85 | 44 - 219 | 2 | 30 |
| Benzo[k]fluoranthene | 5.71 | 4.548 | | ug/L | | 80 | 11 - 162 | 5 | 30 |
| Benzoic acid | 34.3 | 22.18 | | ug/L | | 65 | 10 - 150 | 1 | 30 |
| Butyl benzyl phthalate | 5.71 | 4.700 | | ug/L | | 82 | 60 - 152 | 0 | 30 |
| Bis(2-chloroethoxy)methane | 5.71 | 4.019 | | ug/L | | 70 | 33 - 184 | 2 | 30 |
| Bis(2-chloroethyl)ether | 5.71 | 3.859 | | ug/L | | 68 | 12 - 158 | 2 | 30 |
| Bis(2-ethylhexyl) phthalate | 5.71 | 4.224 | | ug/L | | 74 | 8 - 158 | 2 | 30 |
| Chrysene | 5.71 | 4.620 | | ug/L | | 81 | 17 - 168 | 3 | 30 |
| Dibenz(a,h)anthracene | 5.71 | 5.254 | | ug/L | | 92 | 50 - 227 | 2 | 30 |
| Dibenzofuran | 5.71 | 4.166 | | ug/L | | 73 | 52 - 139 | 0 | 30 |
| Diethyl phthalate | 5.71 | 3.990 | | ug/L | | 70 | 55 - 120 | 0 | 30 |
| Dimethyl phthalate | 5.71 | 3.848 | | ug/L | | 67 | 44 - 120 | 0 | 30 |
| Di-n-butyl phthalate | 5.71 | 4.441 | | ug/L | | 78 | 1 - 120 | 1 | 28 |
| Di-n-octyl phthalate | 5.71 | 5.011 | | ug/L | | 88 | 4 - 146 | 2 | 30 |
| Fluoranthene | 5.71 | 3.923 | | ug/L | | 69 | 26 - 137 | 3 | 30 |
| Fluorene | 5.71 | 3.997 | | ug/L | | 70 | 59 - 121 | 2 | 23 |
| Hexachlorobenzene | 5.71 | 4.919 | | ug/L | | 86 | 55 - 152 | 3 | 30 |
| Hexachlorobutadiene | 5.71 | 5.362 | | ug/L | | 94 | 24 - 120 | 2 | 30 |
| Hexachlorocyclopentadiene | 5.71 | 4.697 | | ug/L | | 82 | 10 - 130 | 3 | 30 |
| Hexachloroethane | 5.71 | 4.357 | | ug/L | | 76 | 40 - 120 | 0 | 30 |
| Indeno[1,2,3-cd]pyrene | 5.71 | 4.852 | | ug/L | | 85 | 46 - 171 | 3 | 30 |
| Isophorone | 5.71 | 3.937 | | ug/L | | 69 | 21 - 196 | 2 | 30 |
| Naphthalene | 5.71 | 3.578 | | ug/L | | 63 | 21 - 133 | 1 | 30 |
| Nitrobenzene | 5.71 | 4.155 | | ug/L | | 73 | 35 - 180 | 1 | 30 |
| N-Nitrosodi-n-propylamine | 5.71 | 3.818 | | ug/L | | 67 | 55 - 230 | 1 | 30 |
| N-Nitrosodiphenylamine | 5.71 | 4.306 | | ug/L | | 75 | 56 - 141 | 1 | 30 |
| Pentachlorophenol | 5.71 | 6.056 | | ug/L | | 106 | 14 - 176 | 1 | 30 |
| Phenanthrene | 5.71 | 4.515 | | ug/L | | 79 | 54 - 120 | 3 | 24 |
| Phenol | 5.71 | 4.131 | | ug/L | | 72 | 5 - 120 | 1 | 30 |
| Pyrene | 5.71 | 4.255 | | ug/L | | 74 | 52 - 120 | 1 | 30 |
| Pyridine | 5.71 | 1.673 | J | ug/L | | 29 | 10 - 76 | 0 | 30 |
| Benzidine | 5.71 | 1.752 | J | ug/L | | 31 | 5 - 100 | 5 | 30 |
| N-Nitrosodiethylamine | 5.71 | 4.416 | | ug/L | | 77 | 50 - 136 | 3 | 30 |
| N-Nitrosodimethylamine | 5.71 | 4.242 | | ug/L | | 74 | 40 - 150 | 1 | 30 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl* | *58* | | *43 - 130* |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: LCSD 860-241035/3-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 2-Fluorobiphenyl (Surr) | 58 | | 43 - 130 |
| 2-Fluorophenol (Surr) | 65 | | 19 - 120 |
| Nitrobenzene-d5 (Surr) | 60 | | 37 - 133 |
| p-Terphenyl-d14 (Surr) | 67 | | 47 - 130 |
| 2,4,6-Tribromophenol (Surr) | 66 | | 35 - 130 |
| Phenol-d5 (Surr) | 64 | | 8 - 124 |

**Lab Sample ID: LCSD 860-241035/3-A**
**Matrix: Water**
**Analysis Batch: 243768**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 2,2'-oxybis[1-chloropropane] | 5.71 | 4.653 | | ug/L | | 81 | 65 - 145 | 3 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 2-Fluorobiphenyl | 82 | | 43 - 130 |
| 2-Fluorobiphenyl (Surr) | 82 | | 43 - 130 |
| 2-Fluorophenol (Surr) | 95 | | 19 - 120 |
| Nitrobenzene-d5 (Surr) | 70 | | 37 - 133 |
| p-Terphenyl-d14 (Surr) | 79 | | 47 - 130 |
| 2,4,6-Tribromophenol (Surr) | 76 | | 35 - 130 |
| Phenol-d5 (Surr) | 80 | | 8 - 124 |

**Lab Sample ID: LCSD 860-241035/5-A**
**Matrix: Water**
**Analysis Batch: 241542**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Azinphos-methyl | 2.86 | 3.865 | | ug/L | | 135 | 70 - 200 | 7 | 30 |
| Diazinon | 2.86 | 3.408 | | ug/L | | 119 | 37 - 130 | 8 | 30 |
| Demeton-O | 0.857 | 0.8742 | | ug/L | | 102 | 60 - 150 | 3 | 30 |
| Demeton-S | 2.00 | 1.758 | | ug/L | | 88 | 25 - 110 | 1 | 30 |
| Disulfoton | 2.86 | 6.792 | *+ | ug/L | | 238 | 80 - 150 | 5 | 30 |
| Malathion | 2.86 | 3.764 | | ug/L | | 132 | 60 - 145 | 3 | 30 |
| Methyl parathion | 2.86 | 6.308 | *+ | ug/L | | 221 | 80 - 160 | 6 | 30 |
| Ethyl Parathion | 2.86 | 6.838 | *+ | ug/L | | 239 | 25 - 173 | 1 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 2-Fluorobiphenyl | 60 | | 43 - 130 |
| 2-Fluorobiphenyl (Surr) | 60 | | 43 - 130 |
| 2-Fluorophenol (Surr) | 68 | | 19 - 120 |
| Nitrobenzene-d5 (Surr) | 67 | | 37 - 133 |
| p-Terphenyl-d14 (Surr) | 75 | | 47 - 130 |
| 2,4,6-Tribromophenol (Surr) | 60 | | 35 - 130 |
| Phenol-d5 (Surr) | 66 | | 8 - 124 |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: 860-102871-1 MS**
**Matrix: Water**
**Analysis Batch: 242399**

**Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | <0.0767 | U F1 | 5.71 | 1.744 | F1 | ug/L | | 31 | 44 - 142 |
| 1,2-Diphenylhydrazine | <0.287 | U | 5.71 | 7.781 | | ug/L | | 136 | 65 - 150 |
| 1,2-Dichlorobenzene | <0.0942 | U F1 | 5.71 | 1.690 | F1 | ug/L | | 30 | 65 - 130 |
| 1,3-Dichlorobenzene | <0.102 | U | 5.71 | 1.503 | | ug/L | | 26 | 26 - 130 |
| 1,4-Dichlorobenzene | <0.0780 | U F1 | 5.71 | 1.588 | F1 | ug/L | | 28 | 60 - 150 |
| 2,4,5-Trichlorophenol | <0.143 | U | 5.71 | 6.397 | | ug/L | | 112 | 58 - 150 |
| 2,4,6-Trichlorophenol | <0.231 | U | 5.71 | 6.134 | | ug/L | | 107 | 37 - 144 |
| 2,4-Dichlorophenol | <0.140 | U | 5.71 | 6.273 | | ug/L | | 110 | 39 - 135 |
| 2,4-Dimethylphenol | <0.192 | U | 5.71 | 5.612 | | ug/L | | 98 | 32 - 120 |
| 2,4-Dinitrophenol | <0.311 | U | 5.71 | 2.650 | J | ug/L | | 46 | 15 - 191 |
| 2,4-Dinitrotoluene | <0.205 | U F1 | 5.71 | 8.615 | I F1 | ug/L | | 151 | 39 - 139 |
| 2,6-Dinitrotoluene | <0.116 | U F1 | 5.71 | 9.641 | F1 | ug/L | | 169 | 50 - 158 |
| 2-Chloronaphthalene | <0.379 | U F1 | 5.71 | 3.139 | F1 | ug/L | | 55 | 60 - 120 |
| 2-Chlorophenol | <0.0757 | U | 5.71 | 6.230 | | ug/L | | 109 | 23 - 134 |
| 2-Methylnaphthalene | <0.0603 | U | 5.71 | 3.045 | | ug/L | | 53 | 33 - 149 |
| 2-Methylphenol | <0.105 | U | 5.71 | 4.646 | | ug/L | | 81 | 49 - 140 |
| 2-Nitroaniline | <0.149 | U | 5.71 | 7.808 | | ug/L | | 137 | 42 - 150 |
| 2-Nitrophenol | <0.136 | U | 5.71 | 6.662 | | ug/L | | 117 | 29 - 182 |
| 3 & 4 Methylphenol | <0.139 | U | 5.71 | 3.630 | | ug/L | | 64 | 55 - 142 |
| 3,3'-Dichlorobenzidine | <0.183 | U | 5.71 | 2.581 | | ug/L | | 45 | 15 - 262 |
| 3-Nitroaniline | <0.267 | U | 5.71 | 2.879 | | ug/L | | 50 | 34 - 119 |
| 4,6-Dinitro-2-methylphenol | <1.00 | U | 5.71 | 3.367 | | ug/L | | 59 | 40 - 181 |
| 4-Bromophenyl phenyl ether | <0.100 | U | 5.71 | 5.549 | | ug/L | | 97 | 53 - 127 |
| 4-Chloro-3-methylphenol | <0.104 | U | 5.71 | 6.537 | | ug/L | | 114 | 22 - 147 |
| 4-Chlorophenyl phenyl ether | <0.131 | U | 5.71 | 4.244 | | ug/L | | 74 | 25 - 158 |
| 4-Nitroaniline | <0.363 | U | 5.71 | 3.472 | | ug/L | | 61 | 45 - 148 |
| 4-Nitrophenol | <0.440 | U F1 | 5.71 | 1.546 | F1 | ug/L | | 27 | 30 - 132 |
| Acenaphthene | <0.108 | U | 5.71 | 3.889 | | ug/L | | 68 | 47 - 145 |
| Acenaphthylene | <0.0998 | U | 5.71 | 4.936 | | ug/L | | 86 | 33 - 145 |
| Aniline | <0.0580 | U | 5.71 | 1.752 | | ug/L | | 31 | 5 - 72 |
| Anthracene | <0.0939 | U | 5.71 | 6.586 | | ug/L | | 115 | 27 - 133 |
| Benzo[a]anthracene | <0.0822 | U | 5.71 | 6.234 | | ug/L | | 109 | 33 - 143 |
| Benzo[a]pyrene | <0.0701 | U | 5.71 | 5.771 | | ug/L | | 101 | 17 - 163 |
| Benzo[b]fluoranthene | <0.0665 | U | 5.71 | 5.738 | | ug/L | | 100 | 24 - 159 |
| Benzo[g,h,i]perylene | <0.0346 | U | 5.71 | 5.825 | | ug/L | | 102 | 44 - 219 |
| Benzo[k]fluoranthene | <0.0473 | U | 5.71 | 5.932 | | ug/L | | 104 | 11 - 162 |
| Benzoic acid | <14.3 | U | 34.3 | 16.59 | I | ug/L | | 48 | 10 - 200 |
| Butyl benzyl phthalate | <1.43 | U | 5.71 | 8.537 | | ug/L | | 149 | 60 - 152 |
| Bis(2-chloroethoxy)methane | <0.0976 | U | 5.71 | 5.673 | | ug/L | | 99 | 33 - 184 |
| Bis(2-chloroethyl)ether | <0.215 | U | 5.71 | 5.479 | | ug/L | | 96 | 12 - 158 |
| 2,2'-oxybis[1-chloropropane] | <0.128 | U | 5.71 | 5.215 | | ug/L | | 91 | 65 - 145 |
| Bis(2-ethylhexyl) phthalate | <1.43 | U | 5.71 | 6.938 | | ug/L | | 121 | 8 - 158 |
| Chrysene | <0.0817 | U | 5.71 | 5.610 | | ug/L | | 98 | 17 - 168 |
| Dibenz(a,h)anthracene | <0.0510 | U | 5.71 | 6.128 | | ug/L | | 107 | 50 - 227 |
| Dibenzofuran | <0.107 | U | 5.71 | 4.722 | | ug/L | | 83 | 52 - 139 |
| Diethyl phthalate | <1.43 | U | 5.71 | 6.100 | | ug/L | | 107 | 55 - 120 |
| Dimethyl phthalate | <1.43 | U F1 | 5.71 | 8.254 | F1 | ug/L | | 144 | 44 - 120 |

## Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

**Lab Sample ID: 860-102871-1 MS**
**Matrix: Water**
**Analysis Batch: 242399**

**Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp**
**Prep Type: Total/NA**
**Prep Batch: 241035**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Di-n-butyl phthalate | <1.43 | U | 5.71 | 6.456 | | ug/L | | 113 | 1 - 120 |
| Di-n-octyl phthalate | <1.43 | U F1 | 5.71 | 9.601 | F1 | ug/L | | 168 | 4 - 146 |
| Fluoranthene | <0.0884 | U | 5.71 | 6.817 | | ug/L | | 119 | 26 - 137 |
| Fluorene | <0.0950 | U | 5.71 | 5.469 | | ug/L | | 96 | 59 - 121 |
| Hexachlorobenzene | <0.0976 | U | 5.71 | 5.521 | | ug/L | | 97 | 55 - 152 |
| Hexachlorobutadiene | <0.103 | U F1 | 5.71 | 1.321 | F1 | ug/L | | 23 | 24 - 120 |
| Hexachlorocyclopentadiene | <0.219 | U | 5.71 | 1.505 | | ug/L | | 26 | 10 - 130 |
| Hexachloroethane | <0.102 | U F1 | 5.71 | 1.682 | F1 | ug/L | | 29 | 40 - 120 |
| Indeno[1,2,3-cd]pyrene | <0.100 | U | 5.71 | 6.106 | | ug/L | | 107 | 46 - 171 |
| Isophorone | <0.107 | U | 5.71 | 7.811 | I | ug/L | | 137 | 21 - 196 |
| Naphthalene | <0.0946 | U | 5.71 | 3.361 | | ug/L | | 59 | 21 - 133 |
| Nitrobenzene | <0.0737 | U | 5.71 | 7.738 | | ug/L | | 135 | 35 - 180 |
| N-Nitrosodi-n-propylamine | <0.119 | U | 5.71 | 8.515 | | ug/L | | 149 | 55 - 230 |
| N-Nitrosodiphenylamine | <0.145 | U | 5.71 | 6.756 | | ug/L | | 118 | 56 - 141 |
| Pentachlorophenol | <0.199 | U | 5.71 | 7.496 | | ug/L | | 131 | 14 - 176 |
| Phenanthrene | <0.134 | U | 5.71 | 6.403 | | ug/L | | 112 | 54 - 120 |
| Phenol | <1.14 | U | 5.71 | 1.949 | | ug/L | | 34 | 5 - 120 |
| Pyrene | <0.0850 | U | 5.71 | 6.483 | | ug/L | | 113 | 52 - 120 |
| Pyridine | <1.44 | U F1 | 5.71 | <1.44 | U F1 | ug/L | | 0 | 10 - 76 |
| Benzidine | <0.447 | U | 5.71 | 0.6668 | J I | ug/L | | 12 | 5 - 100 |
| N-Nitrosodiethylamine | <0.539 | U | 5.71 | 4.425 | | ug/L | | 77 | 50 - 136 |
| N-Nitrosodimethylamine | <0.100 | U F1 | 5.71 | 1.582 | F1 | ug/L | | 28 | 40 - 150 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl* | *101* | | *43 - 130* |
| *2-Fluorobiphenyl (Surr)* | *101* | | *43 - 130* |
| *2-Fluorophenol (Surr)* | *49* | | *19 - 120* |
| *Nitrobenzene-d5 (Surr)* | *129* | | *37 - 133* |
| *p-Terphenyl-d14 (Surr)* | *98* | | *47 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *129* | | *35 - 130* |
| *Phenol-d5 (Surr)* | *27* | | *8 - 124* |

## Method: D7065-11 - Determination of Nonylphenols

**Lab Sample ID: MB 280-699766/1-A**
**Matrix: Water**
**Analysis Batch: 699879**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 699766**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nonylphenol | <2500 | U | 5000 | 2500 | ng/L | | 06/11/25 09:41 | 06/11/25 15:31 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-nonylphenol (Surr)* | *78* | | *58 - 115* | *06/11/25 09:41* | *06/11/25 15:31* | *1* |

## Method: D7065-11 - Determination of Nonylphenols (Continued)

**Lab Sample ID: LCS 280-699766/2-A**
**Matrix: Water**
**Analysis Batch: 699879**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 699766**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonylphenol | | | 51300 | 37150 | | ng/L | | 72 | 46 - 133 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-nonylphenol (Surr)* | *80* | | *58 - 115* |

**Lab Sample ID: LCSD 280-699766/3-A**
**Matrix: Water**
**Analysis Batch: 699879**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 699766**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonylphenol | | | 51300 | 36020 | | ng/L | | 70 | 46 - 133 | 3 | 34 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-nonylphenol (Surr)* | *76* | | *58 - 115* |

## Method: 608.3 - Organochlorine Pesticides/PCBs in Water

**Lab Sample ID: MB 860-241078/1-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | <0.0000592 | U | 0.000284 | 0.0000592 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| 4,4'-DDD | <0.0000203 | U | 0.0000568 | 0.0000203 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| PCB-1221 | <0.0000592 | U | 0.000568 | 0.0000592 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| 4,4'-DDE | <0.0000183 | U | 0.0000568 | 0.0000183 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| PCB-1232 | <0.0000592 | U | 0.000568 | 0.0000592 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| 4,4'-DDT | <0.0000204 | U | 0.0000568 | 0.0000204 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Aldrin | <0.0000180 | U | 0.0000568 | 0.0000180 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| PCB-1242 | <0.0000592 | U | 0.000284 | 0.0000592 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| alpha-BHC | <0.0000181 | U | 0.0000568 | 0.0000181 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| PCB-1248 | <0.0000592 | U | 0.000568 | 0.0000592 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| cis-Chlordane | <0.0000213 | U | 0.0000568 | 0.0000213 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| PCB-1254 | <0.0000744 | U | 0.000568 | 0.0000744 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| PCB-1260 | <0.0000744 | U | 0.000284 | 0.0000744 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| beta-BHC | <0.0000195 | U | 0.0000568 | 0.0000195 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Polychlorinated biphenyls, Total | NC | | 0.000568 | 0.000284 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Chlordane (technical) | <0.000222 | U | 0.00114 | 0.000222 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| delta-BHC | <0.00000993 | U | 0.0000568 | 0.0000099 3 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Dicofol | <0.0000284 | U | 0.0000284 | 0.0000284 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Dieldrin | <0.0000196 | U | 0.0000568 | 0.0000196 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Endosulfan I | <0.0000211 | U | 0.0000568 | 0.0000211 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Endosulfan II | <0.0000201 | U | 0.0000568 | 0.0000201 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Endosulfan sulfate | <0.0000173 | U | 0.0000568 | 0.0000173 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Endrin | <0.0000189 | U | 0.0000568 | 0.0000189 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Endrin aldehyde | <0.0000190 | U | 0.0000568 | 0.0000190 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |

## Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

**Lab Sample ID: MB 860-241078/1-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Endrin ketone | <0.0000194 | U | 0.0000568 | 0.0000194 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| gamma-BHC (Lindane) | <0.0000193 | U | 0.0000568 | 0.0000193 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| trans-Chlordane | <0.0000214 | U | 0.0000568 | 0.0000214 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Heptachlor | <0.0000315 | U | 0.0000568 | 0.0000315 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Heptachlor epoxide | <0.0000207 | U | 0.0000568 | 0.0000207 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Methoxychlor | <0.0000211 | U | 0.0000568 | 0.0000211 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Mirex | <0.0000284 | U | 0.0000284 | 0.0000284 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |
| Toxaphene | <0.000383 | U | 0.00114 | 0.000383 | mg/L | | 06/09/25 09:59 | 06/09/25 14:28 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *DCB Decachlorobiphenyl (Surr)* | *126* | *S1+* | *45 - 115* | *06/09/25 09:59* | *06/09/25 14:28* | *1* |
| *Tetrachloro-m-xylene* | *100* | | *41 - 110* | *06/09/25 09:59* | *06/09/25 14:28* | *1* |

**Lab Sample ID: LCS 860-241078/2-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| 4,4'-DDD | 0.00143 | 0.001935 | *+ | mg/L | | 135 | 60 - 111 |
| 4,4'-DDE | 0.00143 | 0.001827 | *+ | mg/L | | 128 | 47 - 97 |
| 4,4'-DDT | 0.00143 | 0.001428 | *+ | mg/L | | 100 | 47 - 96 |
| Aldrin | 0.00143 | 0.001558 | *+ | mg/L | | 109 | 45 - 100 |
| alpha-BHC | 0.00143 | 0.001804 | *+ | mg/L | | 126 | 58 - 105 |
| cis-Chlordane | 0.00143 | 0.001739 | *+ | mg/L | | 122 | 53 - 106 |
| beta-BHC | 0.00143 | 0.001698 | *+ | mg/L | | 119 | 52 - 98 |
| delta-BHC | 0.00143 | 0.001762 | *+ | mg/L | | 123 | 30 - 105 |
| Dieldrin | 0.00143 | 0.001781 | *+ | mg/L | | 125 | 52 - 102 |
| Endosulfan I | 0.00143 | 0.001768 | *+ | mg/L | | 124 | 56 - 110 |
| Endosulfan II | 0.00143 | 0.001853 | *+ | mg/L | | 130 | 58 - 108 |
| Endosulfan sulfate | 0.00143 | 0.001702 | *+ | mg/L | | 119 | 57 - 101 |
| Endrin | 0.00143 | 0.001602 | *+ | mg/L | | 112 | 62 - 109 |
| Endrin aldehyde | 0.00143 | 0.001860 | *+ | mg/L | | 130 | 55 - 103 |
| Endrin ketone | 0.00143 | 0.001830 | *+ | mg/L | | 128 | 55 - 103 |
| gamma-BHC (Lindane) | 0.00143 | 0.001859 | *+ | mg/L | | 130 | 59 - 107 |
| trans-Chlordane | 0.00143 | 0.001724 | *+ | mg/L | | 121 | 52 - 103 |
| Heptachlor | 0.00143 | 0.001476 | *+ | mg/L | | 103 | 51 - 102 |
| Heptachlor epoxide | 0.00143 | 0.001718 | *+ | mg/L | | 120 | 56 - 109 |
| Methoxychlor | 0.00143 | 0.001450 | | mg/L | | 101 | 53 - 102 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *DCB Decachlorobiphenyl (Surr)* | *112* | | *45 - 115* |
| *Tetrachloro-m-xylene* | *115* | *S1+* | *41 - 110* |

## Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

**Lab Sample ID: LCS 860-241078/4-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| PCB-1016 | 0.00577 | 0.005703 | | mg/L | | 99 | 50 - 140 |
| PCB-1260 | 0.00577 | 0.006460 | | mg/L | | 112 | 37 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *DCB Decachlorobiphenyl (Surr)* | *101* | | *45 - 115* |
| *Tetrachloro-m-xylene* | *112* | *S1+* | *41 - 110* |

**Lab Sample ID: LCSD 860-241078/3-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD | 0.00144 | 0.001949 | *+ | mg/L | | 135 | 60 - 111 | 1 | 30 |
| 4,4'-DDE | 0.00144 | 0.001831 | *+ | mg/L | | 127 | 47 - 97 | 0 | 30 |
| 4,4'-DDT | 0.00144 | 0.001574 | *+ | mg/L | | 109 | 47 - 96 | 10 | 30 |
| Aldrin | 0.00144 | 0.001602 | *+ | mg/L | | 111 | 45 - 100 | 3 | 30 |
| alpha-BHC | 0.00144 | 0.001809 | *+ | mg/L | | 125 | 58 - 105 | 0 | 30 |
| cis-Chlordane | 0.00144 | 0.001731 | *+ | mg/L | | 120 | 53 - 106 | 0 | 30 |
| beta-BHC | 0.00144 | 0.001694 | *+ | mg/L | | 117 | 52 - 98 | 0 | 30 |
| delta-BHC | 0.00144 | 0.001774 | *+ | mg/L | | 123 | 30 - 105 | 1 | 30 |
| Dieldrin | 0.00144 | 0.001769 | *+ | mg/L | | 123 | 52 - 102 | 1 | 30 |
| Endosulfan I | 0.00144 | 0.001772 | *+ | mg/L | | 123 | 56 - 110 | 0 | 30 |
| Endosulfan II | 0.00144 | 0.001804 | *+ | mg/L | | 125 | 58 - 108 | 3 | 30 |
| Endosulfan sulfate | 0.00144 | 0.001747 | *+ | mg/L | | 121 | 57 - 101 | 3 | 30 |
| Endrin | 0.00144 | 0.001658 | *+ | mg/L | | 115 | 62 - 109 | 3 | 30 |
| Endrin aldehyde | 0.00144 | 0.001860 | *+ | mg/L | | 129 | 55 - 103 | 0 | 30 |
| Endrin ketone | 0.00144 | 0.001869 | *+ | mg/L | | 129 | 55 - 103 | 2 | 30 |
| gamma-BHC (Lindane) | 0.00144 | 0.001877 | *+ | mg/L | | 130 | 59 - 107 | 1 | 30 |
| trans-Chlordane | 0.00144 | 0.001718 | *+ | mg/L | | 119 | 52 - 103 | 0 | 30 |
| Heptachlor | 0.00144 | 0.001515 | *+ | mg/L | | 105 | 51 - 102 | 3 | 30 |
| Heptachlor epoxide | 0.00144 | 0.001730 | *+ | mg/L | | 120 | 56 - 109 | 1 | 30 |
| Methoxychlor | 0.00144 | 0.001603 | *+ | mg/L | | 111 | 53 - 102 | 10 | 30 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *DCB Decachlorobiphenyl (Surr)* | *111* | | *45 - 115* |
| *Tetrachloro-m-xylene* | *113* | *S1+* | *41 - 110* |

**Lab Sample ID: LCSD 860-241078/5-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | 0.00561 | 0.005945 | | mg/L | | 106 | 50 - 140 | 4 | 30 |
| PCB-1260 | 0.00561 | 0.006338 | | mg/L | | 113 | 37 - 130 | 2 | 30 |

## Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

**Lab Sample ID: LCSD 860-241078/5-A**
**Matrix: Water**
**Analysis Batch: 241050**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241078**

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| DCB Decachlorobiphenyl (Surr) | 112 | | 45 - 115 |
| Tetrachloro-m-xylene | 110 | | 41 - 110 |

## Method: 615 - Herbicides (GC)

**Lab Sample ID: MB 860-244541/1-A**
**Matrix: Water**
**Analysis Batch: 245141**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 244541**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-D | <0.0000539 | U | 0.000200 | 0.0000539 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| 2,4-DB | <0.0000493 | U | 0.000200 | 0.0000493 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Silvex (2,4,5-TP) | <0.0000422 | U | 0.000200 | 0.0000422 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| 2,4,5-T | <0.0000393 | U | 0.000200 | 0.0000393 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Dalapon | <0.0000476 | U | 0.000200 | 0.0000476 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Dicamba | <0.0000423 | U | 0.000200 | 0.0000423 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Dichlorprop | <0.0000527 | U | 0.000200 | 0.0000527 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Dinoseb | <0.0000343 | U | 0.000200 | 0.0000343 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| MCPA | <0.00526 | U | 0.0200 | 0.00526 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| MCPP | <0.00996 | U | 0.0200 | 0.00996 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Pentachlorophenol | <0.0000443 | U | 0.000200 | 0.0000443 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |
| Hexachlorophene | <0.000808 | U | 0.00500 | 0.000808 | mg/L | | 06/24/25 13:10 | 06/27/25 00:30 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 2,4-Dichlorophenylacetic acid | 81 | | 45 - 150 | 06/24/25 13:10 | 06/27/25 00:30 | 1 |

**Lab Sample ID: LCS 860-244541/2-A**
**Matrix: Water**
**Analysis Batch: 245141**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 244541**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| 2,4-D | 0.00200 | 0.002583 | | mg/L | | 129 | 55 - 145 |
| 2,4-DB | 0.00200 | 0.002066 | | mg/L | | 103 | 55 - 150 |
| Silvex (2,4,5-TP) | 0.00200 | 0.002989 | *+ | mg/L | | 149 | 55 - 140 |
| 2,4,5-T | 0.00200 | 0.002542 | | mg/L | | 127 | 60 - 130 |
| Dalapon | 0.00200 | 0.002707 | | mg/L | | 135 | 50 - 150 |
| Dicamba | 0.00200 | 0.002917 | *+ | mg/L | | 146 | 55 - 135 |
| Dichlorprop | 0.00200 | 0.002533 | | mg/L | | 127 | 55 - 140 |
| Dinoseb | 0.00200 | 0.002717 | *+ | mg/L | | 136 | 20 - 100 |
| MCPA | 0.200 | 0.1963 | | mg/L | | 98 | 55 - 145 |
| MCPP | 0.200 | 0.1914 | | mg/L | | 96 | 65 - 155 |
| Pentachlorophenol | 0.00200 | 0.002486 | | mg/L | | 124 | 50 - 135 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 2,4-Dichlorophenylacetic acid | 80 | | 45 - 150 |

## Method: 615 - Herbicides (GC) (Continued)

**Lab Sample ID: LCS 860-244541/4-A**
**Matrix: Water**
**Analysis Batch: 245141**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 244541**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hexachlorophene | | | 0.00800 | 0.005328 | | mg/L | | 67 | 60 - 135 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2,4-Dichlorophenylacetic acid* | *88* | | *45 - 150* |

**Lab Sample ID: LCSD 860-244541/3-A**
**Matrix: Water**
**Analysis Batch: 245141**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 244541**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-D | | | 0.00200 | 0.002668 | | mg/L | | 133 | 55 - 145 | 3 | 25 |
| 2,4-DB | | | 0.00200 | 0.002032 | | mg/L | | 102 | 55 - 150 | 2 | 25 |
| Silvex (2,4,5-TP) | | | 0.00200 | 0.003083 | *+ | mg/L | | 154 | 55 - 140 | 3 | 25 |
| 2,4,5-T | | | 0.00200 | 0.002654 | *+ | mg/L | | 133 | 60 - 130 | 4 | 25 |
| Dalapon | | | 0.00200 | 0.002773 | | mg/L | | 139 | 50 - 150 | 2 | 25 |
| Dicamba | | | 0.00200 | 0.003041 | *+ | mg/L | | 152 | 55 - 135 | 4 | 25 |
| Dichlorprop | | | 0.00200 | 0.002656 | | mg/L | | 133 | 55 - 140 | 5 | 25 |
| Dinoseb | | | 0.00200 | 0.002634 | *+ | mg/L | | 132 | 20 - 100 | 3 | 25 |
| MCPA | | | 0.200 | 0.2009 | | mg/L | | 100 | 55 - 145 | 2 | 25 |
| MCPP | | | 0.200 | 0.1957 | | mg/L | | 98 | 65 - 155 | 2 | 25 |
| Pentachlorophenol | | | 0.00200 | 0.002595 | | mg/L | | 130 | 50 - 135 | 4 | 25 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *2,4-Dichlorophenylacetic acid* | *82* | | *45 - 150* |

**Lab Sample ID: LCSD 860-244541/5-A**
**Matrix: Water**
**Analysis Batch: 245141**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 244541**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hexachlorophene | | | 0.00800 | 0.007916 | *1 | mg/L | | 99 | 60 - 135 | 39 | 25 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *2,4-Dichlorophenylacetic acid* | *136* | | *45 - 150* |

## Method: 632 - Carbamate and Urea Pesticides (HPLC)

**Lab Sample ID: MB 860-241181/1-A**
**Matrix: Water**
**Analysis Batch: 242053**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 241181**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbaryl | <1.85 | U | 5.00 | 1.85 | ug/L | | 06/09/25 13:43 | 06/11/25 23:14 | 1 |
| Diuron | <0.0514 | U | 0.0900 | 0.0514 | ug/L | | 06/09/25 13:43 | 06/11/25 23:14 | 1 |

## Method: 632 - Carbamate and Urea Pesticides (HPLC) (Continued)

**Lab Sample ID: LCS 860-241181/2-A**
**Matrix: Water**
**Analysis Batch: 242053**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 241181**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Carbaryl | 100 | 103.0 | | ug/L | | 103 | 70 - 130 |
| Diuron | 2.00 | 2.012 | | ug/L | | 101 | 70 - 130 |

**Lab Sample ID: LCSD 860-241181/3-A**
**Matrix: Water**
**Analysis Batch: 242053**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 241181**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Carbaryl | 100 | 104.6 | | ug/L | | 105 | 70 - 130 | 2 | 20 |
| Diuron | 2.00 | 2.062 | | ug/L | | 103 | 70 - 130 | 2 | 20 |

## Method: 1631E - Mercury, Low Level (CVAFS)

**Lab Sample ID: MB 192-35404/23**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 13:30 | 1 |

**Lab Sample ID: MB 192-35404/24**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 14:59 | 1 |

**Lab Sample ID: MB 192-35404/25**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 13:40 | 1 |

**Lab Sample ID: MB 192-35404/5**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 08:50 | 1 |

**Lab Sample ID: MB 192-35404/6**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 09:12 | 1 |

## Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

**Lab Sample ID: MB 192-35404/7**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.000500 | 0.000200 | ug/L | | | 06/11/25 08:59 | 1 |

**Lab Sample ID: LCS 192-35404/26**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00500 | 0.004361 | | ug/L | | 87 | 77 - 123 |

**Lab Sample ID: LCS 192-35404/8**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00500 | 0.004490 | | ug/L | | 90 | 77 - 123 |

**Lab Sample ID: 860-102871-3 MS**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Mercury LL Day 1 Blank**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.00500 | 0.004466 | | ug/L | | 89 | 71 - 125 |

**Lab Sample ID: 860-102871-3 MSD**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Mercury LL Day 1 Blank**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.00500 | 0.004221 | | ug/L | | 84 | 71 - 125 | 6 | 24 |

**Lab Sample ID: 860-102873-A-2 MS**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.00500 | 0.004332 | | ug/L | | 87 | 71 - 125 |

**Lab Sample ID: 860-102873-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 35404**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000200 | U | 0.00500 | 0.004347 | | ug/L | | 87 | 71 - 125 | 0 | 24 |

# QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## GC/MS Semi VOA

### Prep Batch: 241035

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 3511 | |
| MB 860-241035/1-A | Method Blank | Total/NA | Water | 3511 | |
| LCS 860-241035/2-A | Lab Control Sample | Total/NA | Water | 3511 | |
| LCS 860-241035/4-A | Lab Control Sample | Total/NA | Water | 3511 | |
| LCSD 860-241035/3-A | Lab Control Sample Dup | Total/NA | Water | 3511 | |
| LCSD 860-241035/5-A | Lab Control Sample Dup | Total/NA | Water | 3511 | |
| 860-102871-1 MS | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 3511 | |

### Analysis Batch: 241542

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 860-241035/1-A | Method Blank | Total/NA | Water | 625.1 | 241035 |
| LCS 860-241035/2-A | Lab Control Sample | Total/NA | Water | 625.1 | 241035 |
| LCS 860-241035/4-A | Lab Control Sample | Total/NA | Water | 625.1 | 241035 |
| LCSD 860-241035/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 | 241035 |
| LCSD 860-241035/5-A | Lab Control Sample Dup | Total/NA | Water | 625.1 | 241035 |

### Analysis Batch: 242399

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 625.1 | 241035 |
| 860-102871-1 MS | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 625.1 | 241035 |

### Analysis Batch: 243768

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 860-241035/2-A | Lab Control Sample | Total/NA | Water | 625.1 | 241035 |
| LCSD 860-241035/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 | 241035 |

### Prep Batch: 699766

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | D7065-11 | |
| MB 280-699766/1-A | Method Blank | Total/NA | Water | D7065-11 | |
| LCS 280-699766/2-A | Lab Control Sample | Total/NA | Water | D7065-11 | |
| LCSD 280-699766/3-A | Lab Control Sample Dup | Total/NA | Water | D7065-11 | |

### Analysis Batch: 699879

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | D7065-11 | 699766 |
| MB 280-699766/1-A | Method Blank | Total/NA | Water | D7065-11 | 699766 |
| LCS 280-699766/2-A | Lab Control Sample | Total/NA | Water | D7065-11 | 699766 |
| LCSD 280-699766/3-A | Lab Control Sample Dup | Total/NA | Water | D7065-11 | 699766 |

## GC Semi VOA

### Analysis Batch: 241050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 608.3 | 241078 |
| MB 860-241078/1-A | Method Blank | Total/NA | Water | 608.3 | 241078 |
| LCS 860-241078/2-A | Lab Control Sample | Total/NA | Water | 608.3 | 241078 |
| LCS 860-241078/4-A | Lab Control Sample | Total/NA | Water | 608.3 | 241078 |
| LCSD 860-241078/3-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 241078 |
| LCSD 860-241078/5-A | Lab Control Sample Dup | Total/NA | Water | 608.3 | 241078 |

## GC Semi VOA

### Prep Batch: 241078

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 3511 | |
| MB 860-241078/1-A | Method Blank | Total/NA | Water | 3511 | |
| LCS 860-241078/2-A | Lab Control Sample | Total/NA | Water | 3511 | |
| LCS 860-241078/4-A | Lab Control Sample | Total/NA | Water | 3511 | |
| LCSD 860-241078/3-A | Lab Control Sample Dup | Total/NA | Water | 3511 | |
| LCSD 860-241078/5-A | Lab Control Sample Dup | Total/NA | Water | 3511 | |

### Prep Batch: 244541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 3511 | |
| MB 860-244541/1-A | Method Blank | Total/NA | Water | 3511 | |
| LCS 860-244541/2-A | Lab Control Sample | Total/NA | Water | 3511 | |
| LCS 860-244541/4-A | Lab Control Sample | Total/NA | Water | 3511 | |
| LCSD 860-244541/3-A | Lab Control Sample Dup | Total/NA | Water | 3511 | |
| LCSD 860-244541/5-A | Lab Control Sample Dup | Total/NA | Water | 3511 | |

### Analysis Batch: 245141

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 615 | 244541 |
| MB 860-244541/1-A | Method Blank | Total/NA | Water | 615 | 244541 |
| LCS 860-244541/2-A | Lab Control Sample | Total/NA | Water | 615 | 244541 |
| LCS 860-244541/4-A | Lab Control Sample | Total/NA | Water | 615 | 244541 |
| LCSD 860-244541/3-A | Lab Control Sample Dup | Total/NA | Water | 615 | 244541 |
| LCSD 860-244541/5-A | Lab Control Sample Dup | Total/NA | Water | 615 | 244541 |

## HPLC/IC

### Prep Batch: 241181

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | CWA_Prep | |
| MB 860-241181/1-A | Method Blank | Total/NA | Water | CWA_Prep | |
| LCS 860-241181/2-A | Lab Control Sample | Total/NA | Water | CWA_Prep | |
| LCSD 860-241181/3-A | Lab Control Sample Dup | Total/NA | Water | CWA_Prep | |

### Analysis Batch: 242053

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR C | Total/NA | Water | 632 | 241181 |
| MB 860-241181/1-A | Method Blank | Total/NA | Water | 632 | 241181 |
| LCS 860-241181/2-A | Lab Control Sample | Total/NA | Water | 632 | 241181 |
| LCSD 860-241181/3-A | Lab Control Sample Dup | Total/NA | Water | 632 | 241181 |

## Metals

### Analysis Batch: 35404

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 860-102871-2 | Mercury LL Day 1 | Total/NA | Water | 1631E | |
| 860-102871-3 | Mercury LL Day 1 Blank | Total/NA | Water | 1631E | |
| 860-102871-4 | Mercury LL Day 2 | Total/NA | Water | 1631E | |
| 860-102871-5 | Mercury LL Day 2 Blank | Total/NA | Water | 1631E | |
| 860-102871-6 | Mercury LL Day 3 | Total/NA | Water | 1631E | |
| 860-102871-7 | Mercury LL Day 3 Blank | Total/NA | Water | 1631E | |

## Metals (Continued)

### Analysis Batch: 35404 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 192-35404/23 | Method Blank | Total/NA | Water | 1631E | |
| MB 192-35404/24 | Method Blank | Total/NA | Water | 1631E | |
| MB 192-35404/25 | Method Blank | Total/NA | Water | 1631E | |
| MB 192-35404/5 | Method Blank | Total/NA | Water | 1631E | |
| MB 192-35404/6 | Method Blank | Total/NA | Water | 1631E | |
| MB 192-35404/7 | Method Blank | Total/NA | Water | 1631E | |
| LCS 192-35404/26 | Lab Control Sample | Total/NA | Water | 1631E | |
| LCS 192-35404/8 | Lab Control Sample | Total/NA | Water | 1631E | |
| 860-102871-3 MS | Mercury LL Day 1 Blank | Total/NA | Water | 1631E | |
| 860-102871-3 MSD | Mercury LL Day 1 Blank | Total/NA | Water | 1631E | |
| 860-102873-A-2 MS | Matrix Spike | Total/NA | Water | 1631E | |
| 860-102873-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 1631E | |

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Client Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp

**Lab Sample ID: 860-102871-1**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3511 | | | 69.9 mL | 4 mL | 241035 | 06/09/25 06:45 | DR | EET HOU |
| Total/NA | Analysis | 625.1 | | 1 | 1 mL | 1 mL | 242399 | 06/14/25 02:37 | PXS | EET HOU |
| Total/NA | Prep | D7065-11 | | | 250 mL | 10 mL | 699766 | 06/11/25 09:41 | BC | EET DEN |
| Total/NA | Analysis | D7065-11 | | 1 | 200 uL | 200 uL | 699879 | 06/11/25 16:35 | MAB | EET DEN |
| Total/NA | Prep | 3511 | | | 43.5 mL | 5 mL | 241078 | 06/09/25 09:59 | CT | EET HOU |
| Total/NA | Analysis | 608.3 | | 1 | 0 mL | 0 mL | 241050 | 06/09/25 17:51 | KM | EET HOU |
| Total/NA | Prep | 3511 | | | 49.9 mL | 4 mL | 244541 | 06/24/25 13:10 | BH | EET HOU |
| Total/NA | Analysis | 615 | | 1 | | | 245141 | 06/27/25 02:37 | WP | EET HOU |
| Total/NA | Prep | CWA_Prep | | | 1000 mL | 10 mL | 241181 | 06/09/25 13:43 | DR | EET HOU |
| Total/NA | Analysis | 632 | | 1 | | | 242053 | 06/12/25 02:32 | YG | EET HOU |

## Client Sample ID: Mercury LL Day 1

**Lab Sample ID: 860-102871-2**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 1631E | | 1 | 5 mL | 5 mL | 35404 | 06/11/25 14:24 | KZD | EET ARK |

## Client Sample ID: Mercury LL Day 1 Blank

**Lab Sample ID: 860-102871-3**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 1631E | | 1 | 5 mL | 5 mL | 35404 | 06/11/25 13:59 | KZD | EET ARK |

## Client Sample ID: Mercury LL Day 2

**Lab Sample ID: 860-102871-4**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 1631E | | 1 | 5 mL | 5 mL | 35404 | 06/11/25 14:28 | KZD | EET ARK |

## Client Sample ID: Mercury LL Day 2 Blank

**Lab Sample ID: 860-102871-5**

**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 1631E | | 1 | 5 mL | 5 mL | 35404 | 06/11/25 14:33 | KZD | EET ARK |

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Client Sample ID: Mercury LL Day 3

**Lab Sample ID: 860-102871-6**
**Matrix: Water**
**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 1631E | | 1 | 5 mL | 5 mL | 35404 | 06/11/25 14:38 | KZD | EET ARK |

## Client Sample ID: Mercury LL Day 3 Blank

**Lab Sample ID: 860-102871-7**
**Matrix: Water**
**Date Collected: 06/03/25 00:00**
**Date Received: 06/07/25 12:00**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 1631E | | 1 | 5 mL | 5 mL | 35404 | 06/11/25 14:43 | KZD | EET ARK |

**Laboratory References:**

EET ARK = Eurofins Arkansas, 8600 Kanis Rd, Little Rock, AR 72204, TEL (501)224-5060
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

# Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arkansas DEQ | State | 88-00759 | 08-04-25 |
| Florida | NELAP | E871002 | 06-30-25 |
| Louisiana (All) | NELAP | 03054 | 12-20-25 |
| Oklahoma | NELAP | 1306 | 08-31-25 |
| Texas | NELAP | T104704215 | 06-30-25 |
| Texas | TCEQ Water Supply | T104704215 | 12-28-25 |
| USDA | US Federal Programs | 525-23-79-79507 | 03-20-26 |

## Laboratory: Eurofins Arkansas

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arkansas DEQ | State | 60-00889 | 03-02-26 |
| Florida | NELAP | E871188 | 06-30-25 |
| Iowa | State | 436 | 10-02-25 |
| Louisiana (All) | NELAP | 01946 | 06-30-25 |
| Oklahoma | State | 8709 | 08-31-25 |
| Oregon | NELAP | 4192 | 07-12-25 |
| Texas | NELAP | T104704575 | 06-25-25 |
| Washington | State | C1087 | 07-13-25 |

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| A2LA | Dept. of Defense ELAP | 2907.01 | 10-31-26 |
| A2LA | ISO/IEC 17025 | 2907.01 | 10-31-26 |
| Alabama | State Program | 40730 | 09-30-12 * |
| Alaska (UST) | State | 18-001 | 11-30-25 |
| Arizona | State | AZ0713 | 12-20-25 |
| Arkansas DEQ | State | 88-00687 | 04-02-26 |
| California | State | 2513 | 01-08-26 |
| Colorado | Petroleum Storage Tank Program | 2907.01 (A2LA) | 10-31-26 |
| Colorado | State | CO00026 | 06-30-25 |
| Connecticut | State | PH-0686 | 09-30-26 |
| Florida | NELAP | E87667 | 06-30-25 |
| Georgia | State | 4025 | 01-08-26 |
| Illinois | NELAP | 200017 | 06-22-25 |
| Iowa | State | 370 | 12-01-26 |
| Kansas | NELAP | E-10166 | 04-30-26 |
| Kentucky (WW) | State | KY98047 | 12-31-25 |
| Louisiana | NELAP | 30785 | 06-30-14 * |
| Louisiana (All) | NELAP | 30785 | 06-30-25 |
| Minnesota | NELAP | 1788752 | 12-31-25 |
| Montana (DW) | State | CERT0117 | 01-01-26 |
| Nevada | State | CO00026 | 07-31-25 |
| New Hampshire | NELAP | 2053 | 04-28-26 |
| New Jersey | NELAP | 230001 | 06-30-25 |
| New York | NELAP | 11964 | 06-22-25 |
| North Dakota | State | R-034 | 01-08-25 * |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

## Laboratory: Eurofins Denver (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Oklahoma | NELAP | 8614 | 08-31-25 |
| Oregon | NELAP | 4025 | 01-08-26 |
| Pennsylvania | NELAP | 68-00664 | 07-31-25 |
| South Carolina | State | 72002001 | 01-18-25 * |
| Texas | NELAP | TX104704183-08-TX | 09-30-09 * |
| Texas | NELAP | T104704183 | 06-25-25 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-25 |
| USDA | US Federal Programs | P330-20-00065 | 12-19-25 |
| Utah | NELAP | QUAN5 | 06-30-13 * |
| Utah | NELAP | CO00026 | 07-31-25 |
| Virginia | NELAP | 460232 | 06-14-25 |
| Washington | State | C583 | 08-03-25 |
| West Virginia DEP | State | 354 | 11-30-25 |
| Wisconsin | State | 999615430 | 08-31-25 |
| Wyoming (UST) | A2LA | 2907.01 | 06-09-26 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
SDG: PO 060625D

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 625.1 | Semivolatile Organic Compounds (GC-MS/MS) | EPA | EET HOU |
| D7065-11 | Determination of Nonylphenols | ASTM | EET DEN |
| 608.3 | Organochlorine Pesticides/PCBs in Water | EPA | EET HOU |
| 615 | Herbicides (GC) | EPA-01 | EET HOU |
| 632 | Carbamate and Urea Pesticides (HPLC) | EPA-01 | EET HOU |
| 1631E | Mercury, Low Level (CVAFS) | EPA | EET ARK |
| 3511 | Microextraction of Organic Compounds | SW846 | EET HOU |
| CWA_Prep | Liquid-Liquid Extraction (Separatory Funnel) | EPA | EET HOU |
| D7065-11 | Liquid-Liquid Extraction (Continuous) | ASTM | EET DEN |

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET ARK = Eurofins Arkansas, 8600 Kanis Rd, Little Rock, AR 72204, TEL (501)224-5060

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

# Sample Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Chimney Hill Long Permit Renewal Effluent PR Comp

Job ID: 860-102871-1
Sx G:8PO8π mπ c5x

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 860-102871-1 | Chimney Hill Long Permit Renewal Effluent PR Comp | Water | 06/03/25 00:00 | 06/07/25 12:00 |
| 860-102871-2 | Mercury LL Day 1 | Water | 06/03/25 00:00 | 06/07/25 12:00 |
| 860-102871-3 | Mercury LL Day 1 Blank | Water | 06/03/25 00:00 | 06/07/25 12:00 |
| 860-102871-4 | Mercury LL Day 2 | Water | 06/03/25 00:00 | 06/07/25 12:00 |
| 860-102871-5 | Mercury LL Day 2 Blank | Water | 06/03/25 00:00 | 06/07/25 12:00 |
| 860-102871-6 | Mercury LL Day 3 | Water | 06/03/25 00:00 | 06/07/25 12:00 |
| 860-102871-7 | Mercury LL Day 3 Blank | Water | 06/03/25 00:00 | 06/07/25 12:00 |

# SUBCONTRACT ORDER

**Sending Laboratory:**

Eastex Environmental Laboratory Coldspring
PO Box 1089
Coldspring, TX 77331

Phone 936-653-3249
eastexlab@eastex net
Project Manager Daniel Bowen
dbowen@eastexlabs.com

**Subcontracted Laboratory:**

**Eurofins Xenco LLC**
4147 Greenbriar Dr
Stafford, TX 77477

Phone 713-690-4444
Fax 713-690-5646

6/5

**PO 060625D**

**Requested Turnaround/0 Days**

**Sample ID: Chimney Hill Long Permit Renewal Effluent PR Comp** **Sample No: 5230892-01** ***Water*** **Sampled**
**06/03/2025 00:00**

Semi-Volatiles-Permit (625 1)
Pesticides-Permit 608 3
Pesticides Mirex,Dicofol 608 3
PCB-Permit 608 3
Organophosphorus Pesticides
Nonylphenol
Mercury LL Blank
Mercury LL
Carbaryl/Diuron EPA 632
Acidic Herbicides-Permit

*Containers Supplied* 18

**Special Instructions**

860-102871 Chain of Custody

☐ **See Attached**

Received Iced Y/N Temp 3 2

Chimney Hill

| Released By | Date & Time | Received By | Date & Time |
|---|---|---|---|
| | 6-6 2511 | | 6-7 25 1200 |

sco_2023SubcontractOrder rpt 10062023

Page 1 of 1

**Eurofins Houston**
4145 Greenbriar Dr
Stafford, TX 77477
Phone: 281-240-4200

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: N/A | Lab PM: Garza, Sylvia | Carrier Tracking No(s): N/A 9818 9106 9905 | COC No: 860-228163.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: N/A | E-Mail: Sylvia.Garza@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP - Texas | | Job #: 860-102871-1 |
| Address: 8600 Kanis Rd, | Due Date Requested: 6/16/2025 | | | Preservation Codes: - |
| City: Little Rock | TAT Requested (days): N/A | | | |
| State, Zip: AR, 72204 | | | | |
| Phone: 501-224-5060(Tel) 501-224-5075(Fax) | PO #: N/A | | | |
| Email: N/A | WO #: N/A | | | |
| Project Name: Chimney Hill Long Permit Renewal Effluent PR Comp | Project #: 86000838 | | | |
| Site: N/A | SSOW#: N/A | | | Other: N/A |

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 1631E_NP/LL Mercury | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code | | | | | | |
| LL Day 1 (860-102871-2) | 6/3/25 | Central | G | Water | | | X | 2 | |
| LL Day 1 Blank (860-102871-3) | 6/3/25 | Central | G | Water | | | X | 1 | |
| LL Day 2 (860-102871-4) | 6/3/25 | Central | G | Water | | | X | 2 | |
| LL Day 2 Blank (860-102871-5) | 6/3/25 | Central | G | Water | | | X | 1 | |
| LL Day 3 (860-102871-6) | 6/3/25 | Central | G | Water | | | X | 2 | |
| LL Day 3 Blank (860-102871-7) | 6/3/25 | Central | G | Water | | | X | 1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

| *Possible Hazard Identification* | *Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)* |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: 6/9 | Company | Received by: Ron Stephens | Date/Time: 6/10/25 845 | Company |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.9 |
|---|---|---|

Ver: 10/10/2024

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-102871-1
SDG Number: PO 060625D

**Login Number: 102871**
**List Number: 1**
**Creator: Jimenez, Nicanor**

**List Source: Eurofins Houston**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | | |
| The cooler's custody seal, if present, is intact. | | |
| Sample custody seals, if present, are intact. | | |
| The cooler or samples do not appear to have been compromised or tampered with. | | |
| Samples were received on ice. | | |
| Cooler Temperature is acceptable. | | |
| Cooler Temperature is recorded. | | |
| COC is present. | | |
| COC is filled out in ink and legible. | | |
| COC is filled out with all pertinent information. | | |
| Is the Field Sampler's name present on COC? | | |
| There are no discrepancies between the containers received and the COC. | | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | | |
| Sample containers have legible labels. | | |
| Containers are not broken or leaking. | | |
| Sample collection date/times are provided. | | |
| Appropriate sample containers are used. | | |
| Sample bottles are completely filled. | | |
| Sample Preservation Verified. | | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | | |
| Multiphasic samples are not present. | | |
| Samples do not require splitting or compositing. | | |
| Residual Chlorine Checked. | | |

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-102871-1
SDG Number: PO 060625D

**Login Number: 102871**
**List Number: 2**
**Creator: Stephens, Ren**

**List Source: Eurofins Arkansas**
**List Creation: 06/10/25 09:21 AM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-102871-1
SDG Number: PO 060625D

**Login Number: 102871**
**List Number: 3**
**Creator: Held, Wesley**

**List Source: Eurofins Denver**
**List Creation: 06/10/25 02:13 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# EASTEX ENVIRONMENTAL LABORATORY, INC.

P.O. Box 1089 * Coldspring, TX 77331 (936) 653-3249 * (800) 525-0508
P.O. Box 631375 * Nacogdoches, TX 75963-1375 (936) 569-8879 * FAX (936) 569-8951
www.eastexlabs.com

White Copy-Follows Samples
Yellow Copy-Laboratory
Pink Copy-Client Copy

**REPORT TO:** | **INVOICE TO:**

| | |
|---|---|
| Company: WD NC | Company: |
| Address: on file | Address: SAME |
| Attn: | Attn: |
| Phone#: | Phone#: |
| Email: | |
| P.O. #: | |
| Sampler's Name (print): Hadenwhitaker | |
| Sampler's Signature: | |
| Project Name: Chimney Hill | |

Remarks:

**INSTRUCTIONS:**

C or G: C= Composite G= Grab
Matrix: DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT= Other
Container Size: 1=Gallon 2=1/2 Gallon 3=Quart/Liter 4=500mL 5=250mL 6=125mL (4oz) 7=60mL (2 oz) 8= 40mL Vial 9=Other
Type: P= Plastic G= Glass T= Teflon S= Sterile
Preservatives: C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z= Zn Acetate ST=Sodium Thiosulfate H=HCL O= Other

ANALYSIS REQUESTED: E.coli / Permit Renewal - Long

| Work Order ID | Sample ID | Date | Time | Matrix | Field Data: C or G | DO | pH | Cl2 | Flow | Temp | Containers: # | Size | Type | Pres |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5230892 | Eff | 06/03/25 | 0906 | WW | G | | | | | | 1 | 6 | P/S | C/S |
| 0892 | Eff | | 0855 | WW | C | | | | | | 10 | 3 | AG | C |
| 0892 | Eff | | 0910 | WW | G | | | | | | 2 | 3 | AG | C/S |
| 0892 | Eff | | 0923 | WW | C | | | | | | 1 | 3 | P | C |
| 0892 | Eff | | 0926 | WW | G | | | | | | 1 | 3 | P | C |
| 0892 | Eff | | 0931 | WW | C | | | | | | 2 | 4 | P | C |
| 0892 | Eff | | 0936 | WW | C | | | | | | 1 | 5 | P | C |
| 0892 | Eff | | 0945 | WW | G | | | | | | 5 | 4 | P | C/S |
| 0892 | Eff | | 0915 | WW | G | | | | | | 5 | 7 | AG | C |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Relinquished By: | Received By: | Date | Time | Received Iced: YES / NO

Relinquished By: | Received By: | Date | Time | Received Iced: YES / NO

Relinquished By: | Received By and/or Checked in By: | Date 06/03/25 | Time 1554 | Received Iced: (YES) NO

**LAB USE ONLY** Sample Condition Acceptable: (YES) / NO | Temp °C 2.7 | *Therm ID 15 | Logged In By: | Date 6-4-25 | Time 1022

Alternate Check In: Date Time

*Thermometer has 0.0 factor and recorded temperature is actual temperature

# EASTEX ENVIRONMENTAL LABORATORY, INC.

P.O. Box 1089 * Coldspring, TX 77331 (936) 653-3249 * (800) 525-0508
P.O. Box 631375 * Nacogdoches, TX 75963-1375 (936) 569-8879 * FAX (936) 569-8951
www.eastexlabs.com

White Copy-Follows Samples
Yellow Copy-Laboratory
Pink Copy-Client Copy

**REPORT TO:**

**Company:** WDMC
**Address:**
**Attn:**
**Phone#:**
**Email:**
**P.O. #:**
**Sampler's Name (print):** Russell Johnson
**Sampler's Signature:**
**Project Name:** CHIMNEY HILL

**INVOICE TO:**

**Company:**
**Address:**
**Attn:**
**Phone#:**

**Remarks:** DAY 1 LL HG

**INSTRUCTIONS:**

**C or G:** C= Composite G= Grab
**Matrix:** DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT= Other
**Container Size:** 1=Gallon 2=1/2 Gallon 3=Quart/Liter 4=500mL 5=250mL 6=125mL (4oz) 7=60mL (2 oz) 8= 40mL Vial 9=Other
**Type:** P= Plastic G= Glass T= Teflon S= Sterile
**Preservatives:** C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z= Zn Acetate ST=Sodium Thiosulfate H=HCL O= Other

| | | | | | Field Data | | | | | | Containers | | | | ANALYSIS REQUESTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Work Order ID | Sample ID | Date | Time | Matrix | C or G | DO | pH | Cl2 | Flow | Temp | # | Size | Type | Pres | LL HG |
| 5230892 | EFF 9AM | 06-02-25 | 0900 | WW | G | | | | | | 2 | 8 | G | C | X |
| | EFF 11AM | 06-02-25 | 1100 | WW | G | | | | | | 2 | 8 | G | C | X |
| | EFF 1PM | 06-02-25 | 1500 | WW | G | | | | | | 2 | 8 | G | C | X |

Relinquished By: Russell Johnson — Received By: [signature] — Date 06/03/25 Time 0959 — Received Iced: YES / NO
Relinquished By: Russell Johnson — Received By: — Date — Time — Received Iced: YES / NO
Relinquished By: Russell Johnson — Received By and/or Checked in By: [signature] — Date 06/03/25 Time 1554 — Received Iced: YES / NO

**LAB USE ONLY** Sample Condition Acceptable: (YES) / NO — Temp °C 2.7 — *Therm ID 15 — Logged In By: [signature] — Date 6-4-25 — Time 1022
Alternate Check In: — Date — Time

*Thermometer has 0.0 factor and recorded temperature is actual temperature

EASTEX
ENVIRONMENTAL LABS INC.

NELAP ACCREDITED TNI LABORATORY

20 June 2025

Water District Management
Chimney Hill
P.O. Box 579
Spring, TX 77383

RE: Chimney Hill Long Permit Renewal

Enclosed are the results of analyses for samples received by the laboratory on 06/12/25 13:40, with Lab ID Number 5242165. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Bowen
Chief Operations Officer

EASTEX ENVIRONMENTAL LABS INC.

P.O. Box 1089 Coldspring Tx 77331
Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

NELAP ACCREDITED TNI LABORATORY

Chimney Hill
P.O. Box 579
Spring TX, 77383

## LABORATORY ANALYTICAL REPORT

Project: Chimney Hill Long Permit Renewal
Sample Matrix: Water
Client Matrix: Water

Sample Date and Time: 06/12/2025 09:00
Collector: WDM
Sample Type:Composite
Print Date: 6/20/2025

### Effluent PR Comp

**5242165-01 (Water)**

| Analyte | Result | Reporting Limit | Units | Nelac Status | Batch | Analyzed Date & Time | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| **Eastex Environmental Laboratory - Coldspring** | | | | | | | | |
| Cyanide | 6.64 | 5.00 | ug/L | A | B5F6155 | 06/18/2025 13:36 | SM 4500 CN- E | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document.*
*This analytical report must be reproduced in its entirety.*

*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved

P.O. Box 1089 Coldspring Tx 77331
Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

Chimney Hill
P.O. Box 579
Spring TX, 77383

## SM 4500 CN- E - Quality Control

## Eastex Environmental Laboratory - Coldspring

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B5F6155 - No Prep** | | | | | | | | | | |
| **Blank (B5F6155-BLK1)** | | | | **Prepared & Analyzed:** 6/18/2025 1:36:00PM | | | | | | |
| Cyanide | ND | 5.00 | ug/L | | | | | | | |
| **LCS (B5F6155-BS1)** | | | | **Prepared & Analyzed:** 6/18/2025 1:36:00PM | | | | | | |
| Cyanide | 37.4 | | ug/L | 40.0 | | 93.5 | 90-110 | | | |
| **Matrix Spike (B5F6155-MS1)** | **Source: 5240622-01** | | | **Prepared & Analyzed:** 6/18/2025 1:36:00PM | | | | | | |
| Cyanide | 599 | 5.00 | ug/L | 40.0 | ND | NR | 90-110 | | | 23 |
| **Matrix Spike Dup (B5F6155-MSD1)** | **Source: 5240622-01** | | | **Prepared & Analyzed:** 6/18/2025 1:36:00PM | | | | | | |
| Cyanide | 516 | 5.00 | ug/L | 40.0 | ND | NR | 90-110 | 14.9 | 20 | |



*The results in this report apply to the samples analyzed in accordance with the chain of custody document.*
*This analytical report must be reproduced in its entirety.*

*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved

P.O. Box 1089 Coldspring Tx 77331
Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

Chimney Hill
P.O. Box 579
Spring TX, 77383

## Notes and Definitions

| | |
|---|---|
| 23 | Spike recovery outside of acceptance limits due to matrix interference. |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |


*The results in this report apply to the samples analyzed in accordance with the chain of custody document.*
*This analytical report must be reproduced in its entirety.*
*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved

# EASTEX ENVIRONMENTAL LABORATORY, INC.

P.O. Box 1089 * Coldspring, TX 77331 (936) 653-3249 * (800) 525-0508
P.O. Box 631375 * Nacogdoches, TX 75963-1375 (936) 569-8879 * FAX (936) 569-8951
www.eastexlabs.com

White Copy-Follows Samples
Yellow Copy-Laboratory
Pink Copy-Client Copy

**REPORT TO:**

Company: WBMC
Address:
ONTX
Attn:
Phone#:
Email:
P.O. #:
Sampler's Name (print): Dustin Parker
Sampler's Signature:
Project Name: Chimney Hill

**INVOICE TO:**

Company:
Address: SAME
Attn:
Phone#:

**Remarks:** No Ecoli

**INSTRUCTIONS:**

C or G: C= Composite G= Grab
Matrix: DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT= Other
Container Size: 1=Gallon 2=1/2 Gallon 3=Quart/Liter 4=500mL 5=250mL 6=125mL (4oz) 7=60mL (2 oz) 8= 40mL Vial 9=Other
Type: P= Plastic G= Glass T= Teflon S= Sterile
Preservatives: C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z= Zn Acetate ST=Sodium Thiosulfate H=HCL O= Other

| Work Order ID | Sample ID | Date | Time | Matrix | C or G | Field Data: DO | pH | Cl2 | Flow | Temp | Containers: # | Size | Type | Pres | ANALYSIS REQUESTED: CBOD TSS | NH3 | TAK | Cyanide | Ecoli | MLSSMURS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6241471 | EFF | 6-12 | 820 | WW | C | | | | | | 2 | 3 | P | C | ✓ | | | | | |
| 1471 | EFF | 6-12 | 820 | WW | C | | | | | | 1 | 6 | P | SS | | ✓ | | | | |
| 1471 | EFF | 6-12 | 820 | WW | C | | | | | | 1 | 8 | P | C | | | ✓ | | | |
| 0215 ~~1471~~ | EFF | 6-12 | 820 | WW | C | | | | | | 1 | 3 | P | CO | | | | ✓ | | |
| ~~1470~~ | EFF | 6-12 | | WW | G | | | | | | 1 | 6 | PS | GS | | | | | ✓ | |
| 1472 | INF | 6-12 | 806 | WW | G | | 7.4 | | | | 3 | 5 | P | C | ✓ | | ✓ | | | |
| 1472 | INF | 6-12 | 806 | WW | G | | | | | | 1 | 8 | P | GS | | ✓ | | | | |
| 1473 | AER | 6-12 | 832 | WW | G | | | | | | 1 | 6 | P | C | | | | | ✓ | |
| 1474 | Faucet | 6-12 | 830 | WW | G | | | | | | 1 | 8 | P | C | | ✓ | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | FIELD | 6-12 | 830 | | | 7.5 | 6.5 | | | 26.4 | | | | | | | | | | |

Relinquished By: | Received By: | Date | Time | Received Iced: YES / NO
Relinquished By: | Received By: | Date | Time | Received Iced: YES / NO
Relinquished By: | Received By and/or Checked in By: Robin Ortega | Date 6-12-25 | Time 1430 | Received Iced: YES / NO

**LAB USE ONLY** Sample Condition Acceptable: YES / NO
Alternate Check In: Date Time

| Temp C | *Therm ID | Logged In By: | Date | Time |
|---|---|---|---|---|
| 1.2 | 25 | CT | 6-12-25 | 1437 |

*Thermometer has 0.0 factor and recorded temperature is actual temperature

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 10

## SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

To Whom It May Concern,

Liquid Sludge removed from permitted WWTP's is transported to Mount Houston WWTP (WQ0011154001) via 7000 gallon tanker trailers (transporter permit #21484) for processing (WQ 0005023000).

A belt press is used to dewater the liquid sludge. At the completion of the belt press the solids are discharged to end dumps via conveyor, discharged solids is approximately 16%. Decant water is returned to the lift station that feeds the head of the plant. All cake is transported via end dump trailers to a TCEQ permitted disposal site. Currently, Magna Flow is utilizing Evergro Organic Recycling, permit number WQ0005244000.

A second option for removal of sludge from permitted WWTP's is Mobile Dewatering Trailers or Belt Press, liquid sludge is pumped into mobile dewatering trailers or Belt Press, dewatered onsite to a semi liquid state and transported (transporter #21484) to a TCEQ Permitted Landfill. (Evergro Organic Recycling #WQ0005244000, Atascocita #1307-B).

Sludge Roll Off Containers will be transported and disposed at a TCEQ permitted disposal site (Evergro Organic Recycling #WQ0005244000, Atascocita #1307-B).

Jerry McCurtain

Vice President
Magna Flow Environmental

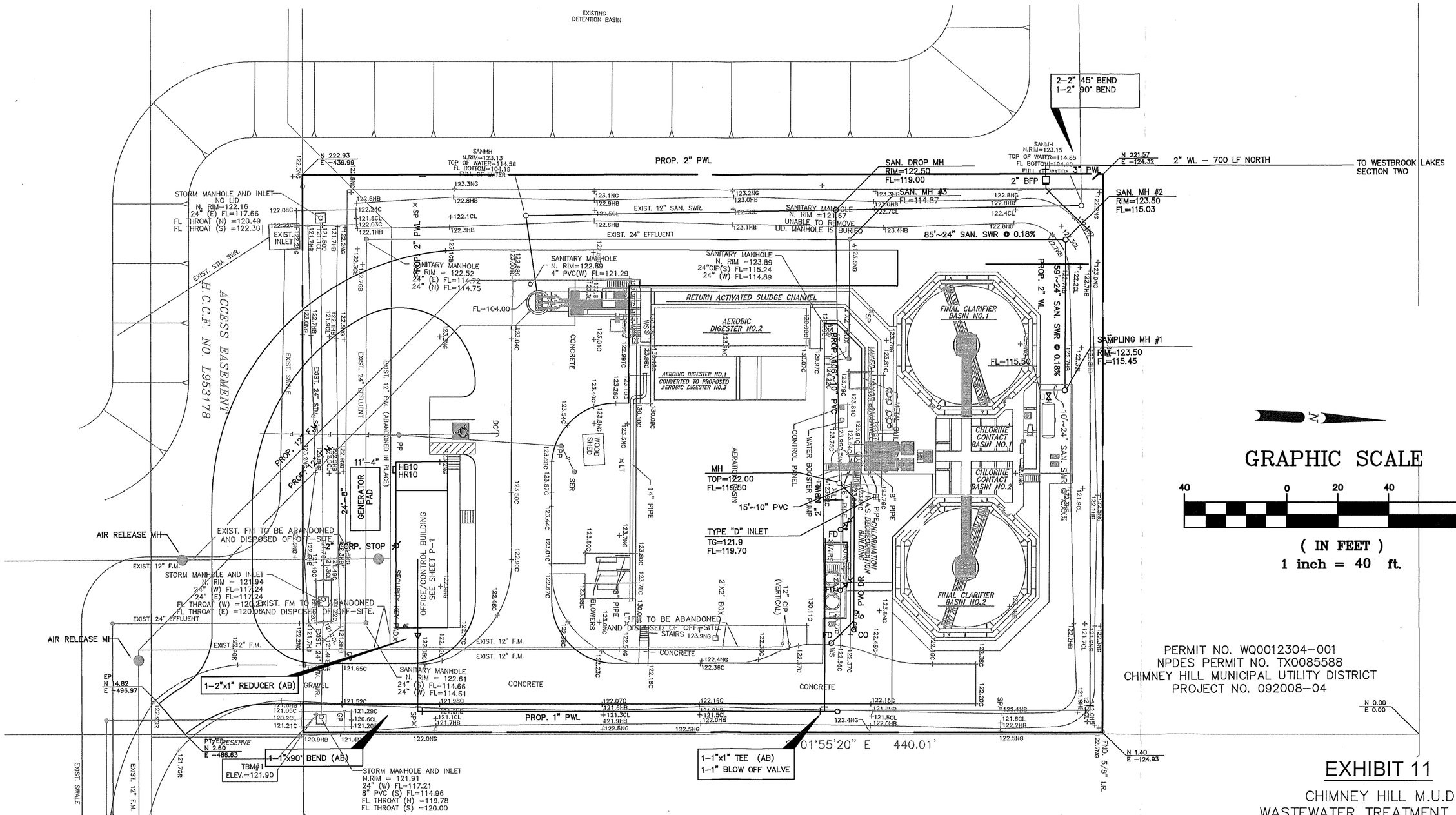
**P.O. Box 60709 * Houston, Texas 77205-0709 * (281) 448-8585 * Fax: (281) 397-7195**

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 11

## SITE PLAN

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




## GRAPHIC SCALE

40 0 20 40 80

( IN FEET )

1 inch = 40 ft.

PERMIT NO. WQ0012304-001
NPDES PERMIT NO. TX0085588
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT
PROJECT NO. 092008-04

# EXHIBIT 11

CHIMNEY HILL M.U.D.
WASTEWATER TREATMENT PLANT

# SITE PLAN

(Ref. TR 12)

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025
713 / 942 / 2700
Texas Engineering Registration No. F-000802

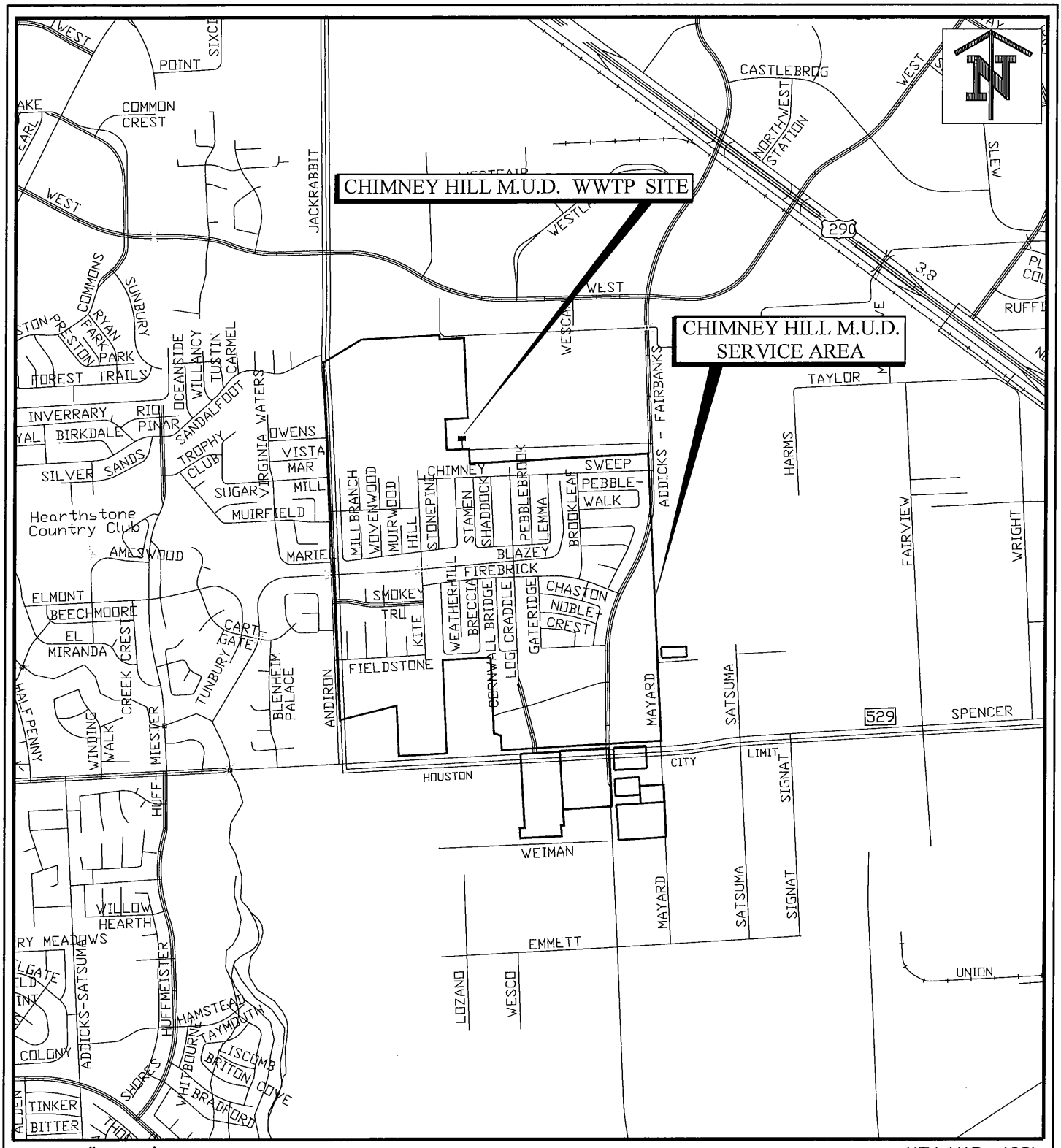
AUGUST 2016

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 12

## SERVICE AREA

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




SCALE: 1"=2000'

KEY MAP: 408L

## EXHIBIT 12

HARRIS COUNTY
CHIMNEY HILL MUD
WASTEWATER TREATMENT PLANT

## SERVICE AREA

(Ref. TR 4)

PERMIT NO. WQ0012304-001
NPDES PERMIT NO. TX0085588
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT
PROJECT NO. 092008-04

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025
713 / 942 / 2700
Texas Engineering Registration No. F-000802

OCTOBER, 2016

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 13

## RATE ORDER

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

**AMENDED ORDER ADOPTING CONSOLIDATED RATE ORDER AND RULES AND REGULATIONS; DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN; ESTABLISHING A WASTEWATER CONTROL ORDER; ESTABLISHING CERTAIN OTHER POLICIES; AND PROVIDING PENALTIES FOR VIOLATION THEREOF**

THE STATE OF TEXAS §
COUNTY OF HARRIS §
CHIMNEY HILL MUNICIPAL UTILITY DISTRICT §

WHEREAS, the Board of Directors (the "Board") of Chimney Hill Municipal Utility District (the "District") has from time to time adopted certain orders ("Rate Order") and Rules and Regulations establishing the rates and conditions under which water and sanitary sewer service would be provided; and

WHEREAS, the Board of the District has determined that it is in the best interest of the District to amend and restate its Rate Order;

IT IS, THEREFORE, ORDERED BY THE BOARD OF DIRECTORS OF CHIMNEY HILL MUNICIPAL UTILITY DISTRICT THAT:

## ARTICLE I
## DEFINITIONS

For the purpose of this Order, the following terms shall have the meaning set out hereafter:

A. "Commercial Unit" - shall mean any structure designed for business purposes including office buildings, hotels, retail stores, warehouses, service stations, churches, schools, recreational centers and all other establishments not generally considered as residential structures or defined herein as a residential structure.

B. "Customer" - shall mean any person, partnership, corporation, non-profit corporation, trust or other legal entity served by the District's System with water and/or sewer services to a residence or business establishment owned or occupied by such person, partnership, corporation, non-profit corporation, trust or legal entity.

C. "Domestic Waste" - shall mean liquid-carried sanitary sewage discharge which is normally discharged from residential food preparation and bathroom facilities.

D. "Esplanade Connection" - shall mean a water system connection serving public right-of-way or other public common areas.

E. "Multi-family Unit" - shall mean the individual dwelling unit served through the Multi-family Residential Connection's master meter and shall include condominiums and all individual dwelling units served by a master meter.

F. "Multi-family Residential Connection" - shall mean all multiplex residential connections which are served by a master meter.

G. "Non-taxable" - shall mean any entity not subject to property taxation pursuant to the provisions of the Texas Property Tax Code.

H. "Operator" - shall mean the person, company or corporation which is employed by or under contract with the District to operate the District's water and sewer system, collect amounts owed to the District for such services, report monthly to the District on the operations of the District's System and perform any additional services set out in its contract with the District.

I. "Rules and Regulations" - shall mean the Amended and Restated Rules and Regulations Governing Water and Sanitary Sewer Facilities, Service Lines, and Connections attached to this Order as Appendix "A" and incorporated herein for all purposes.

J. "Separate Connection" - shall mean each residential unit designed for occupancy by a separate family, including each separate unit located within a single multi-unit building, and each commercial unit designed for use by a separate business, including separate establishments within a single building, and which is separately metered.

K. "Single-family Unit" - shall mean any single-family structure within the District designed for occupation as a residence whether by the owner or by a renter or lessee, including any single-family residence, townhouse, multiplex, apartment building, or other structure generally considered to be and used solely for residential purposes.

L. "Single-family Residential Connection" - shall mean any single-family unit which is served by a separate meter.

M. "System" - shall mean the water and/or sanitary sewer facilities of the District and all extensions and additions thereto, whether now in place or hereafter constructed.

## ARTICLE II
## CONNECTION POLICIES; TAP FEES

Section 2.01. Initiation of Water and Sanitary Sewer Connections. Each person desiring a water and sanitary sewer service connection to the District's System shall be required to pay such fees as set forth in this Order. No service shall be established or re-established until such fees are paid. All service connections are subject to the provisions of the District's Rules and Regulations and all other rules, regulations, and policies of the District. It shall be the policy of the District that no Customer shall receive water service without also taking sanitary sewer service from the District, except for irrigation connections. It shall be the policy of the District that no Customer shall receive sanitary sewer service without also taking water service from the District.

Section 2.02. Policies Governing Initial Connections.

A. Certification of System. Connections shall not be made to the District's System or portions of the System until the District's engineer has certified that the System or applicable portion thereof is operable.

B. Availability of Access/Obstructions. By application for connection to the District's System, the Customer shall be deemed to be granting to the District and its representatives a right of ingress and egress to and from the meter or point of service for such installation, maintenance and repair as the District, in its judgment, may deem reasonably necessary. The Customer shall also be deemed to be granting to the District and its representatives a right of ingress and egress to the Customer's property, including the interior and exterior of the Customer's premises, for the purpose of performing the inspections and completing the Customer Service Inspection Certifications required by the District's Rules and Regulations. Taps and connections will not be made when, in the opinion of the District's engineer or Operator, the work area is obstructed by building materials or other debris or the work area is not completed or finished to grade. When sidewalks, driveways or other improvements have been constructed prior to application for service, such application shall be construed and accepted as the Customer's waiver of a claim for any damages to such improvements resulting from the reasonable actions of the District's Operator in installation of the connection.

Section 2.03. Connections by District Operator. All connections to the District's sewer system shall be made in accordance with the District's Rules and Regulations. No person except the District's Operator or his authorized agent shall be permitted to tap or make any connection to the mains or distribution piping of the District's water system, except for emergency fire-fighting purposes, or make any repairs or additions to or alterations in any meter, box, tap, pipe, cock or other fixture connected with the water service or any manhole, main, trunk or appurtenance of the District's sanitary sewer system, unless otherwise specified by the Board of Directors of the District.

Section 2.04. Inspections and Fees.

A. Sewer Inspection and Fees. Sewer connections and house service lines shall be inspected by the District's Operator for compliance with the Rules and Regulations. An inspection fee of $35.00 shall be charged for all connections. Installations which fail to conform at any time to the Rules and Regulations shall be disconnected. Any Customer whose connection is disconnected for such failure shall be notified as to the basis for such disconnection. After noted deficiencies have been corrected, a reinspection shall be made upon payment to the District of a reinspection fee of $35.00. If subsequent reinspections are required before the sewer connection and service lines are in compliance with the Rules and Regulations, a reinspection fee of $35.00 shall be charged for each such reinspection. A fee of $175.00 shall be charged by the District for the expense of making a connection and inspection where a stack, wye, or stub-out in the sewer line is not available and where the sewer line must be tapped.

B. Customer Service Inspection Fees. If the District's Operator performs the inspection and completes the Customer Service Inspection Certification required by Article III of the Rules and Regulations, the District shall charge the Customer a fee of $100.00 to cover the costs of such inspection and certification.

C. Pre-Construction Inspection and Fees. A builder must contact the District's Operator, prior to starting any work on a lot, to do an inspection to verify the District facilities. If any District facility is either damaged or cannot be located, the District's Operator will make necessary repairs or locate and make visible the equipment at the expense of the District. A copy of the inspection will be given to the builder's

representative. After the inspection and any necessary work is completed, the builder will then be responsible for paying the costs of all damages, adjustments, relocations, and repairs found during the Final Builder Inspection. The cost for the inspection is $60.00 payable with the tap fee.

D. Final Builder Inspection and Fees. Upon receipt of instruction from a builder to transfer an account to an initial Customer, the District's Operator shall make a final inspection of the property and make note of the condition of all District facilities. The District's Operator will repair any damaged District facilities, and the builder will be held responsible for all costs incurred. A fee of $60.00 shall be charged by the District to cover the cost of such inspection and will be collected at the time the tap fee is paid.

E. Backflow Prevention Assembly Inspection and Fees. The backflow prevention assemblies required at all commercial establishments pursuant to Section 3.06.A. of the Rules and Regulations shall be tested annually by the Operator. A fee of $100.00 shall be charged by the District to cover the cost of such inspection and shall be billed on the customer's regular bill. The Customer shall be responsible for the cost of any repairs.

Section 2.05. Builder's Deposit. Each builder of a residence, commercial unit or other structure shall, at the time a request for a water tap is made, pay a deposit of $500 for the first lot for which a water tap has been requested and $100 for each additional lot thereafter. Each $100.00 deposit shall be refunded within ninety (90) days after the builder certifies the sale of the residence, commercial unit or other structure that is located on the lot for which the deposit was paid, less any amounts forfeited as provided herein. The $500.00 deposit shall be refunded within ninety (90) days after the builder certifies the sale of its last residence, commercial unit or other structure within the District, less any amounts forfeited as provided herein. The District shall deduct from the deposit the cost to repair any damage caused to the District's property by the builder or the builder's employees, contractors, subcontractors or agents and shall deduct any delinquent water and sewer service bills of the builder. In the event any amounts are so deducted from the builder's deposit, it will be incumbent on the builder to reinstate the original amount of the deposit, and failure to do so will result in the suspension of any additional water taps for the builder.

Section 2.06. Temporary Water Service.

A. Temporary Connections. The District's Operator shall be authorized to make a temporary connection to any fire hydrant or flushing valve upon request for temporary water service. All temporary service shall be metered and billed to the temporary Customer as provided herein. All unauthorized withdrawal of water from flushing valves, fire hydrants, or other appurtenances of the District's System without prior approval of the District, except for emergency fire-fighting purposes, is prohibited.

B. Application and Deposit. Each temporary Customer desiring temporary water service shall be required to execute an application for such temporary service and shall provide a minimum security deposit of $500.00, but not more than $1000.00, with such determination to be made by the District's Operator depending on the length of time temporary service is required and estimated amount of water to be used. The deposit shall be made by cashier's check or money order payable to the District. The deposit shall be used by the District to secure the payment for temporary water supplied by the District, the installation fee, and the cost of repair of any damages caused by the

temporary Customer. The balance of the security deposit, if any, shall be refunded after disconnection from the District's System.

C. Fees and Rates. A fee of $50.00 for costs of installation, plus the cost of the metered water, shall be charged for temporary water service. The following rates for the sale of water for each temporary water service connection shall be in effect from the effective date hereof until such time as the Board amends said rates:

1. In-District Temporary Customers: The District shall charge each temporary Customer within the District the highest rate charged to commercial Customers within the District.

2. Out-of-District Temporary Customers: The District shall charge each temporary Customer outside the District two times the highest rate charged to commercial Customers within the District.

Section 2.07. Service to Out-of-District Customers. It is the Board's general policy not to provide water and sewer service to property located outside the boundaries of the District; however, requests for water and sewer service for property located outside the boundaries of the District shall be considered on a case by case basis and governed by separate agreement.

Section 2.08. Annexations, Utility Commitments, and Other Requests. The policies and procedures related to applications for water and sewer service, annexations, utility commitments, and other requests for service or information from the District or the District's consultants are set forth in Appendix "D," attached hereto and incorporated herein for all purposes.

Section 2.09. Water Taps. The following charges for the tap of water lines shall be in effect within the District from and after the effective date hereof until amended by the Board of the District:

A. Residential taps (meter sizes up to and including 1"): $1,000.00 per connection but in no event shall the cost exceed three (3) times the District's actual and reasonable costs.

B. Connections to Non-taxable Entities: The cost to the District, including the cost of all facilities that are necessary to provide District services to such entity and that are financed or to be financed in whole or in part by tax- supported bonds of the District.

C. All other water taps (to be considered commercial): To be determined by the District's Board of Directors after consultation with the District's Operator and Engineer, but in no event more than three (3) times the District's actual and reasonable cost.

Section 2.10. Title to Facilities. Title to all water meters, water and sewer taps, and all other appurtenances, including meter boxes, shall lie in the District.

Section 2.11. Maintenance and Repair. It shall be the responsibility of each Customer to maintain the water and sewer lines from the point of connection to the District's water and sewer system to the building served.

ARTICLE III
SERVICE RATES AND FEES

Section 3.01. Water Service Rates. The following monthly rates for the sale of water shall be in effect for each Separate Connection within the District from the effective date hereof until such time as the Board of Directors amends said rates:

A. Single-Family Residential Connections:

During construction and after the initial occupancy, single-family residential connections shall be charged as follows:

| | |
|---|---|
| First 5,000 gallons | $25.58 (minimum) |
| 5,001 to 10,000 gallons | $3.92/1,000 gallons |
| 10,001 to 20,000 gallons | $4.23/1,000 gallons |
| 20,001 to 25,000 gallons | $4.75/1,000 gallons |
| All over 25,000 gallons | $5.27/1,000 gallons |

B. Commercial Units:

Each commercial unit served by a separate meter, whether occupied by one or more separate businesses, shall be charged for water services at a rate equivalent to a single-family residential connection.

C. Clubs and Private Schools:

Each club or private school shall be charged for water services at a rate equivalent to a single-family residential connection.

D. Multi-Family Units:

1. Single Meter. Each multi-family unit which is served by a single meter shall be charged for water services at a rate equivalent to a single-family residential connection; provided, that a minimum charge equal to $25.58 times the number of residential units shall be made.

2. Multiple Meters. If a multi-family unit is served by more than one meter, then water delivered through each meter shall be charged for water services at a rate equivalent to a single-family residential connection.

E. Non-Taxable Customers:

After connection to the District's water system, each non-taxable Customer shall be charged as follows:

| | |
|---|---|
| First 5,000 gallons | $41.76 (minimum) |
| All over 5,000 gallons | $ 5.48/1,000 gallons |

F. Esplanade Connections:

Where a Customer such as a homeowners association has a separate metered water connection for irrigation of common areas such as esplanades, water delivered through the irrigation meter shall be charged as follows:

| | |
|---|---|
| First 7,000 gallons | $25.00 (minimum) |
| 7,001 to 15,000 gallons | $4.30 / 1,000 gallons |
| All over 15,000 gallons | $7.00 / 1,000 gallons |

No sewer charge shall apply to water delivered through the irrigation meter.

G. Swimming Pool Connections (Homeowners Associations):

Where a Customer such as a homeowners association has a separate metered water connection for a swimming pool, water delivered through the swimming pool meter shall be charged as follows:

| | |
|---|---|
| First 7,000 gallons | $25.00 (minimum) |
| 7,001 to 15,000 gallons | $4.30 / 1,000 gallons |
| 15,001 to 50,000 gallons | $5.65 / 1,000 gallons |
| All over 50,000 gallons | $7.00 / 1,000 gallons |

No sewer charge shall apply to water delivered through the swimming pool meter, subject to confirmation by the District's Operator that the swimming pool does not drain into the District's sanitary sewer system. Swimming pools that drain into the storm sewer system must comply with Harris County Storm Water Quality Regulations.

Section 3.02. Sewer Service Rates. The following monthly rates for the collection and disposal of sewage shall be in effect for each Separate Connection within the District from the effective date hereof until such time as the Board amends said rates:

A. Single-Family Residential Connections:

Charges for sanitary sewer service shall be based on metered water usage as follows:

| | |
|---|---|
| First 10,000 gallons | $32.50 (minimum) |
| 10,001 to 20,000 gallons | $ 1.25/1,000 gallons |
| All over 20,000 gallons | $ 1.75/1,000 gallons |

B. Commercial Units, Including Clubs and Private Schools:

Each commercial unit, including clubs and private schools, served by a separate meter, whether occupied by one or more separate businesses, shall be charged for sewer service as follows:

| | |
|---|---|
| First 10,000 gallons | $16.00 (minimum) |
| 10,001 to 20,000 gallons | $ 1.25/1,000 gallons |
| All over 20,000 gallons | $ 1.75/1,000 gallons |

C. Multi-Family Unit:

Multi-family units shall be charged for sewer services at a rate equivalent to a commercial connection. A multi-family unit will begin paying for sewer service when completed and ready for occupancy.

D. Non-Taxable Customers:

Following connection to the District's sanitary sewer collection system, each tax exempt user shall be charged monthly the greater of $30.00 (minimum) or $4.25 per 1,000 gallons of metered water usage.

Section 3.03. Transfer Fee. A fee of $25.00 shall be charged by the District to cover the expense to the District for the transfer of water and sewer service from the builder of any residential unit to its initial occupant and an additional fee of $25.00 will be charged by the District to cover expense to the District for the transfer of water and sewer service to each subsequent occupant of any residential unit. This fee shall cover the establishment of an account to provide service to the new occupant as a separate item on that Customer's first monthly water and sewer invoice.

Section 3.04. Trap Inspections and Fees. The District's Operator will periodically inspect any traps and take samples and flow measurements from any sampling wells that are required to be installed pursuant to the provisions of the Wastewater Control Order, attached hereto as Appendix "C." The District shall bill the Customer for the costs of such inspections, sampling, and lab analysis as follows:

| | |
|---|---|
| Trap inspection | $25.00 |
| Sampling | $25.00 |
| Lab analysis | Cost + 15% |

If a trap or sampling well fails an initial inspection by the District's Operator, the Customer will have five (5) business days to correct the deficiencies noted by the Operator. The Customer will then pay a Reinspection Fee of $500, after which the Operator will reinspect the trap or sampling well. If the trap or sampling well fails the Operator's recertification inspection, water service to the Customer will be disconnected. Service to the Customer will remain disconnected until all deficiencies in the trap or sampling well have been corrected and the Customer has paid another Reinspection Fee of $750 (payment of a reconnection fee in addition to the Reinspection Fee will not be required). All Reinspection Fees will be payable by cashier's check or money order at the office of the District's Operator prior to the recertification inspections.

Section 3.05. Regulatory Assessment. Pursuant to Section 5.235, Texas Water Code, as amended, and 30 Texas Administrative Code §291.76, as amended, the District shall pay, by January 30 of each year, a regulatory assessment to the Texas Commission on Environmental Quality in the amount required by law based on the total charges for retail water and sewer service collected from its retail customers in the prior twelve calendar months.

At the end of each calendar year, the Operator or Bookkeeper shall prepare a written statement indicating (i) the total charges collected for retail water and sewer service for the year; and (ii) the regulatory assessment due and payable to the Texas Commission on Environmental Quality. The Operator shall deliver the written statement to the District's Bookkeeper for payment.

Section 3.06. West Harris County Regional Water Authority Water Import Fee. Pursuant to House Bill 1842 of the 77th Legislature (2001) creating the West Harris County Regional Water Authority (the "Water Authority") and to the Amended Rate Order adopted by the Water Authority on December 14, 2011, the Water Authority may levy a water import fee (the "Import Fee") on the District based on the total amount of water provided by the District to certain tracts located within the boundaries of the Water Authority.

In the event that the District incurs any costs pertaining to the levy of the Import Fee, the District hereby reserves the right to back-charge an amount equivalent to the Import Fee (the "Import Fee Charge") to any Customer located in those tracts in the District that are subject to the Import Fee based on the Customer's total amount of water usage during the billing period.

The Operator shall list the Import Fee Charge on the Customer's bill as a separate line item and shall collect the Import Fee Charge in addition to other charges. Failure by a Customer to pay the Import Fee Charge shall result in the termination of water and sewer service in accordance with the provisions of this Rate Order.

Section 3.07. No Reduced Rates or Free Service. All Customers receiving water and/or sewer service from the District shall be subject to the provisions of this Order and shall be charged the rates established in this Order, and no reduced rate or free service shall be furnished to any Customer; provided, however, this provision shall not prohibit the District from establishing reasonable classifications of customers for which rates differing from the rates stated herein may be adopted.

## ARTICLE IV
## SERVICE POLICY

Section 4.01. Security Deposits and Disconnection Deposits. Due to the billing and collection history of the District, security and disconnection deposits shall be required as follows:

A. Residential Security Deposits. Each Customer establishing a new account for single-family residential service shall be required to pay, prior to the District providing service, a security deposit of $125.00 where the Customer is the owner of the property ("homeowner") to be served and a deposit of $150.00 where the Customer is renting or leasing the property ("renter") to be served.

B. Commercial Security Deposits. Each Customer establishing a commercial account or multi-family residential account shall be required to make a security deposit equal to the estimated average monthly bill for such connection, as determined by the District based on typical requirements for similar uses.

C. Full Payment Required. Security deposits may be paid by either mailing or personally delivering the deposits to the offices of the District's Operator, provided, however, that mailed deposits must be in the form of certified checks or money orders, and provided further that mailed security deposits must be received by the District's Operator within ten (10) days after a new service request, or service to the user shall be disconnected.

D. Refund of Security Deposits. Following payment of the final bill and payment of all fees and charges, the balance of the security deposit, if any, shall be refunded by check mailed to the Customer. No interest shall be payable to the Customer on any security deposit.

E. Residential Disconnection Deposits. In the case of service disconnected for nonpayment of charges due pursuant to the terms set forth in Section 4.02 below, a deposit in the amount of $25.00 (the "disconnection deposit") for each disconnection up to a cumulative maximum limit (the "maximum limit") of $250.00 for homeowners and $300.00 for renters, including the security deposit set forth above, shall be charged to the Customer, and service will not be reconnected until the disconnection deposit, the delinquent charges, and the reconnection fee and replacement fee (if applicable) are paid. If the Customer, however, has no security deposit on file with the District at the time service is disconnected, the Customer shall be required to pay a security deposit of $125.00 if the customer is a homeowner or $150.00 if the Customer is a renter. If a Customer who has paid the additional disconnection deposit pays his or her monthly service charges in a timely manner for twelve (12) consecutive months, the District shall refund to the Customer upon the Customer's written request any portion of the deposit that is greater than the required security deposit defined in Section 4.01A above.

F. Commercial Disconnection Deposits. In the case of service disconnected for nonpayment of charges due by a Commercial Customer, a deposit in the amount of $50.00 ( the "commercial disconnection deposit") for each disconnection up to a cumulative maximum limit of $500.00, including the commercial security deposit set forth above, shall be charged to the Commercial Customer, and service will not be reconnected until the disconnection deposit, the delinquent charges, and the reconnection fee and replacement fee (if applicable) are paid. If a Commercial Customer that has paid the additional disconnection deposit pays its monthly service charges in a timely manner for twelve (12) consecutive months, the District shall refund to the Commercial Customer upon the Customer's written request any portion of the deposit that is greater than the required security deposit defined in Section 4.01B above.

Section 4.02. Billing Procedures. All accounts shall be billed in accordance with the following procedures:

A. Due Date and Delinquency. Payment shall be due on or before the due date shown on the bill. After such date, a late charge of ten percent (10%) will be assessed on the unpaid balance on the water and sewer bill. All accounts not paid in full by the due date shall be deemed delinquent and failure to make payment within thirty

(30) days thereafter may result in the termination of water and sewer service pursuant to Section 4.02C.

B. Delinquent Balance Greater Than Deposit. If at any time a Customer's account becomes delinquent for more than thirty (30) days and the delinquent balance is greater than the Customer's Security Deposit currently on file with the District, the Customer's water and sewer service may be terminated pursuant to the terms set forth below in Section 4.02C, and the disconnection deposit shall be paid as required in Section 4.01 above. Further, if notice of termination has previously been sent to a Customer pursuant to Section 4.02C and the delinquent balance remains or becomes greater than the Customer's Security Deposit currently on file with the District, the District may disconnect the Customer's service if the delinquency is not remedied or otherwise resolved within ten (10) days of the Customer receiving notice of termination from the District, and the disconnection deposit shall be paid as required in Section 4.01 above.

C. Disconnection; Notice and Appeal. Failure to pay all charges when due may be deemed by the District as a breach of contract for water and sewer service. The District may disconnect service if the delinquency is not remedied or otherwise resolved after sending written notice by United States first class mail to the Customer at the address of the connection and providing the Customer with an opportunity to contest, explain or correct the charges or services at a meeting of the Board of Directors of the District. The written notice shall inform the Customer of the amount of the delinquent payment, the date service will be disconnected if payment is not made, the date, time and place of the next scheduled meeting of the Board of Directors, and of the opportunity to contest, explain or correct the charges or services by presenting in person or in writing such matter to the Board of Directors at the next scheduled meeting as shown in the notice. The notice shall be deposited, postpaid, in a post office or official depository under the care and custody of the United States Postal Service within two (2) days after the charges become delinquent. A written statement by the District's Operator that the notice was so mailed shall be prima facie evidence of delivery of same. The date for disconnection specified in the notice shall be the day after the scheduled meeting of the Board of Directors, provided that the disconnection notice shall always be mailed at least seven (7) days before the date of the Board's meeting.

If service to a Customer is disconnected for any cause, there shall be charged a reconnection fee of $55.00 before service is again commenced to such Customer. If a delinquent payment is made prior to disconnection but after the District has given the notice set forth above, the Customer shall be charged a fee of $10.00 to cover the District's cost of giving the notice.

The District's Operator is hereby designated as the District's representative for purposes of making adjustments to service charges on account of clerical errors or other billing irregularities and for accepting partial payments on an account when such an arrangement is, in the Operator's judgment, in the best interests of the District. The Operator is not required to make adjustments or accept partial payments in any particular case. If the Operator does not make an adjustment or accept a partial payment requested by a Customer, service to the Customer shall not be terminated until the District's Board has considered the matter. The Operator shall notify the Customer making the request of the date, time, and location of the Board of Directors meeting at which the matter will be discussed. Such notice shall be given in writing and delivered in

the same manner as the disconnection notice set forth above in this section. Unless specifically authorized by the District's Board, a Customer cannot delay termination of service any more than two (2) times per calendar year by offering to make a partial payment.

D. Returned Checks. A $25.00 charge will be charged to the Customer's account for any check returned by the bank. Any amounts due on an account which have been paid with a check that has been returned by the bank must be paid in full by cash, cashier's check or money order, including all late charges and returned check charges, within five (5) days from the day the Operator hangs a notice on the Customer's door or otherwise notifies the Customer that the check has been returned by the bank. If the bank charges a fee for reprocessing a check, that fee will be charged to the Customer.

Section 4.03. Entitlement. Customers are not guaranteed a specific quantity or pressure of water or specific capacity in sewer facilities for any purpose whatsoever; furthermore, in no instance shall the District be liable for failure or refusal to furnish water or any particular amount or pressure of water or to provide capacity in sewer facilities.

Section 4.04. Unauthorized and Extraordinary Waste. The rates established herein are applicable for Domestic Waste as defined herein. Customers proposing to generate other types of waste will be assessed additional charges as established by the District.

Section 4.05. Damage to District Facilities.

A. Damage to Meter and Appurtenances. No person other than a duly authorized agent of the District shall tamper with or in any way interfere with a meter, meter box, service line or other water and/or sewer system appurtenance. The District reserves the right, immediately and without notice, to remove the meter or disconnect water service to any Customer whose meter has been tampered with and to assess repair charges to the Customer, plus a damage fee of $150.00.

B. Right to Repair. The District reserves the right to repair any damage to the District's System and appurtenances without prior notice and to assess against any Customer such penalties as are provided by law and such penalties provided for in this Rate Order in addition to those charges necessary to repair the portion of the System so damaged.

Section 4.06. Customer Service Agreement Administration Fee. Any time a Customer requests new service from the District or service to a Customer is terminated for any reason, even at the request of the Customer, the Customer must enter into a Customer Service Agreement with the District pursuant to the requirements of Section 3.07 of the Rules and Regulations. There will be a $10.00 fee to the Customer for administration of the Customer Service Agreement. A Customer will not be required to enter into more than one Customer Service Agreement for each address in the District.

## ARTICLE V
## ADOPTION OF AMENDED AND RESTATED RULES AND REGULATIONS GOVERNING WATER AND SANITARY SEWER FACILITIES, SERVICE LINES, AND CONNECTIONS

To preserve the sanitary condition of all water controlled by the District, to prevent waste or the unauthorized use of water controlled by the District, and to secure and maintain safe, sanitary and adequate plumbing installation, connections and appurtenances, the Board of the District hereby adopts the Amended and Restated Rules and Regulations Governing Water and Sanitary Sewer Facilities, Service Lines, and Connections attached hereto as Appendix "A" and incorporated herein for all purposes.

## ARTICLE VI
## WATER CONSERVATION, DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN

The Board of the District hereby adopts the Water Conservation, Drought Contingency, and Emergency Water Management Plan attached hereto as Appendix "B" and incorporated herein for all purposes.

## ARTICLE VII
## WASTEWATER CONTROL ORDER

The Board of the District hereby adopts the Wastewater Control Order, attached hereto as Appendix "C" and incorporated herein for all purposes.

## ARTICLE VIII
## ENFORCEMENT/CIVIL PENALTIES

Section 8.01. Enforcement.

A. Civil Penalties. The Board hereby imposes the following civil penalties for breach of any rule of the District: The violator shall pay the District twice the costs the District has sustained due to the violation up to $5,000. A penalty under this Section is in addition to any other penalty provided by the laws of this State and may be enforced by complaints filed in the appropriate court of jurisdiction in the county in which the District's principal office or meeting place is located. If the District prevails in any suit to enforce its rules, it may, in the same action, recover any reasonable fees for attorneys, expert witnesses, and other costs incurred by the District before the court. The amount of the attorneys' fees shall be fixed by the court.

B. Liability for Costs. Any person violating any of the provisions of this Order and/or the Rules and Regulations Governing Water and Sanitary Sewer Facilities, Service Lines, and Connections shall become liable to the District for any expense, loss or damage occasioned by the District by reason of such violation, and enforcement thereof shall be in accordance with Section 8.01(A) of this Order and Article X of the Rules and Regulations.

Section 8.02. Non-waiver. The failure on the part of the District to enforce any section, clause, sentence, or provision of this Order shall not constitute a waiver of the right of the District later to enforce any section, clause, sentence, or provision of this Order.

Section 8.03. Appeal. Any determination by the District's Operator or the District's engineer or any authorized agent of the District of any dispute regarding the terms and provisions of this Order may be appealed to the Board of the District, which shall conduct a hearing on the matter. The District's Operator and/or attorney shall provide the Customer with information regarding appeals and hearing procedures upon the Customer's request.

## ARTICLE IX
## SOLID WASTE

The District may contract with an independent contractor to provide for solid waste and trash collection within the District. If the Board of the District determines that it is in the best interest of the District to contract for solid waste and trash collection, the fee for such service, as established by contract, shall be included on the water and sewer service bill. Failure to pay the solid waste and trash collection service on or before the due date indicated on the water and sewer service bill shall result in the assessment of a 10% penalty on the unpaid balance of the bill for solid waste and trash collection as well as termination of service under the provisions of Article IV this Order.

## ARTICLE X
## MISCELLANEOUS

Section 10.01. Amendments. The Board of the District has and specifically reserves the right to change, alter or amend any rate or provision of this Order at any time.

Section 10.02. Severability. The provisions of this Order are severable, and if any provision or part of this Order or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Order and application of such provision or part of this Order shall not be affected thereby.

Section 10.03. Headings. The section and paragraph headings used herein are for reference only and are not to be construed as part of the text of the section or paragraph.

## ARTICLE XI
## REPEAL OF PREVIOUS ORDERS

All previous Orders adopted by the Board of Directors pertaining to the subject matter hereof are each hereby repealed in their entirety as of the effective date hereof.

## ARTICLE XII
## EFFECTIVE DATE

Section 12.01. The Service Rates and Fees listed in Article III of this Order shall be effective as of the first full billing cycle following 13 April 2016.

Section 12.02. The remainder of this Order shall be effective immediately.

The President or Vice President is authorized to execute and the Secretary or any Assistant Secretary is authorized to attest this Order on behalf of the Board and to do all things necessary and proper to carry out the purpose and intent hereof.

PASSED, ADOPTED, ORDERED and APPROVED as of the 13th day of April, 2016.

/s/ W. Jay Szinyei
President, Board of Directors

ATTEST:

/s/ Camille Sowells
Secretary, Board of Directors

(DISTRICT SEAL)

## LIST OF APPENDICES AND EXHIBITS


| | | |
|---|---|---|
| APPENDIX "A" | - | Amended and Restated Rules and Regulations Governing Water and Sanitary Sewer Facilities, Services Lines, and Connections |
| Exhibit 1 | - | Plumber's Certificate |
| Exhibit 2 | - | Service Inspection Certificate |
| Exhibit 3 | - | Backflow Prevention Assembly Test and Maintenance Report |
| Exhibit 4 | - | Customer Service Agreement |
| Exhibit 5 | - | Application for Service |
| Exhibit 6 | - | Sanitary Sewer Inspection Report |
| APPENDIX "B" | - | Drought Contingency and Emergency Water Management Plan |
| Exhibit 1 | - | Notice to Customers regarding Drought/Emergency Stage 1 |
| Exhibit 2 | - | Notice to Customers regarding Drought/Emergency Stage 2 |
| Exhibit 3 | - | Notice to Customers regarding Drought/Emergency Stage 3 |
| Exhibit 4 | - | Notice to Customer regarding Violation of Water Use Restrictions |
| Exhibit 5 | - | Notice to Customer regarding Violation of Water Use Restrictions (second notice) |
| Exhibit 6 | - | Notice to Customer regarding end of Drought/Emergency Condition |
| APPENDIX "C" | - | Wastewater Control Order |
| APPENDIX "D" | - | Polices and Procedures Related to Applications for Water and Sewer Service, Annexations, Utility Commitments and Other Requests |
| Exhibit 1 | - | Application for Service |

# APPENDIX A

## AMENDED AND RESTATED RULES AND REGULATIONS GOVERNING WATER AND SANITARY SEWER FACILITIES, SERVICE LINES, AND CONNECTIONS

THE STATE OF TEXAS §

COUNTY OF HARRIS §

CHIMNEY HILL MUNICIPAL UTILITY DISTRICT §

### ARTICLE I.
### PURPOSE

The following Amended and Restated Rules and Regulations Governing Water and Sanitary Sewer Facilities, Service Lines, and Connections (the "Rules and Regulations") shall govern the design, installation and inspection of all connections and taps made to the District's water distribution system and sanitary sewer collection system, the limitations of the flow of waste into the sanitary sewer system, protection of all facilities which are part of the District's waterworks and sanitary sewer system, and the enforcement of these Rules and Regulations.

### ARTICLE II.
### GENERAL

Section 2.01. Definitions.

1. Customer is any person, partnership, corporation, non-profit corporation, trust or other legal entity served by the District with water and/or sewer services to a residence or business establishment.

2. District is Chimney Hill Municipal Utility District of Harris County, Texas, a political subdivision of the State of Texas.

3. Engineer is the person, company or corporation which is under contract with the District to design the District's Water Supply System and Sanitary Sewer Collection System and performs any additional services as set forth in the contract with the District.

4. High Health Hazard is a cross-connection, potential cross-connection, or any other situation involving any substance that can cause death, illness, spread of disease, or that has a high possibility of causing such effects if introduced into the District's Water Supply System.

5. Operator is the person, company or corporation which is under contract with the District to operate the District's Water Supply System and Sanitary Sewer Collection System, collect amounts owed to the District for such services, report monthly to the District on the operations of the District's Water Supply System and Sanitary Sewer Collection System and perform any additional services as set forth in the contract with the District.

6. Rate Order shall mean the District's Order Adopting Consolidated Rate Order and Rules and Regulations; Establishing Policy Regulating Water Use During Emergencies; Establishing a Wastewater Control Order; and Providing Penalties for Violation Thereof which may be amended from time to time.

7. Sanitary Sewer Collection System constitutes the underground sanitary sewer lines owned or leased and operated by the District. This system is composed of all interconnecting laterals, mains, and trunk lines with manholes, clean-outs, stacks, tees, and wyes located within the publicly dedicated utility easements owned or leased and operated by the District. This system is maintained by the District.

8. Sanitary Sewer Service Line is any line from a residential dwelling or commercial unit which connects with the District's Sanitary Sewer Collection System, including any grease traps or other facilities constructed to prevent non-domestic waste from being introduced into the District's Sanitary Sewer Collection System. This service line is owned and maintained by the property owner of the residential dwelling or commercial unit.

9. Sewer Tap is the physical connection between the Sanitary Sewer Service Line and the District's Sanitary Sewer Collection System.

10. Sewer Tap Inspection is the inspection performed by the District's Operator to assure that the proper materials and connections to the Sanitary Sewer Collection System have been accomplished in accordance with these Rules and Regulations.

11. State Approved Plumbing Code is a set of rules governing plumbing practices which are at least as stringent and comprehensive as one of the following nationally recognized codes:

a. Southern Standard Plumbing Code.
b. Uniform Plumbing Code.
c. National Standard Plumbing Code.

12. Tap Fee is the fee paid to the District to obtain a water meter and sewer inspection for any dwelling. The amount of the Tap Fee shall be established in the District's Rate Order and may be modified or changed at any time.

13. Utility Easement is an interest in land, granted by dedication, to public utility entities, including the District, to install and maintain utilities across, over, or under private land together with the right to enter thereon with machinery, other vehicles and personnel necessary for the maintenance, repair or construction of said utilities.

14. Water Supply System is composed of all water lines, valves, valve boxes, flushing valves, blowoff valves, water meters, water meter service lines, and meter boxes located within public rights-of-way or easements owned or leased and operated by the District. This system is maintained by the District.

15. Water Meter is the recording device that registers the amounts of water consumed by each Customer of the District. This meter is owned and maintained by the District.

16. Water Service Line is any line from a residential dwelling or commercial unit, which connects to the District's Water Supply System. This service line is owned and maintained by the property owner of the residential dwelling or commercial structure.

17. Water Tap is the physical connection of any Water Service Line to the District's Water Supply System. Such connection will be made only by the District's Operator.

Section 2.02. Platting Requirement.

No connection shall be made to the District's Water Supply System or Sanitary Sewer Collection System unless the tract, parcel, or lot of land to be served by such connection:

1. was first connected to the District's Water Supply System or Sanitary Sewer Collection System prior to September 1, 1987, or

2. is part of an area covered by a development plat duly approved and recorded pursuant to Sections 212.0115 and 212.012 of the Local Government Code, as amended, or

3. is not required to be platted and written certification to that effect, in accordance with Section 212.0115(e), has been presented to the District's Operator.

Section 2.03. Approval of Plans and Specifications.

Prior to any non-residential connection to the District's Water Supply System or the Sanitary Sewer Collection System, the plans and specifications for the Sanitary Sewer Service Line and the Water Service Line must be submitted the District's Engineer for review and approval. Upon the Engineer's review and approval, the plans and specifications shall then be submitted to the District's Operator for review and approval. The cost of the review and approval of the plans and specification by the District's Engineer and Operator shall be paid by the Customer.

## ARTICLE III.
## WATER CONNECTIONS

Section 3.01. Water Tap Materials. Only the following types of pipe and fitting materials shall be approved for the installation of Water Taps, including residential Water Taps and commercial Water Taps:

1. Any meter approved by the City of Houston;

2. Brass curb stops, corp stops, and related fittings manufactured by Ford, Hays or Muller;

3. Polyethylene water service pipe, 3/4" to 2";

4. Cast iron or vinyl iron (C-900) water service pipe, larger than 2";

5. Water main pipe of the type originally installed;

6. Plastic meter box up to 2" meter;

7. Concrete meter box, where traffic use is specified; and

8. Concrete meter vault per City of Houston specifications for 3" and larger meter.

Section 3.02. Plumbing Material Prohibitions.

A. Prohibited Materials.

The use of the following materials are prohibited for the installation and repair of the District's Water Supply System and for the installation and repair of any private plumbing facilities:

1. any pipe, pipe fitting, plumbing fitting, or fixture the wetted surface of which contains a weighted average of more than 0.25% lead (as calculated under section 1417(d)(2) of the Safe Drinking Water Act [42 U.S.C. 300g-6], as amended by Public Law 111-380); and

2. any solder or flux which contains more than 0.2% lead.

This prohibition may be waived for lead joints that are necessary for repairs to cast iron pipe.

B. Certificate of Compliance.

No new connections to the District's Water Supply System shall be made unless a state licensed plumber first submits in writing to the District a Certificate of Compliance, as set forth in Exhibit "1" attached hereto, specifying that the new connection complies with the plumbing material prohibition contained in Section 3.02(A) hereof. The Certificate of Compliance shall be signed by the licensed plumber and must be submitted to the District's Operator prior to continuous service being supplied. The District shall not accept any Tap Fee that is not accompanied by a Certificate of Compliance.

Section 3.03. Installation.

1. An Application for Service, a copy of which is attached hereto as Exhibit "5," must be filed with the District's Operator. The Customer must pay to the District's Operator all Tap Fees, inspection fees and deposits, as described in the District's Rate Order.

2. All Water Taps to the District's Water Supply System shall be installed only by the District's Operator.

3. The District's Operator shall install Water Taps and set meters at a location on adjoining property lines, whenever possible, with the meter box being located in the easement adjacent to the property line and with two (2) meters per box, where appropriate.

4. The District's Operator shall be responsible for all repairs to the Water Taps.

5. After installation of the Water Tap, connection of the Water Service Line shall be made at the expense of the Customer. (Note: This line shall be tested for leaks since all water recorded through the meter will be charged to the Customer).

6. After connection to the District's Water Supply System, the Water Service Line should be thoroughly flushed as to prevent foreign matter from entering the household system.

Section 3.04. Customer Service Inspection Certifications.

A. A Customer Service Inspection Certification, as described in Exhibit "2" attached hereto, shall be completed prior to providing continuous water service to any new construction, on any existing service where the District has reason to believe that cross-connections or other unacceptable plumbing practices exist, and after any material improvement, correction, or addition to private plumbing facilities. Prior to the District initiating continuous service, a Customer shall provide a Customer Service Inspection Certification to the District. The Customer Service Inspection Certification may only be performed by those individuals described in Subsection B of this Section 3.04. For Customer Service Inspection Certifications performed by the District's Operator, the Customer must pay the District the Customer Service Inspection Fee prior to the Operator performing the inspection and certification. Copies of properly completed Customer Service Inspection Certifications shall be kept on file by the District's Operator and made available, upon request, for Texas Commission on Environmental Quality ("TCEQ") review. Inspection certifications shall be retained for a minimum of ten (10) years. Failure to provide a Customer Service Inspection Certification in accordance with this Section 3.04 shall constitute a violation of these Rules and Regulations and such violation shall be subject to the enforcement provisions set forth in Article X hereof.

B. Individuals with the following credentials shall be recognized as capable of conducting a Customer Service Inspection Certification:

1. Plumbing Inspectors and Water Supply Protection Specialists licensed by the Texas State Board of Plumbing Examiners; and

2. Certified Waterworks Operators and members of other water related professional groups who have completed a training course, passed an examination administered by the TCEQ or its designated agent, and hold an endorsement granted by the TCEQ or its designated agent.

C. Private plumbing facilities in violation of Article III hereof shall constitute an unacceptable plumbing practice and violation of these Rules and Regulations. If an unacceptable plumbing practice is discovered, the Customer shall eliminate the unacceptable plumbing practice within thirty (30) days from the date of discovery to prevent possible contamination of the District's Water Supply System. The existence of a serious threat to the integrity of the District's Water Supply System shall be considered sufficient grounds for immediate termination of water service. Service can be restored only when the source of potential contamination no longer exists, or when sufficient additional safeguards have been taken, and a Customer Service Inspection Certification confirming correction of unacceptable plumbing practices has been submitted to the District.

D. The Customer Service Inspection Certification shall certify that:

1. No direct connection between the District's Water Supply System and a potential source of contamination exists. Potential sources of contamination are isolated from the District's Water Supply System by an air gap or an appropriate backflow prevention assembly in accordance with state plumbing regulations. Additionally, all pressure relief valves and thermal expansion devices are in compliance with state plumbing regulations.

2. No cross-connection between the District's Water Supply System and a private water source exists. Where an actual air gap is not maintained between the District's Water Supply System and a private water supply, an approved reduced pressure-zone backflow prevention assembly is properly installed and a service agreement exists for annual inspection and testing by a recognized backflow prevention assembly tester.

3. No connection exists which would allow the return of water used for condensing, cooling or industrial processes back to the District's Water Supply System.

4. No pipe, pipe fitting, plumbing fitting, or fixture the wetted surface of which contains a weighted average of more than 0.25% lead (as calculated under section 1417(d)(2) of the Safe Drinking Water Act [42 U.S.C. 300g-6], as amended by Public Law 111-380) exists in private plumbing facilities installed on or after January 4, 2014.

5. No solder or flux which contains more than 0.2% lead exists in private plumbing facilities installed on or after July 1, 1988.

6. No new or replacement plumbing fixture is installed which is not in compliance with a State Approved Plumbing Code.

Section 3.05. Prohibited Connections.

A. No water connection from the District's Water Supply System shall be made to any establishment where an actual or potential contamination or system hazard exists without an air gap separation between the drinking water supply and the source of potential contamination. Where a containment air gap is impractical, individual "internal" air gaps or mechanical backflow prevention devices shall be required at the meter in the form of a backflow prevention device (in accordance with AWWA Standards C510 and C511 and AWWA Manual M14) on those establishments handling substances deleterious or hazardous to the public health.

B. No water connection from the District's Water Supply System shall be made to any condensing, cooling, or industrial process or any other system of nonpotable usage over which the District does not have sanitary control, unless the said connection is made in accordance with the requirements of paragraph (A) of this section. Water from such systems cannot be returned to the District's Water Supply System.

C. Overhead bulk water dispensing stations must be provided with an air gap between the filling outlet hose and the receiving tank to protect against back siphonage and cross-contamination.

Section 3.06. Backflow Prevention Assemblies.

A. Backflow prevention assemblies shall be installed on any connection which poses a High Health Hazard and any other connection which the District or the District's Operator reasonably believes poses a threat to the District's Water Supply System. The District's policy is that all commercial establishments will have backflow prevention assemblies installed by the District and inspected annually by the District. Water service provided for lawn sprinklers, swimming pool supply, reflection pool supply or other such applications must incorporate a back flow prevention assembly in accordance with a State Approved Plumbing Code for the particular designated use. No permanent water service will be provided or continued to any new connection in the District which requires a backflow prevention assembly, unless the Customer provides the District with a Backflow Prevention Assembly Test and Maintenance Report (the "Test Report"), as described in Exhibit "3" attached hereto. At the request of the customer, the District's Operator may, on behalf of the District, install the backflow prevention assembly and complete the Test Report at the Customer's cost.

B. Effective January 1, 1996, all backflow prevention assemblies shall be tested upon installation by a Recognized Backflow Prevention Assembly Tester and certified to be operating within specifications. The Test Report, as described in Exhibit "3" attached hereto, shall be retained for a minimum of three (3) years. The District shall provide these records to the TCEQ for inspection upon request. Backflow prevention assemblies which are installed to provide protection against High Health Hazards must also be tested and certified to be operating within specifications at least annually by a Recognized Backflow Prevention Device Tester.

C. Recognized Backflow Prevention Device Testers shall have completed a TCEQ approved course on cross-connection control and backflow prevention and passed an examination administered by the TCEQ or its designated agent. The accredited tester classification shall be broken down into two categories:

1. The "General Tester" is qualified to test and repair backflow prevention assemblies on any domestic, commercial, industrial or irrigation service.

2. The "Fireline Tester" is qualified to test and repair backflow prevention assemblies on firelines only. The State Fire Marshall's office requires that a person performing maintenance on firelines must be employed by an Approved Fireline Contractor.

D. Individuals who can show proof of completion of a course and passage of an exam based on the ABPA or ASSE National Exam, prior to the effective date of these regulations, may be recognized as accredited for the term of their current certification (not to exceed three (3) years).

E. Gauges used in the testing of backflow prevention assemblies shall be tested for accuracy annually in accordance with the University of Southern California's Foundation of Cross- Connection Control and Hydraulic Research and/or the American

Water Works Association Manual of Cross Connection Control (Manual M-14). Test gauge serial numbers must be included on the Test Report and Recognized Backflow Prevention Device Testers shall have gauges tested for accuracy.

F. A Test Report must be completed by the Recognized Backflow Prevention Assembly Tester for each assembly tested. The signed and dated original must be submitted to the District's Operator for record keeping purposes.

G. Repairs to backflow prevention assemblies shall be performed by authorized individuals as recognized by the Texas State Board of Plumbing Examiners, the TCEQ, Texas Irrigators Advisory Council, or the Texas Commission on Fire Protection-State Fire Marshall's Office, depending upon application and use.

H. The use of a backflow prevention device at the service connection shall be considered as additional backflow protection and shall not negate the use of backflow protection on internal hazards as outlined and enforced by a State Approved Plumbing Code.

Section 3.07. Customer Service Agreements.

A. The District is responsible for protecting its Water Supply System from contamination or pollution which can result from unacceptable plumbing practices. To this end, the District has adopted plumbing restrictions to provide protection to the District's Water Supply System. To notify Customers of the plumbing restrictions which are in place, each Customer shall be required to sign a Customer Service Agreement, as described in Exhibit "4" attached hereto, before the District will begin service. In addition, when service to an existing connection has been suspended or terminated, the District will not re-establish service unless it has a signed copy of a Customer Service Agreement.

The District will maintain a copy of the Customer Service Agreement as long as the Customer and/or the premises is connected to the District.

B. The Customer shall allow his/her property to be inspected for possible cross-connections and other unacceptable plumbing practices. These inspections shall be conducted by the District or its designated agent prior to initiating new water service; when there is reason to believe that cross-connections or other unacceptable plumbing practices exist; or after any major changes to the private plumbing facilities. Inspections shall be conducted during the District's normal business hours.

C. The District shall notify the Customer in writing of any cross-connection or other unacceptable plumbing practices which have been identified during the initial inspection or the periodic reinspection.

D. The Customer shall immediately correct any undesirable plumbing practice on his/her premises.

E. The Customer shall, at his expense, properly install, test, and maintain any backflow prevention device required by the District. Copies of all testing and maintenance records shall be provided to the District.

F. If a Customer fails to comply with the terms of the Customer Service Agreement, the District shall, at its option, either terminate service or properly install, test, and maintain an appropriate backflow prevention assembly at the service connection. Any expenses associated with the enforcement of the Customer Service Agreement shall be billed to the Customer.

## ARTICLE IV.
## SANITARY SEWER CONNECTIONS

Section 4.01. Sanitary Sewer Service Line Installation.

A. Only one Sanitary Sewer Service Line connection to the District's Sanitary Sewer Collection System is permitted for each residence or commercial unit. The Sanitary Sewer Service Line shall remain fully within the boundaries of the lot until the line reaches a utility easement or street right-of-way.

B. No opening in the District's Sanitary Sewer Collection System will be allowed to remain overnight or during rain.

C. All Sanitary Sewer Service Lines must be constructed to true alignment and grade. Warped and/or sagging lines will not be permitted. Sanitary Sewer Service Lines must have continuous contact with firm trench bottom throughout their entire run. Lines placed in such manner as to increase the likelihood of being displaced during backfill will be rejected.

D. All Sanitary Sewer Service Lines should be run from wyes or stacks directly to the houses without meanders or bends.

Section 4.02. Sanitary Sewer Service Line Materials. Only the following types of pipe and fitting materials are approved for constructing Sanitary Sewer Service Lines. Pipe and fittings in each Sanitary Sewer Service Line must consist of the following material or other material approved by the District's Engineer:

1. Vitrified clay pipe conforming to ASTM Specification C700 with joint coupling conforming to ASTM Specifications C425 or C594 and installed according to ASTM C12.

2. Cast iron soil pipe, standard weight, conforming to ASTM Specification A74 with rubber gasket joint coupling conforming to ASTM Specification C564.

3. Poly-vinyl-chloride PSM (PVC) pipe conforming to ASTM Specification D3034 or ASTM specification F789 (with UL listing)and installed according to ASTM D2321.

4. Ductile Iron Pipe conforming to ANSI A21.51 with rubber gasket joints ANSI A21.11 and installed according to manufacturer's recommendations.

5. Acrylonitrile-butadiene-styrene (ABS) pipe material conforming to ASTM Specification D2751.

Section 4.03. Size and Grade of Sanitary Sewer Service Lines.

A. Minimum Sizes for Sanitary Sewer Service Lines shall be as follows:

1. Residential- - - 4 inches in diameter; and

2. Commercial - - - 6 inches in diameter.

B. The minimum grades for Sanitary Sewer Service Lines shall be as follows:

1. 4 inch pipe - - - 14 inch drop per hundred feet (1.2%);

2. 6 inch pipe - - - 8 inch drop per hundred feet (0.7%); and

3. 8 inch pipe - - - 5 inch drop per hundred feet (0.4%).

C. The maximum grades for Sewer Service Lines shall be as follows:

1. 4 inch pipe - - - two and one-half feet drop per hundred feet (2.5%);

2. 6 inch pipe - - - one and one-half feet drop per hundred feet (1.5%); and

3. 8 inch pipe - - - one foot drop per hundred feet (1%).

Section 4.04. Connection of Building Sewer Outlet.

A. On all building waste outlets, the building tie-on connections shall be made directly to the stub-out from the building plumbing at the foundation.

B. Water-tight adapters of a type compatible with the materials being joined shall be used at the point of connection of a Sanitary Sewer Service Line to the building plumbing. No cement grout materials shall be permitted.

C. Unless an exception is permitted by the District's Operator, existing wye and stack connections must be utilized for connection of a Sanitary Sewer Service Line to the District's Sanitary Sewer Collection System.

D. Commercial users shall install a sampling well constructed to City of Houston standards and a grease trap with sampling port constructed to City of Houston standards when required by the District's Engineer and Operator. Refer to the Wastewater Control Order attached hereto as Appendix "C" for further regulations regarding grease traps and sampling ports.

Section 4.05. Fittings and Cleanouts.

A. No bends or turns at any point will be greater than forty-five degrees (45°).

B. Each horizontal Sanitary Sewer Service Line will be provided with a cleanout at its upper terminal; and each such run of piping which is more than ninety (90) feet in length will be provided with a cleanout for each ninety (90) feet or fraction thereof in the length of such piping.

C. Each cleanout will be installed so that it opens in a direction opposite to the flow of the waste and, except in the case of wye branch and end-of-the-line cleanouts, cleanouts will be installed vertically above the flow line of the pipe.

D. Cleanouts will be made with air-tight mechanical plug.

Section 4.06. Installation of Sewer Taps and Issuance of Permits.

A. Sanitary Sewer Service Lines must be at least 24 inches below (vertically) and at least 9 feet from (horizontally) any Water Service Line (far side or near side connection). If this is not possible, a cast iron casing over the Water Service Line must be installed by the Customer, which casing will be inspected by the Operator.

B. Excavation for Sewer Taps shall be water tamped in all areas within 5 feet (vertically or horizontally) of any existing sewer lines, sidewalks or driveways. Soil not suitable for water tamping (clay modules, organic material or silty soils) shall be removed and replaced with suitable backfill materials.

C. All stacks shall be installed in locations shown on the plans. Stacks shall be capped and the cap lightly cemented in place. Wyes will not be installed by the line contractor. Wye saddles will be paid for in the line contract, but will be delivered to the District's Operator. The District's Operator will furnish the Customer a saddle at the time of inspection.

D. An Application for Service (a copy of which is attached as Exhibit "5") must be filed with the District's Operator prior to construction of any Sanitary Sewer Service Line, and the Tap Fee and/or Sewer Tap Inspection fee as established in the District's most current Rate Order should accompany the application. (Application forms are available from the District's Operator.) Construction of any Sanitary Sewer Service Line must not begin until the design of the Sanitary Sewer Service Line is approved by the District's Engineer and construction is authorized by the District's Operator.

E. When the Sanitary Sewer Service Line is complete, and prior to backfilling the pipe trench, the Customer shall request an inspection of the Sanitary Sewer Service Line. Requests for inspections (or reinspections) shall be made to the District's Operator at least twenty-four (24) hours in advance of the inspection.

F. The Sewer Tap shall be made only under the supervision of the District's Operator by use of an adapter of a type compatible with materials being joined. The Sewer Tap shall be watertight. No cement grout materials are permitted.

G. Any damage to the District's facility shall be repaired promptly by the Customer under the direction of the District's Operator. Major damage will be repaired by the District's Operator at the Customer's expense.

H. Backfilling of a Sanitary Sewer Service Line trench must be accomplished within twenty-four (24) hours of inspection and approval. Backfill material shall be sand or loam free of large lumps or clods. No debris will be permitted in the trench or backfill.

I. During inspection of the Sanitary Sewer Service Line, the District's Operator will examine all District facilities, such as manholes, valves, flush valves, and inlets on and adjacent to the lot. The connection permit will not be granted until any damage to these facilities has been repaired.

J. The District's Operator will complete the Inspection Form (a copy of which is attached as Exhibit "6") and file it for record with the Application.

K. A connection permit will be issued after the Sewer Tap Inspection is performed and the District's Operator confirms that all requirements of these Rules and Regulations have been met.

L. Connection permits which are rejected for any deficiency shall be promptly corrected and a reinspection requested. A reinspection fee as set forth in the District's Rate Order shall be paid at the time the reinspection is requested.

## ARTICLE V.
## FEES AND CHARGES

The District's fees and charges shall be as established by its Rate Order.

## ARTICLE VI.
## EXCLUDED FLOW AND WASTE

A. No waste material which is not biologically degradable will be permitted to discharge into the District's Sanitary Sewer Collection System, including mud and debris accumulated during service line installation. The Customer should refer to the District's Rate Order and Wastewater Control Order for specific information concerning acceptable discharges into the District's Sanitary Sewer Collection System. The Customer is to be fully responsible for cleaning and jetting lines of any dirt or debris permitted to enter during service construction.

B. No surface runoff water will be permitted to be discharged into the District's Sanitary Sewer Collection System, including but not limited to, downspouts and yard or area drains.

C. Swimming pool and/or spa connections will not be made to the District's Sanitary Sewer Collection System unless specifically approved by the District in writing.

## ARTICLE VII.
## PRIVATE WELLS AND SEPTIC/AEROBIC SYSTEMS

The construction of water wells and/or the installation of septic tanks or aerobic systems is prohibited without prior written approval by the Board of Directors. Said approval, if granted by the Board of Directors, will state the purpose for the construction of a water well and the intended use of the water or the purpose for the construction of the septic tank or aerobic system and the intended use for said tank or system.

Any installation of a private well, septic tank, or aerobic system without prior written approval by the Board of Directors shall be considered to be a violation of the rules of the District, shall be subject to termination of services, and shall be subject to penalties pursuant to Article X of these Rules and Regulations.

## ARTICLE VIII.
## AVAILABILITY OF ACCESS/OBSTRUCTIONS

By application for connection to the District's Sanitary Sewer Collection System and/or Water Supply System, the Customer shall be deemed to be granting to the District and its representatives a right of ingress and egress to and from the meter or point of service for such installation, maintenance and repair as the District, in its judgment, may deem reasonably necessary. The Customer shall also be deemed to be granting to the District and its representatives a right of ingress and egress to the Customer's property, including the interior and exterior of the Customer's premises, for the purpose of performing the inspections and completing the Customer Service Inspection Certifications required by these Rules and Regulations. Taps and connections will not be made when, in the opinion of the District's Engineer or Operator, the work area is obstructed by building materials or other debris or the work area is not completed or finished to grade. When sidewalks, driveways or other improvements have been constructed prior to application for service, such application shall be construed and accepted as the Customer's waiver of a claim for any damages to such improvements resulting from the reasonable actions of the District's Operator in installation of the connection.

## ARTICLE IX.
## PROTECTION OF DISTRICT'S WATER SUPPLY SYSTEM AND SANITARY SEWER COLLECTION SYSTEM

A. Damage to the District's Water Supply System or the Sanitary Sewer Collection System by the District's Customers, including developers and builders' plumbers, will be repaired by the District at the Customer's expense.

B. After a water meter has been set or a fire hydrant installed, the Customer shall at all times keep the area in, around and upon such facilities and District easements and property under Customer's control free from rubbish or obstructions of any kind, including shrubbery. Failure to keep such facilities and District easements and property under Customer's control free from rubbish or obstructions of other kind, including shrubbery, shall result in disconnection of water service and/or the assessment of charges necessary to remove said obstructions. Customers are prohibited from introducing material into the District's Sanitary Sewer Collection System which could cause obstruction of said system. In the event that an inspection by the District's Engineer or Operator reveals foreseeable damage to the District's Sanitary Sewer Collection System resulting from a Customer's failure to prevent obstructions from entering said system, the District reserves the right to remove the obstruction immediately and without notice. Any costs incurred by the District for removal of an obstruction to the District's system, plus a District administration fee of 20% of said costs, shall be assessed to the Customer.

C. It shall be unlawful for any person, unless authorized in writing by the District's Operator, to tamper or interfere with, obstruct access to, or as a result of willful

action injure, deface, or destroy any facilities that are a part of the District's Water Supply System or Sanitary Sewer Collection System, including, with respect to the waterworks system, water plants, flushing valves, valve boxes, and water lines up to the meter box and including meters; provided, however, that duly authorized members of the local fire department shall have the right to use such flushing valves for fire protection purposes.

D. It shall be unlawful for any person to connect any building to the District's Water Supply System without a meter or to have a straight line connection to a building without being metered. It shall also be unlawful for any person, other than the District's Operator or Engineer, to draw water from the District's Water Supply System (except for the use of water for firefighting purposes) without being metered, including the unauthorized use of a flushing valve or unmetered water taps.

E. It shall be unlawful for any person to deposit, throw, drain, discharge, or otherwise cause to be injected into any sewer, manhole, catch basin, flush tank, or other facility that is a part of the District's Water Supply System or Sanitary Sewer Collection System any debris or foreign substance that would interfere with the proper and routine functioning thereof.

## ARTICLE X.
## ENFORCEMENT OF RULES AND REGULATIONS

Any and all of the following remedies may be employed by the District to abate and prevent any violation of the provisions of these Rules and Regulations:

1. Discontinuance of water service.

2. Disconnection and sealing of sanitary sewer connection.

3. The Board hereby imposes the following civil penalties for breach of any rule or regulation of the District: The violator shall pay the District twice the costs the District has sustained due to the violation up to $5,000. A penalty under this Section is in addition to any other penalty provided by the laws of this State and may be enforced by complaints filed in the appropriate court of jurisdiction in the county in which the District's principal office or meeting place is located. If the District prevails in any suit to enforce its rules, it may, in the same action, recover any reasonable fees for attorneys, expert witnesses, and other costs incurred by the District before the court. The amount of the attorneys' fees shall be fixed by the court.

4. A Customer found in violation of these Rules and Regulations shall be liable to the District for all expenses borne by the District including laboratory fees, legal fees, engineering fees and other costs incurred by the District in establishing the violation and resolving the cause of the violation.

5. A Customer found in violation of these Rules and Regulations who causes or contributes to a violation by the District's Sanitary Sewer Collection System of effluent parameters shall be liable to the District for all expenses borne by the District, including legal and engineering fees related to any lawsuit filed by federal, state, or local authorities regarding violations by the District of effluent parameters applicable to the District's Sanitary Sewer Collection System.

## ARTICLE XI.
## EFFECTIVE DATE

These Rules and Regulations shall become effective immediately.

**EXHIBIT "1"**
**TO APPENDIX A**

CERTIFICATE OF COMPLIANCE
WITH
PROHIBITION ON USE OF SPECIFIED MATERIALS IN CONNECTIONS TO
MUNICIPAL UTILITY DISTRICT WATER SYSTEM

I,_____, a duly licensed plumber in the State of Texas, hereby certify that the connection at _____ _____ (the "Connection") complies in full with the "Prohibition of Use of Specified Materials" provision contained in the Amended and Restated Rules and Regulations for Chimney Hill Municipal Utility District. I further certify that:

1. No direct connection between the District's Water Supply System and a potential source of contamination exists. Potential sources of contamination are isolated from the District Water Supply System by an air gap or an appropriate backflow prevention assembly in accordance with state plumbing regulations. Additionally, all pressure relief valves and thermal expansion devices are in compliance with state plumbing codes.

2. No cross connection between the District's Water Supply System and a private water system exists. Where an actual air gap is not maintained between the District's Water Supply System and a private water supply system, an approved reduced pressure-zone backflow prevention assembly is properly installed and a service agreement exists for annual inspection and testing by a certified backflow prevention device tester.

3. No connection exists which would allow the return of water used for condensing, cooling or industrial processes back to the District's Water Supply System.

4. No pipe, pipe fitting, plumbing fitting, or fixture the wetted surface of which contains a weighted average of more than 0.25% lead (as calculated under section 1417(d)(2) of the Safe Drinking Water Act [42 U.S.C. 300g-6], as amended by Public Law 111-380) exists in private plumbing facilities installed on or after January 4, 2014.

5. No solder or flux which contains more than 0.2% lead exists in private plumbing facilities installed on or after July 1, 1988.

6. No plumbing fixture is installed which is not in compliance with a State Approved Plumbing Code.

These determinations have been made under my direction and supervision. I am aware that there are significant penalties for false certification, including the possibility of fine.

_____
Signature

_____
Printed Name

_____
Company Name

Texas License No.:_____

_____
Date

**EXHIBIT "2"**
**TO APPENDIX A**

Service Inspection Certification

Name of District: Chimney Hill Municipal Utility District
District I.D. #: _____
Location of Service: _____

I, _____ (*name of Inspector*), upon inspection of the private plumbing facilities connected to the Water Supply System of _____, do hereby certify that, to the best of my knowledge:

| | | Compliance | Non-Compliance | Certificate of Compliance on File |
|---|---|---|---|---|
| | | **FOR DISTRICT USE ONLY** | | |
| (1) | No direct connection between the District's Water Supply System and a potential source of contamination exists. Potential sources of contamination are isolated from the District Water Supply System by an air gap or an appropriate backflow prevention assembly in accordance with state plumbing regulations. Additionally, all pressure relief valves and thermal expansion devices are in compliance with state plumbing codes. | □ | □ | □ |
| (2) | No cross connection between the District's Water Supply System and a private water system exists. Where an actual air gap is not maintained between the District's Water Supply System and a private water supply system, an approved reduced pressure-zone backflow prevention assembly is properly installed and a service agreement exists for annual inspection and testing by a certified backflow prevention device tester. | □ | □ | □ |
| (3) | No connection exists which would allow the return of water used for condensing, cooling or industrial processes back to the District's Water Supply System. | □ | □ | □ |
| (4) | No pipe, pipe fitting, plumbing fitting, or fixture the wetted surface of which contains a weighted average of more than 0.25% lead (as calculated under section 1417(d)(2) of the Safe Drinking Water Act [42 U.S.C. 300g-6], as amended by Public Law 111-380) exists in private plumbing facilities installed on or after January 4, 2014. | □ | □ | □ |
| (5) | No solder or flux which contains more than 0.2% lead exists in private plumbing facilities installed on or after July 1, 1988. | □ | □ | □ |
| (6) | No plumbing fixture is installed which is not in compliance with a State Approved Plumbing Code. | □ | □ | □ |

Water service shall not be provided or restored to the private plumbing facilities until the above conditions are determined to be in compliance.

I further certify that the following materials were used in the installation of the plumbing facilities:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Service Lines | Lead | □ | Copper | □ | PVC | □ | Other □ |
| Solder | Lead | □ | Lead Free | □ | Solvent Weld | □ | Other □ |

I recognize that this document shall become a permanent record of the Water Supply System of Chimney Hill Municipal Utility District and that I am legally responsible for the validity of the information I have provided.

NOTE: THIS SERVICE INSPECTION CERTIFICATION IS FURNISHED FOR THE SOLE PURPOSE OF INSPECTING THE PLUMBING FACILITIES AT THE AFORESAID LOCATION OF SERVICE FOR UNACCEPTABLE PLUMBING PRACTICES IN ACCORDANCE WITH SAID DISTRICT'S RULES AND REGULATIONS GOVERNING WATER AND SANITARY SEWER FACILITIES, SERVICE LINES, AND CONNECTIONS. NO REPRESENTATION OR WARRANTY IS INTENDED OR MADE AS TO THE ADEQUACY, QUALITY OR FITNESS OF THE PRIVATE PLUMBING FACILITIES.

Signature of Inspector: _____

Registration Number: _____

Title: _____

Type of Registration: _____

Date: _____

**EXHIBIT "3"**
**TO APPENDIX A**

Backflow Prevention Assembly Test and Maintenance Report

The following form must be completed for each assembly tested. A signed and dated original must be submitted to the District for record keeping purposes:

BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT

Name of District: Chimney Hill Municipal Utility District
PWS I.D. No.: _____
Location of Service: _____

The backflow prevention assembly detailed below has been tested and maintained as required by TCEQ regulations and is certified to be operating within acceptable parameters.

_____

TYPE OF ASSEMBLY

☐ Reduced Pressure Principle ☐ Pressure Vacuum Breaker
☐ Double Check Valve ☐ Atmosphere Vacuum Breaker
☐ Not Needed at this Address

Manufacturer _____ Size _____
Model Number _____ Located at _____
Serial Number _____

| | Reduced Pressure Principle Assembly | | | Pressure Vacuum Breaker | |
|---|---|---|---|---|---|
| | Double Check Valve Assembly | | | Air Inlet | Check Valve |
| | 1st Check | 2nd Check | Relief Valve | Opened at ____ psid<br>____ psid | |
| Initial Test | DC-Closed<br>Tight □<br>RP-____ psid<br><br>Leaked □ | Closed Tight □<br><br>Leaked □ | Opened at<br><br>___ psid | Did not<br>Open □ | Leaked □ |
| Repairs and Materials Used | | | | | |
| Test After Repair | DC-Closed<br>Tight □<br>RP____ psid | Closed Tight □ | Opened at<br>_____ psid | Opened at<br>_____psid | _____ psid |

The above is certified to be true.

Firm Name: _____ Certified Tester: _____
Firm Address: _____ Cert. Tester No.: _____
_____ Date: _____

**EXHIBIT "4"**
**TO APPENDIX "A"**

CUSTOMER SERVICE AGREEMENT

SECTION I. PURPOSE. Chimney Hill Municipal Utility District (the "District") is responsible for protecting its Water Supply System from contamination or pollution which could result from unacceptable plumbing practices. The purpose of this Service Agreement is to notify each customer of the plumbing restrictions which are in place to provide this protection. The District enforces these restrictions to ensure the public health and welfare. Each customer must sign this Customer Service Agreement before the District will begin service. In addition, when service to an existing connection has been suspended or terminated, the District will not re-establish service unless it has a signed copy of this Customer Service Agreement.

SECTION II. PLUMBING RESTRICTIONS. The following unacceptable plumbing practices are prohibited by State regulations:

A. No direct connection between the District's Water Supply System and a potential source of contamination is permitted. Potential sources of contamination shall be isolated from the public water system by an air gap or an appropriate backflow prevention device.

B. No cross-connection between the District's Water Supply System and a private water system is permitted. These potential threats to the District's Water Supply System shall be eliminated at the service connection by the installation of an air gap or a reduced pressure-zone backflow prevention device.

C. No connection which allows water to be returned to the District's Water Supply System is permitted.

D. No pipe, pipe fitting, plumbing fitting, or fixture the wetted surface of which contains a weighted average of more than 0.25% lead (as calculated under section 1417(d)(2) of the Safe Drinking Water Act [42 U.S.C. 300g-6], as amended by Public Law 111-380) may be used for the installation or repair of plumbing at any connection which provides water for human use.

E. No solder or flux which contains more than 0.2% lead can be used for the installation or repair of plumbing at any connection which provides water for human use.

SECTION III. SERVICE AGREEMENT. The following are the terms of this Customer Service Agreement between Chimney Hill Municipal Utility District (the "District") and _____ (the "Customer"):

A. The District will maintain a copy of this Customer Service Agreement as long as the Customer and/or the premises is connected to the District.

B. The Customer shall allow his/her property to be inspected for possible cross-connections and other unacceptable plumbing practices. These inspections shall be conducted by the District or its designated agent prior to initiating new water service; when there is reason to believe that cross-connections or other

unacceptable plumbing practices exist; or after any major changes to the private plumbing facilities. Inspections shall be conducted during the District's normal business hours.

C. The District shall notify the Customer in writing of any cross-connection or other unacceptable plumbing practices which have been identified during the initial inspection or the periodic reinspection.

D. The Customer shall immediately correct any unacceptable plumbing practice on his/her premises.

E. The Customer shall, at his expense, properly install, test, and maintain any backflow prevention device required by the District. Copies of all testing and maintenance records shall be provided to the District.

SECTION IV. ENFORCEMENT. If the Customer fails to comply with the terms of this Service Agreement, the District shall, at its option, either terminate service or properly install, test, and maintain an appropriate backflow prevention device at the service connection. Any expenses associated with the enforcement of this Service Agreement shall be billed to the Customer.

NOTE: THE PURPOSE OF THE CUSTOMER SERVICE AGREEMENT IS TO NOTIFY CUSTOMERS OF THE PLUMBING RESTRICTIONS OF THE DISTRICT ADOPTED TO PROTECT THE DISTRICT'S WATER SUPPLY SYSTEM. INSPECTIONS CONDUCTED BY THE DISTRICT'S OPERATOR IN ACCORDANCE WITH THIS SERVICE AGREEMENT ARE FOR THE SOLE PURPOSE OF DISCOVERING AND ELIMINATING UNACCEPTABLE PLUMBING PRACTICES. THE DISTRICT OR THE DISTRICT'S OPERATOR MAKES NO REPRESENTATION AS TO THE ADEQUACY, QUALITY, OR FITNESS OF THE CUSTOMER'S PRIVATE PLUMBING FACILITIES.

Customer's Signature: _____

Date: _____

Address: _____

**EXHIBIT "5"**
**TO APPENDIX A**

APPLICATION FOR SERVICE
(Please print or type)

Duplicate to
(address)

_____
(Subdivision and Section)

_____ _____ _____
(Name of Applicant) (Lot) (Block)

_____ _____
(Street Address) (Street Address)

_____ _____
(Phone) (City) (State) (Zip)

Installation to be performed by: _____
(Plumber or Sub-contractor) (Phone)

Type of pipe material to be used: PVC____, ABS____, VC____, CI____

Date:_____ Requested by:_____
(Signature)

_____

Applicant to draw sketch of house layout and proposed location of water and sewer service line:

_____

For District Use Only

Date Application Received: _____

Date Construction Authorized: _____

Connection Information: _____

WYE Location _____

Stack Location _____

Manhole Location _____

Date of Inspection 1st _____ 2nd _____ 3rd _____

Date Permit Granted _____

Approved by _____ District Representative

**EXHIBIT "6"**
**TO APPENDIX A**

INSPECTION FORM
SANITARY SEWER SERVICE

Lot _____ Block _____ Section _____
Street Address _____
Inspection Requested By: _____ Date _____
Date Tap to Be Made _____
Results of Inspection Made on _____ at _____ AM
PM

Pipe Material: Size _____ PVC (D3034) _____ ABS(D2751) _____
Tap to: Wye _____ Stack _____
Cleanout: House _____ and _____

INSTALLATION

| | Satisfactory | Unsatisfactory |
|---|---|---|
| Directness to Wye | _____ | _____ |
| Slope | _____ | _____ |
| Full Contact w/bedding | _____ | _____ |
| Connection w/Main | _____ | _____ |
| Condition of Other District Facilities on Lot | _____ | _____ |

Connection Permit is approved (not approved).
Water service to Lot is approved (not approved).
This service reinspected on _____. (See Attached new report).
Comments: _____
_____
_____

Copy to:
Applicant _____ By: _____
District Inspector
Manager _____ By: _____
Authorized Representative
of Applicant

# APPENDIX B

## DROUGHT CONTINGENCY AND EMERGENCY WATER MANAGEMENT PLAN

### 1. Criteria for Initiation and Termination of Drought Response Stages:

The Operator shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified "triggers" are reached.

The triggering criteria described below are based on known system capacity limits. The District has adopted measures for each stage of the Plan as warranted by the triggers. The stages will not necessarily be adopted in consecutive order.

In May of each year, the District will distribute water conservation materials to the residents of the District in an effort to encourage residents to conserve water during the summer months.

### 2. Drought Response Stages:

The Operator shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in this Plan, shall determine when a severe or emergency water shortage condition exists and shall implement the following notification procedures:

**Notification: Before any notification of the public occurs, the Operator shall notify the Board of Directors of the need to invoke mandatory water conservation procedures as specified herein; notwithstanding, the Board of Directors reserves the right to call a special meeting to review the specific situation and to take additional or other actions deemed necessary to correct the problem.**

### 3. Notification of the Public:

The Operator shall notify the public by means of:

- direct mail to each customer
- signs posted in public places, or
- other measures that might be appropriate.

Additional Notification:

The Operator shall notify directly, or cause to be notified directly, the following individuals and entities:

- Texas Commission on Environmental Quality (required when mandatory restrictions are imposed)
- Major water users
- Critical water users, i.e. hospitals.

Public Involvement:

The District has provided the opportunity for user input through the posting of agendas and holding of Board of Directors meetings in the District.

**4. Coordination with the Regional Water Planning Groups:**

A copy of the District's Drought Contingency Plan has been provided to Region H Water Planning Group to ensure consistency with the appropriate approved regional water plans.

**Stage 1 Triggers -- MODERATE Water Shortage Conditions**

Requirements for initiation:

Unless otherwise directed by the Board of Directors, customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 1 of this Plan when the following conditions occur:

Harris County has been in officially recognized drought conditions for the previous two months.

Requirements for termination:

Stage 1 of the Plan may be rescinded when the conditions listed as triggering events have ceased for a period of 5 consecutive days.

**Stage 1 Response -- MODERATE Water Shortage Conditions**

Goal: Achieve a 10 percent reduction in daily water demand.

Best Management Practices for Supply Management:

Any curtailment of water deliveries to or diversions by wholesale water customers will be a pro rata curtailment in accordance with Texas Water Code §11.039.

If possible, the District will utilize alternative water sources with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.)

Notify customers of the implementation of the water use restrictions by sending the letter attached as Exhibit 1.

Water Use Restrictions: The following water use restrictions shall apply to all persons, unless otherwise directed by the Board of Directors:

(a) Watering of lawns and irrigation of landscaped areas shall only be allowed between the hours of 6:00 a.m. and 8:00 a.m. and between 10:00 p.m. and 12:00 midnight.

**Stage 2 Triggers -- SEVERE Water Shortage Conditions**

Requirements for initiation:

Unless otherwise directed by the Board of Directors, customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 2 of this Plan when the following conditions occur:

The City of Houston limits the supply of water to the district for a time period that exceeds the District's ability to provide adequate water supply to its customers from current storage capacity.

Requirements for termination:

Stage 2 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 5 consecutive days.

**Stage 2 Response -- SEVERE Water Shortage Conditions**

Goal: Achieve a 30 percent reduction in daily water demand.

Best Management Practices for Supply Management:

Any curtailment of water deliveries to or diversions by wholesale water customers will be a pro rata curtailment in accordance with Texas Water Code §11.039.

If possible, the District will utilize alternative water sources with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.)

Discontinue flushing of water mains; discontinue irrigation of public landscaped areas.

Notify customers of the implementation of the water use restrictions by sending the letter attached as Exhibit 2.

Water Use Restrictions: Under threat of penalty for violation, the following water use restrictions shall apply to all persons, unless otherwise directed by the Board of Directors:

All requirements of Stage 1 shall remain in effect during Stage 2 except for the following changes:

(a) Watering of lawns and irrigation of landscaped areas shall only be allowed between the hours of 6:00 a.m. and 8:00 a.m. and between 10:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip

irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems is prohibited at all times while water use is restricted.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 8:00 a.m. and between 10:00 p.m. and 12:00 midnight.

(c) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.

(d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

(e) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare.

(f) All restaurants are discouraged from serving water to patrons except upon request of the patron.

(g) The following uses of water are defined as non-essential and are prohibited:

(1) wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
(2) use of water to wash down buildings or structures for purposes other than immediate fire protection;
(3) use of water for dust control;
(4) flushing gutters or permitting water to run or accumulate in any gutter or street; and
(5) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

(h) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

**Stage 3 Triggers -- EMERGENCY Water Shortage Conditions**

Requirements for initiation:

Unless otherwise directed by the Board of Directors, customers shall be required to comply with the requirements and restrictions for Stage 3 of this Plan when the Operator determines that a water supply emergency exists based on:

Disruption of water transmission from the City of Houston, major water line breaks, or pump or system failures which cause extreme loss of capability to provide water service;

or

Natural or man-made contamination of the water supply source(s).

Requirements for termination:

Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 5 consecutive days.

**Stage 3 Response -- EMERGENCY Water Shortage Conditions**

Goal: Restore normal water supply as soon as possible.

Best Management Practices for Supply Management:

Any curtailment of water deliveries to or diversions by wholesale water customers will be a pro rata curtailment in accordance with Texas Water Code §11.039.

If possible, the District will utilize alternative water sources with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.)

Discontinue flushing of water mains; discontinue irrigation of public landscaped areas.

Notify customers of the implementation of the water use restrictions by sending the letter attached as Exhibit 3.

Water Use Restrictions: Under threat of penalty for violation, the following water use restrictions shall apply to all persons, unless otherwise directed by the Board of Directors:

All requirements of Stage 1 and Stage 2 shall remain in effect during Stage 3 except for the following changes:

(a) Watering of lawns and irrigation of landscaped areas are absolutely prohibited.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

**5. Enforcement:**

(a) No person shall knowingly or intentionally allow the use of water from the District for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the Operator in accordance with provisions of this Plan.

(b) First Violation. Any person or entity who violates this Plan shall receive written notification of such violation, which notice shall set forth (i) the date of the violation, (ii) the nature of the violation, (iii) the Drought Stage measures then in

effect, and (iv) the penalties applicable for any further violations of this Plan; provided, however, that if such person or entity has ever previously violated this Plan, the penalties set forth below may, in the discretion of the Board, be imposed. The letter attached as Exhibit 4 may be used for the written notification of a first violation of the provisions of the Plan.

(c) Subsequent Violations.

(1) Disconnection for Noncompliance. If any person or entity violates any provision of this Plan more than one time (which violation shall constitute an unauthorized use of District services and/or facilities), then in addition to any other remedies, penalties, sanctions, and enforcement procedures provided for herein, the District shall have the right to terminate water service to such person or entity after notice and any other procedural requirements in the District's Consolidated Rate Order are satisfied. Water services will not be restored until noncompliance is discontinued, a reconnect fee of $50 is received by the District, and all penalties are paid as defined below. The letter attached as Exhibit 5 may be used to notify the person or entity of the termination of services.

(2) Monetary Penalties for Noncompliance. If any person or entity violates any provision of this Plan more than one time (which violation shall constitute an unauthorized use of District services and/or facilities), then, in addition to disconnection as provided in this Section, the Board of the District, after providing required notice, shall impose a penalty as follows:

| | |
|---|---|
| 2nd violation | – $ 50 |
| 3rd violation | – $200 |
| 4th violation | – $300 |
| subsequent violations | -- $500 each |

Each day that a breach of any provision of this Plan continues shall be considered a separate violation. This penalty shall be in addition to any other legal rights and remedies of the District as may be allowed by law. The letter attached as Exhibit 5 hereto should be used to provide the required notice.

(d) Remedies Cumulative. All rights, remedies, sanctions, penalties, and enforcement procedures provided for in this Plan are cumulative. In addition, the District shall have and may exercise and enforce any and all rights and remedies provided by law or in equity.

6. Wholesale Water Contracts:

All future wholesale water contracts entered into between the District and a wholesale water user, including contract extensions, will contain a provision requiring the wholesale water user to adopt a Drought Contingency Plan in accordance with Texas Water Code §11.039.

## 7. Variances:

The Operator may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

(a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.

(b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the District within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the Board of Directors of the District and shall include the following:

(a) Name and address of the petitioner(s).
(b) Purpose of water use.
(c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
(d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
(e) Description of the relief requested.
(f) Period of time for which the variance is sought.
(g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
(h) Other pertinent information.

Variances granted by the District shall include the following provisions, unless waived or modified by the Board of Directors of the District:

(a) Variances granted shall include a timetable for compliance.
(b) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance unless proven that it was necessary due to serious health reasons.

## 8. End of Drought Contingency Water Use Restrictions:

When the District is able to return to normal water use, the District shall send out the letter attached as Exhibit 5, or otherwise notify the customers of the District of the end of all water use restrictions.

EXHIBIT 1
TO APPENDIX B

**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**
**OF**
**HARRIS COUNTY, TEXAS**
(Drought/Emergency Stage 1)

_____
(Date)

Dear Customer:

As a result of _____, Chimney Hill Municipal Utility District is suffering moderate inability to provide water at the customary levels or pressure.

This condition should be resolved within the next _____, and/or a Board of Directors meeting will be held _____ at _____ __.m. at _____ to explain the situation and possible solutions.

To ensure that an adequate supply of water is available for drinking and bathing, you are hereby notified that Stage 1 of the Drought Contingency and Emergency Water Management Plan (the "Plan") is now in effect. The Board of Directors is aware of the inconvenience of these moderate restrictions, but it is imperative that the water supply not only be available for drinking and bathing but also for fire fighters in the event of a house fire. The following restrictions are now in effect:

(a) Watering of lawns and irrigation of landscaped areas shall only be allowed between the hours of 6:00 a.m. and 8:00 a.m. and between 10:00 p.m. and 12:00 midnight.

Failure to comply with the Water Use Restrictions is deemed a violation of the Policy Regulating Water Use During an Emergency Water Period and may result in the termination of water and sewer service to your property. Water and sewer service will not be restored until noncompliance is discontinued, a reconnect fee of $50 is paid, and payment of a $50 penalty is received by the District.

The Board of Directors appreciates your cooperation and perseverance during this Drought Stage. Once the Drought Stage ends, we will notify you and you may then return to normal usage. If conditions should worsen, you will be notified of more stringent restrictions, to ensure the availability of water in your community.

Very truly yours,

_____
Board of Directors

EXHIBIT 2
TO APPENDIX B

**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**
**OF**
**HARRIS COUNTY, TEXAS**
(Drought/Emergency Stage 2)

_____
(Date)

Dear Customer:

As a result of _____, Chimney Hill Municipal Utility District is suffering severe inability to provide water at the customary levels or pressure.

This condition should be resolved within the next _____, and/or a Board of Directors meeting will be held _____ at _____ __.m. at _____ to explain the situation and possible solutions.

To ensure that an adequate supply of water is available for drinking and bathing, you are hereby notified that Stage 2 of the Drought Contingency and Emergency Water Management Plan (the "Plan") is now in effect. The Board of Directors is aware of the inconvenience of these severe restrictions, but it is imperative that the water supply not only be available for drinking and bathing but also for fire fighters in the event of a house fire. The following restrictions are now in effect:

(b) Watering of lawns and irrigation of landscaped areas shall only be allowed between the hours of 6:00 a.m. and 8:00 a.m. and between 10:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems is prohibited at all times while water use is restricted.

(c) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 8:00 a.m. and between 10:00 p.m. and 12:00 midnight.

(d) The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools is prohibited.

(e) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

(f) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare.

(g) All restaurants are discouraged from serving water to patrons except upon request of the patron.

(h) The following uses of water are defined as non-essential and are prohibited:

(1) wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
(2) use of water to wash down buildings or structures for purposes other than immediate fire protection;
(3) use of water for dust control;
(4) flushing gutters or permitting water to run or accumulate in any gutter or street; and
(5) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

(i) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Failure to comply with the Water Use Restrictions is deemed a violation of the Policy Regulating Water Use During an Emergency Water Period and may result in the termination of water and sewer service to your property. Water and sewer service will not be restored until noncompliance is discontinued, a reconnect fee of $50 is paid, and payment of a $50 penalty is received by the District.

The Board of Directors appreciates your cooperation and perseverance during this Drought Stage. Once the Drought Stage ends, we will notify you and you may then return to normal usage. If conditions should worsen, you will be notified of more stringent restrictions, to ensure the availability of water in your community.

Very truly yours,

_____
Board of Directors

EXHIBIT 3
TO APPENDIX B

**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**
**OF**
**HARRIS COUNTY, TEXAS**
(Drought/Emergency Stage 3)

_____
(Date)

Dear Customer:

As a result of _____, Chimney Hill Municipal Utility District is suffering extreme inability to provide water at the customary levels or pressure.

This condition should be resolved within the next _____, and/or a Board of Directors meeting will be held _____ at _____ __.m. at _____ to explain the situation and possible solutions.

To ensure that an adequate supply of water is available for drinking and bathing, you are hereby notified that Stage 3 of the Drought Contingency and Emergency Water Management Plan (the "Plan") is now in effect. The Board of Directors is aware of the inconvenience of these severe restrictions, but it is imperative that the water supply not only be available for drinking and bathing but also for fire fighters in the event of a house fire. The following restrictions are now in effect:

(a) Watering of lawns and irrigation of landscaped areas is prohibited.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

(c) The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools is prohibited.

(d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a re-circulation system.

(e) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare.

(f) All restaurants are prohibited from serving water to patrons except upon request of the patron.

(g) The following uses of water are defined as non-essential and are prohibited:

1. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
2. use of water to wash down buildings or structures for purposes other than immediate fire protection;
3. use of water for dust control;
4. flushing gutters or permitting water to run or accumulate in any gutter or street; and
5. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

(h) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Failure to comply with the Water Use Restrictions is deemed a violation of the Policy Regulating Water Use During an Emergency Water Period and may result in the termination of water and sewer service to your property. Water and sewer service will not be restored until noncompliance is discontinued, a reconnect fee of $50 is paid, and payment of a $50 penalty is received by the District.

The Board of Directors appreciates your cooperation and perseverance during this Drought Stage. Once the Drought Stage ends, we will notify you and you may then return to normal usage. If conditions should worsen, you will be notified of more stringent restrictions, to ensure the availability of water in your community.

Very truly yours,

_____

Board of Directors

EXHIBIT 4
TO APPENDIX B
**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**
**OF**
**HARRIS COUNTY, TEXAS**

**CITATION**

_____
(Date)

Dear Customer:

You are hereby notified that you are violating the Water Use Restrictions of Chimney Hill Municipal Utility District.

You have been observed:

_____
_____

Attached is a copy of the letter we sent you regarding the Drought/Emergency Stage ___ and the restrictions imposed.

Unless the use of water in a prohibited manner is ceased immediately, water and sewer service to your property will be terminated, and service will be only restored upon receipt by the District of payment of a $50 reconnect fee and a $50 penalty.

Very truly yours,

_____
Board of Directors

EXHIBIT 5
TO APPENDIX B

**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**
**OF**
**HARRIS COUNTY, TEXAS**

**CITATION**

_____
(Date)

Dear Customer:

On _____, you were notified that you were violating the Water Use Restrictions of Chimney Hill Municipal Utility District . This second violation has resulted in the termination of water and sewer service to your property. Service will be restored upon discontinuation of the prohibited use and upon payment to the District of a $50 reconnect fee and a $50 penalty. In addition, you will have to sign a copy of the water use restrictions now in effect. To have service restored you should contact the operator of Chimney Hill Municipal Utility District at _____.

In addition, if you fail to take the steps listed above, the District will consider the imposition of further Monetary Penalties for Noncompliance. In addition to disconnection, the District shall impose monetary penalties as follows: (1) the penalty for a second violation will be $50; (2) the penalty for a third violation will be $200; (3) the penalty for a fourth violation will be $300; and (4) the penalty for each subsequent violation will be $500. Each day that a breach of any provision of this Plan continues shall be considered a separate violation. This penalty shall be in addition to any other legal rights and remedies of the District as may be allowed by law, including termination of service which will result in a $50 reconnect fee. We urge you to comply with the provisions of the District's Water Conservation, Drought Contingency, and Emergency Water Management Plan.

Very truly yours,

_____
Board of Directors

EXHIBIT 6
TO APPENDIX B

**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**
**OF**
**HARRIS COUNTY, TEXAS**

_____
(Date)

Dear Customer:

The Drought/Emergency Condition has ended. You may return to normal water usage. The Board of Directors of Chimney Hill Municipal Utility District appreciates your cooperation and perseverance during this period and would appreciate your continued attention to water use. Continued water conservation practices will help ensure water availability in the future. Thank you for your efforts.

Very truly yours,

_____
Board of Directors

## APPENDIX C

## WASTEWATER CONTROL ORDER

| | |
|---|---|
| THE STATE OF TEXAS | § |
| | § |
| COUNTY OF HARRIS | § |
| | § |
| CHIMNEY HILL MUNICIPAL UTILITY DISTRICT | § |

I.
PURPOSE

This Wastewater Control Order set forth below is to govern all connections made to the sanitary sewer collection system within the District.

II.
DEFINITIONS

Definitions from the District's Order Adopting Consolidated Rate Order and Rules and Regulations; Establishing Policy Regulating Water Use During Emergencies; Establishing a Wastewater Control Order; and Providing Penalties for Violation Thereof are incorporated herein by reference. Unless the context requires otherwise, the terms and phrases used herein shall have meanings as follows:

1. The term "amenable to treatment" shall mean susceptible to reduction in concentration by Treatment routinely provided in the District's wastewater treatment plant, to a level which is in compliance with federal and state effluent limitations for discharges into the waters of the State of Texas.

2. The term "B.O.D." (Biochemical Oxygen Demand) means the quantity of oxygen by weight expressed in milligrams per liter ("mg/l") utilized in the biochemical oxidation of organic matter under standard laboratory conditions for five days at a temperature of twenty (20) degrees centigrade as determined by the procedures specified in the latest edition of Standard Methods, or such other manual of operations as the District may adopt from time to time in accordance with the latest rules of the Texas Commission on Environmental Quality (the "TCEQ").

3. The term "Control Manhole" or "Control Point" means a manhole, sample well or other facility which provides access to a Customer's Sanitary Sewer Collection System and is located at a point before the Waste discharges in the Waste Disposal System.

4. The term "C.O.D." (Chemical Oxygen Demand) means the measure of the oxygen-consuming capacity of inorganic and organic matter present in water or waste, expressed in milligrams per liter as the amount of oxygen consumed from a chemical oxidant as determined by Standard Methods, or such other manual of operations as the District may adopt from time to time in accordance with the latest rules of the TCEQ.

5. The term "Commercial Waste" means the liquid and water-carried waste resulting from any process of industry, manufacturing, trade, business, or commercial enterprise, or any other process resulting in the discharge of waste other than normal domestic wastewater, including any mixture of industrial waste with water or normal domestic wastewater, and such other waste as the District deems appropriate.

6. The term "Commercial Waste Charge" means the charge made to persons who discharge or are responsible for the discharge of non-residential waste into the Waste Disposal System which discharge is amenable to treatment but which exceeds the concentration levels of normal domestic wastewater.

7. The term "Customer" means any person who is served by the wastewater collection and treatment system of the District (the "Waste Disposal System").

8. The term "Customer's Sanitary Sewer Collection System" means the sanitary sewer system(s) now owned or operated or to be constructed or acquired by Customers of the District, including sanitary sewers (but excluding storm sewers), manholes, intercepting sewers, pumping works, and all other plants, works, and equipment for the collection and transportation of waste to the District's Waste Disposal System.

9. The term "daily composite" means the composite of all samples of a Customer's wastewater that may be taken in any 24-hour period selected by the District. A daily composite shall be prepared from not less than three (3) grab samples collected no closer together than one (1) hour per sample.

10. The term "discharge" includes the terms deposit, conduct, drain, emit, throw, run, seep, or otherwise release or dispose of, or to allow, permit, or suffer any of such acts or omissions.

11. The term "grab sample" means an individual sample collected in less than 15 minutes.

12. The term "grease" means fats, waxes, oils, and other similar volatile material and waste which are extracted by procedures specified in the latest edition of Standard Methods, or such other manuals as the District may adopt from time to time in accordance with the latest rules of the TCEQ.

13. The term "infiltration water" means water which leaks into the District's Waste Disposal System or its customers' sanitary sewer collection systems.

14. The term "interference" means the inhibition or disruption of the Waste Disposal System treatment process or operations which causes or contributes to causing a violation of the District's NPDES Permit or its permit issued by the Texas Commission on Environmental Quality.

15. The term "mg/l" means milligrams per liter.

16. The term "monthly average" means, at the option of the District, either (i) the arithmetic average of all grab samples taken during a calendar month or (ii) the arithmetic average of all daily composite samples taken during a calendar month.

17. The term "normal domestic wastewater" means waste, excluding industrial waste, discharged by a person into the Waste Disposal System or into a Customer's sanitary sewer collection system in which the average concentration of total suspended solids is not more than 200 mg/l, B.O.D. is not more than 200 mg/l, and NH3-N is not more than 35 mg/l.

18. The term "overload" means the imposition of organic or hydraulic loading on the Waste Disposal System in excess of either its designated hydraulic capacity, its installed rated capacity, or its organic loading capacity.

19. The term "person" means any individual, public or private corporation, district, authority, political subdivision, or other agency or entity of the State of Texas or of the United States of America; any incorporated city, town, or village, whether operating under general law or under its home rule charter; and any copartnership, association, firm, trust, estate, or any other entity whatsoever.

20. The term "pH" means the common logarithm of the reciprocal of the hydrogen ion concentration expressed in molecules per liter of solution.

21. The term "Pollutant" means any dredged spoil, solid waste, incinerator residue, waste, garbage, sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

22. The term "pretreatment" means the reduction of the amount of Pollutants, the elimination of Pollutants, or the alteration of the nature of the Pollutant properties in the wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such Pollutants into the Waste Disposal System.

23. The term "properly shredded garbage" means solid waste from the preparation, cooking, and dispensing of food and from the handling, storage, and sale of produce that has been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sanitary sewers, with no particle greater than one-half (1/2) inch in any dimension.

24. The term "slug" means any discharge of water which in the concentration of any given constituent or in the quantity of the flow, exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration or flow during normal operation.

25. The term "Standard Methods" means the examination and analytical procedures set forth in the latest edition of "Standard Methods for the Examination of Water and Wastewater" as prepared, approved, and published jointly by the American Public Health Association, the America Water Works Association, and the Water Pollution Control Federation.

26. The term "storm sewer" means sewers which carry storm and surface waters and drainage and into which waste is not intentionally discharged.

27. The term "suspended solids" means those solids that either float on the surface or are in suspension in waste or other liquids, expressed in terms of milligrams per liter.

28. The term "trap" means a device designed to skim, settle, or otherwise remove grease, oil, sand, flammable wastes, or other substances which may be harmful to either the Waste Disposal System or its treatment processes.

29. The term "waste" means normal domestic wastewater and commercial waste collected by a public sanitary sewer collection system, together with such infiltration water as may be present.

30. The term "Waste Disposal System" means all or any part of any disposal system or disposal facilities constructed or acquired by the District for receiving, transporting, treating, and disposing of waste collected by the sanitary sewer collection systems of the District's customers, together with such extensions, enlargements, and modifications as may be required in the future or as may be necessary to comply with any regulatory requirements.

31. The term "wastewater service charge" means the charge to all users of the District's Waste Disposal System whose wastes do not exceed the concentrations established herein as representative of normal domestic wastewater.

## III.
## PROHIBITED DISCHARGE

### A. DISCHARGES INJURING OR INTERFERING WITH WASTE DISPOSAL SYSTEM

All waste discharged into the Waste Disposal System shall conform to the requirements hereof and shall consist only of waste amenable to biological treatment or other processes employed by the District from time to time. No person may discharge into the Waste Disposal System any waste which by itself or by interaction with any other waste may (i) injure or interfere with the process or physical properties or facilities of the Waste Disposal System, (ii) constitute a hazard to humans or animals, and (iii) create a hazard in the receiving waters of the effluent of the Waste Disposal System. No person shall discharge any of the following substances into the Waste Disposal System:

1. Any inflows or infiltration, including but not limited to, storm water, groundwater, roof runoff, sub-surface drainage, noncontact cooling water, or from sources such as downspouts, yard drains, pool drains, yard fountains or ponds, or lawn sprinklers.

2. Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances, to cause fire or explosion or be injurious in any other way to the Waste Disposal System or to the operation of the Waste Disposal System. At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than five percent (5%) nor any single reading over ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides and any other substances in concentrations which the District, the State or EPA has identified or hereafter identifies as a fire hazard or a hazard to the system.

3. Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the Waste Disposal System including, but not limited to, garbage (other than properly shredded garbage) containing particles greater than one-half inch (1/2") in any dimension, animal guts or tissues, paunch manure, bones, hair hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, lettuce, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud, glass grindings or polishing wastes.

4. Any wastewater having a pH less than 6.0 or higher than 9.0, as determined from the average of at least four (4) grab samples taken at least one hour apart and measured instantaneously, or having a pH lower than 5.0 or higher than 10.0 for any single grab sample, or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the Waste Disposal System.

5. Any wastewater containing toxic Pollutants in sufficient quantity, either singly or by interaction with other Pollutants, to injure or interfere with any wastewater treatment process, which constitute a hazard to humans or animals, which create a toxic effect in the receiving waters of the wastewater facilities, or which exceed the limitation set forth in a National Categorical Pretreatment Standard.

6. Any wastewater having a temperature which will inhibit biological activity in the wastewater treatment plant or result in the interference with the operations of such facility, but in no case wastewater with a temperature at the designated control point or sample well which exceeds 65C (150F) or which causes the temperature of waste at the entrance to the wastewater treatment plant to exceed 40C (104F). In addition, no wastewater with such a temperature that will cause the temperature of wastewater at the entrance to the wastewater treatment plant to rise more than 10 F per hour.

7. Any Pollutants, including oxygen demanding Pollutants released at a flow rate and/or Pollutant concentration which will cause interference to the Waste Disposal System. No slug discharges are allowed.

8. A volume of flow which will cause the influent flow to the Waste Disposal System to exceed 1.5 times the average dry weather flow rate for a period longer than one hour. The design and installation of surge basins shall be subject to the review and approval of the District and to the requirements of all applicable laws.

9. Waste containing B.O.D. or suspended solids in excess of 200 mg/l, or ammonia in excess of 35 mg/l, based on a grab sample, unless a variance is first obtained from the District. B.O.D. or suspended solids in monthly average concentrations above 200 mg/l, and ammonia in a monthly concentration above 35 mg/l, shall be subject to payment of Commercial Waste Charges pursuant to Section VIII herein.

Discharges prohibited by the foregoing parameters include, but are not limited to, slugs and materials which exert or cause: excessive discoloration or concentrations of suspended solids, B.O.D., C.O.D., or chlorine demands in excess of the ability of the Waste Disposal

System to treat adequately and dispose of such waste in compliance with applicable regulatory requirements.

B. CHEMICAL DISCHARGES

The following chemicals shall not be admissible into the Waste Disposal System:

1. Cyanide or cyanogen compounds capable of liberating hydrocyanic gas upon acidification when present in concentrations in excess of 0.5 mg/l by weight as cyanide (CN);

2. Fluorides other than those contained in the local public water supply for the area which is the source of the discharge;

3. Gasoline, cleaning solvents, benzene, naphtha, fuel oil, or other flammable or explosive liquids, solids, or gases;

4. Substances causing C.O.D. in excess of 500 mg/l for any daily composite sample or 1,000 mg/l for any grab sample;

5. Acids or alkalis having pH values lower than 6.0 or higher than 9.0, iron pickling wastes, or concentrated plating solutions whether neutralized or not;

6. Grease, whether emulsified or not, containing substances which may solidify or become viscous at temperatures between 32 degrees and 150 degrees Fahrenheit (0 degrees and 65 degrees Centigrade) or which exceeds on analysis an average of 100 mg/l of soluble matter;

7. Dissolved sulfides whose concentrations exceed 30 mg/l;

8. Radioactive materials or isotopes of such half-life or concentrations which will permit a transient concentration higher than the maximum allowable as specified by the governing standards of all local, State and federal regulatory authorities;

9. Any other corrosive, explosive, malodorous, or objectionable chemicals in liquid, solid, or gaseous form.

C. HEAVY METALS AND TOXIC MATERIALS

The following metals and toxic materials shall not be admissible into the District's Waste Disposal System:

1. Objectionable or toxic substances exerting an excessive chlorine requirement to such a degree that any such material received in the composite waste at the wastewater treatment plant exceeds the limits established from time to time by the District for such materials.

2. Obnoxious, toxic, or poisonous solids, liquids, or gases in quantities sufficient to violate the provisions of this Part III hereof.

3. Any substance having corrosive properties capable of causing damage or hazard to structures, equipment, or personnel operating the Waste Disposal System.

4. All waste or other substances containing phenols, hydrogen sulfide, or other taste or odor producing substances exceeding the concentration limits established from time to time by the District or which, after treatment of the composite waste, exceeds applicable regulatory requirements.

5. Antimony, beryllium, bismuth, boron, cobalt, molybdenum, tin, uranyl ion, uranium, rhenium, strontium, tellurium, and such other heavy metals as may be prohibited by the District.

6. The following heavy metals or the salts thereof in solution or suspension which upon analysis by Standard Methods exceed the concentrations listed below:

| | Not to Exceed (mg/l) | | |
|---|---|---|---|
| Metal | Monthly Average | Daily Composite | Grab Sample |
| Arsenic | 1.000 | 1.500 | 3.000 |
| Barium | 5.000 | 7.500 | 15.000 |
| Cadmium | 0.083 | 0.125 | 0.250 |
| Chromium | 5.000 | 7.500 | 15.000 |
| Copper | 0.600 | 0.900 | 1.800 |
| Lead | 0.400 | 0.600 | 1.200 |
| Manganese | 2.000 | 3.000 | 6.000 |
| Mercury | 0.0005 | 0.0010 | 0.002 |
| Nickel | 5.000 | 7.500 | 15.000 |
| Selenium | 0.467 | 0.700 | 1.400 |
| Silver | 0.050 | 0.050 | 0.100 |
| Zinc | 2.000 | 3.000 | 6.000 |

7. Any other heavy metals or toxic materials except upon the conditions of pretreatment, concentration, volumes, and other applicable standards prescribed by the District or by applicable statutes, laws, rules, or regulations.

D. SOLID WASTE

No person may discharge solid waste into the Waste Disposal System unless it is properly shredded garbage. The District may review and approve the installation and operation of any garbage grinder equipped with a motor of three-fourth (3/4) horsepower (0.76 H.P. metric) or greater.

## IV.
## MINIMUM PRELIMINARY TREATMENT CRITERIA FOR COMMERCIAL WASTE

It is not the intent of this Wastewater Control Order to cover all the possibilities for types of businesses that could potentially discharge wastes that can be adverse to the Waste Disposal System. However, the common commercial enterprises found in the vicinity of residential neighborhoods have been considered.

1. Gasoline Sales/Car Repair. All floor drains in shop areas shall include a combination mud and grease trap similar to City of Houston Dwg. 359-S-1. All flows into these drains should subsequently be treated in a specially designed oil separator with positive means for oil and grease removal. A 48-hour detention grease trap (minimum 1,500 gallons) or a corrugated plate pack separator will provide such treatment. No drainage shall be pumped with a centrifugal pump prior to oil and grease separation. The traps shall be cleaned at least once a month. Safeguards shall be taken against contamination of groundwater due to leakage from fuel tanks. All piping and tankage for both oil and grease pretreatment facilities and product storage shall be of double wall construction and shall include integral leak detection monitors to preclude contamination of groundwater.

2. Car Wash Facilities. All car wash facilities shall recycle the maximum amount of wash water through the best commercially available systems and install a mud/grease trap for each drain followed by 96-hour detention gravity grease separation (minimum 1,500 gallons) or a corrugated plate pack separator. Mud, sludge, and grease removal shall be required at least once a month. If the car wash facility has gasoline pump(s), then the car wash facility must also have floor drains to include a mud and grease trap similar to City of Houston Dwg. 359-S-1. All flows into these drains should subsequently be treated in a specifically designed oil separator with positive means for oil and grease removal. Traps shall be cleaned at least once a month. Safeguards shall be taken against contamination of groundwater due to leakage from fuel tanks. All piping and tankage for both oil and grease pretreatment facilities and product storage shall be double wall construction and shall include integral leak detection monitors to preclude contamination of groundwater. A ground water monitoring well must also be installed.

3. Food Service/Grocery Stores. Restaurants, meat markets, grocery stores, and other establishments dealing with the sale of unprocessed or cooked foods shall be prohibited from using garbage grinders, shall require grease traps (minimum 1,500 gallons), shall install an inspection manhole for sampling, and shall insure that scrap food and grease are collected in sealed containers and hauled away for reprocessing. Grease traps shall be cleaned a minimum of once a month.

4. Printing and Photoprocessing. Printing and photo-processing facilities shall install a ground water monitoring well and shall discharge only domestic waste from sinks and restrooms. All printing and photoprocessing chemicals shall be collected in sealed containers and hauled away for reprocessing.

5. Laundry/Dry Cleaning. Laundry and dry cleaning facilities shall install a ground water monitoring well and shall incorporate a lint trap system equivalent to two

City of Houston Dwg. 533-S units in series, providing a minimum of 3,000 gallons of capacity. Cleaning of the lint trap is required at least once a month.

6. Landscaping/Nurseries. Landscaping and nurseries that use herbicides and pesticides shall install a ground water monitoring device and shall only discharge domestic waste from sinks and restrooms.

7. Discharge of Waters or Wastes Containing Toxic or Poisonous Substances; Submission of Written Statement. Where the operation of a person, firm, or corporation entails the discharge of water or wastes containing toxic or poisonous substances, a written statement setting forth the nature of the operation contemplated or presently carried on shall be filed with the District. The statement shall specify the amount of water that will be used and its source, the proposed point of discharge of wastes into the Waste Disposal System of the District, and the estimated amount to be discharged; the statement shall include a laboratory statement setting forth the expected bacterial, physical, chemical, and other known characteristics of said wastes. Within thirty (30) days from receipt of such statement, the District shall issue an order stating minimum restrictions necessary in the judgement of the District's Engineer to protect the District's systems.

Where pretreatment or control is required by the District, it shall review and approve the design and installation of the equipment and processes in conformity with all applicable laws and regulatory requirements. Any person responsible for discharges requiring such pretreatment or control facilities shall provide and maintain such facilities in effective operating conditions.

## V.
## TRAPS; INTERCEPTORS

Grease, oil, and sand interceptors shall be provided for the proper handling of liquid wastes containing grease in amounts that will impair the proper functioning of any sanitary sewer line and for preventing any flammable wastes, sand, and other harmful ingredients from entering into the sanitary sewers. Interceptors shall not be required for premises used exclusively as private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the District and shall be located as to be readily and easily accessible for cleaning and inspection. The Engineer and Operator shall review all plans for commercial establishments and determine when interceptors should be required and where they should be placed.

Grease and oil interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight, and equipped with easily removable covers which when bolted in place shall be gas-tight and watertight. Where installed, all grease, oil, and sand interceptors shall be maintained by the owner, at his expense, in continuously efficient operation at all times. Any facility with a mud and grease trap or grease trap or pretreatment system shall be required to remove grease, grit, sludge, or other residue at least once a month and shall maintain records at the site of the date, time, name of hauler, volume removed, destination, waste hauling permit number, and a copy of a hauler's manifest. Records shall be available for inspection by District's representatives during normal working hours. A facility not complying shall be subject to having water service terminated until the facility is brought into compliance.

## VI.
## SAMPLING; TESTING; INSPECTION; RIGHT OF ENTRY

A. Control Manholes: Installation, Location, and Maintenance. The owner of any property served by a sewer carrying Commercial Waste shall install a suitable control manhole in the sewer to facilitate observation, sampling, and measurement of the wastes. Such manhole shall be accessible and safely located and shall be constructed in accordance with plans approved by the District Engineer. The manhole shall be installed by the owner at his expense and shall be maintained by him so as to be safe and accessible at all times.

Owners of property served by a sewer carrying Commercial Waste and required to install a suitable manhole pursuant to this Article VI hereof and receiving water and sanitary sewer service from the District on the initial effective date of this Wastewater Control Order shall have 180 days from the initial effective date to install a suitable control manhole. Failure to install the manhole within 180 days as described herein shall result in the termination of water and sewer service to the property. All new connections served by a sewer carrying Commercial Waste shall have a suitable control manhole installed prior to receiving water and sewer service from the District.

B. Sampling/Testing. The District or its duly authorized agent or representative may enter at all reasonable times any lands or premises served or proposed to be served by the Waste Disposal System for the purposes of carrying out and determining compliance with the provisions hereof.
After the effective date hereof and upon completion of the installation of a suitable control manhole pursuant to Section VI(A) hereof, the Operator for the District shall conduct an initial test which shall consist of a minimum of one (1) grab sample and a maximum of three (3) grab samples, as determined by the District's Operator, from the control manhole of all sewers carrying Commercial Waste. If the results of the grab samples indicate that the waste being discharged into the Waste Disposal System is in accordance with this Wastewater Control Order, testing shall then be conducted on a periodic basis.

In the event the grab samples indicate that the waste being discharged into the Waste Disposal System is in violation of this Wastewater Control Order, then the owner of the property shall be notified and shall be required to submit a plan for the satisfactory correction of the violation in accordance with Subsection C of this Section, unless the violation presents an imminent danger to the health or welfare of the public, then service shall be terminated in accordance with Article IX hereof. The cost for all additional testing conducted as a result of the violation shall be billed to the commercial Customer, and failure to the pay such cost will result in the termination of water and sewer service.

Sampling and testing shall be conducted on connections carrying Commercial Waste in accordance with customarily accepted methods, reflecting the effects of constituent wastes upon the Waste Disposal System and the existence of hazards to health, life, limb, or property. Examination and analysis of the characteristics of water and waste shall be conducted in accordance with Standard Methods or such other manual of operation as the District may adopt from time to time in accordance with the latest rules of the Texas Commission on Environmental Quality and shall be determined from suitable samples taken at control points selected by the District. The cost to take and analyze such samples shall be added to the Customer's water and sewer service bill,

and failure to pay for such sample will result in the termination of the Customer's water and sewer service.

C. Notification of Violation/Submission of Plan. Whenever the District finds that any Customer has violated or is violating this Wastewater Control Order, except when such violation presents an imminent danger to the health or welfare of persons, as provided in Article IX, the District shall serve upon such person a written notice stating the nature of the violation. Within a period of not more than thirty (30) days from the date of the notice, as specified therein, a plan for satisfactory correction thereof shall be submitted in writing to the District. If such a plan is not timely submitted, or if such violation is not corrected, the District shall proceed with enforcement under Article XII. No prior notice shall be required for the imposition of the fine described in Article XI if such fine is assessed for a violation of this Wastewater Control Order.

## VII.
## SUPERVISION

If the District or its designated representative determines that a discharge or a proposed discharge into the Waste Disposal System may deleteriously affect the Waste Disposal System or receiving waters, or create a hazard to life or health, or create a public nuisance, it may require:

A. Discontinuation of the discharge into the District's sewer system in its entirety.

B. Pretreatment to an acceptable condition for discharge into the Waste Disposal System.

C. Control over the quantities and rates of discharge.

D. Waste surcharge payments sufficient to compensate the District for the cost of handling and treating the waste.

## VIII.
## COMMERCIAL WASTE CHARGES

In addition to the wastewater service charges made by the District, the District may charge customers discharging commercial waste into the Waste Disposal System the Commercial Waste Charges provided for herein where the waste discharge exceeds the parameters of normal domestic wastewater.

1. The Commercial Waste Charge shall be calculated by the following formula:

$$UC = Q[X + Y(BOD - 200) + Z(SS - 200) + n (N-35)]$$

Formula values are:

UC = Commercial Waste Charge (in dollars)

Q = Billable quantity (based on water billed or actual measurement of Wastewater discharged) of wastewater in thousands of gallons.

X = $0.50

Y = $0.0018

Z = $0.0022

n = $0.0125

BOD = Five-day, twenty (20) degrees celsius, biochemical oxygen demand content of the waste delivered, in mg/l based on monthly average concentration.

SS = Suspended solids content of the waste delivered, in mg/l based on monthly average concentration.

N = Ammonia content of the Waste delivered, in mg/l based on monthly average concentration.

The District shall review and, if appropriate, adjust the Commercial Waste Charges to reflect changes in the characteristics of the commercial waste of each user based upon the results of sampling and testing. The District also shall review the basis for determining Commercial Waste Charges and shall adjust the unit treatment costs in the above formula to reflect increases or decreases in the wastewater treatment costs based upon the prior experience. Increases in Commercial Waste Charges shall continue for six (6) billing periods unless subsequent tests determine that the charges should be further increased. If another method of billing is determined by the District's Board to be a more effective method of allocating such costs to the Customer, based upon the particular facts of each case, the District may use such method in lieu of the above. The Commercial Waste Charges will be billed as a separate item from wastewater service charges. Failure to pay the Commercial Waste Charge shall result in termination of water and sewer service pursuant to provisions of the District's Order Adopting Consolidated Rate Order and Rules and Regulations; Establishing Policy Regulating Water Use During Emergencies; Establishing a Wastewater Control Order; Establishing Certain Other Policies; and Providing Penalties for Violation Thereof.

## IX.
## EMERGENCY RELIEF

The District may immediately suspend the wastewater treatment service of a user when such suspension is necessary, in the opinion of the Board of the District, in order to stop or prevent an actual or threatened discharge that presents an imminent or substantial endangerment to the health or welfare of persons, to the environment, or to the Waste Disposal System of the District, or which would cause the effluent from the plant to exceed discharge parameters. The District may immediately suspend the wastewater treatment service of a user when such suspension is necessary, in the opinion of the Board of the District, to prevent contamination of sludge from the plant. The District shall reinstate the wastewater service upon proof of the elimination of the non-complying discharge. Such disconnection and reconnection shall be at the expense of the user. The District may permanently disconnect any user showing a history of flagrant or habitual violation of this Wastewater Control Order.

## X.
## REVIEW

Any user objecting to a decision or order of the District under authority of this Wastewater Control Order shall have the right to a hearing before the Board of the District, at which time the contentions of both the District and user shall be reviewed. The Board President, or in his absence the Vice President, shall be the presiding officer and may, at his discretion, request other professional opinions prior to rendering his decision on the matter of review.

## XI.
## PENALTY FOR VIOLATION OF ARTICLE

All violations of this Wastewater Control Order, including any failure to observe any discharge parameter set forth herein or permit issued pursuant to this Wastewater Control Order, shall be punishable with the Civil Penalties set forth in and under the Enforcement Provisions of the District's Rate Order and as set forth in Article XII of this Wastewater Control Order. Each day of a violation of any parameter or requirement constitutes a distinct and separate offense.

## XII.
## ENFORCEMENT

Any or all of the following remedies may be employed by the District to abate and prevent any violation of the provisions of this Wastewater Control Order:

1. Discontinuance of water service.
2. Disconnection and sealing of sanitary sewer connection.
3. The District's attorney may and is hereby authorized to:
   (a) File suit in a court of competent jurisdiction to secure appropriate judicial relief, including, but not limited to, injunctive relief and the penalty provided in the District's Rate Order for the violation by such user of the provisions of this Wastewater Control Order.
   (b) Seek a resolution of the Board authorizing the filing of a lawsuit under the provision of Texas Water Code §26.124.
4. A user found in violation of this Wastewater Control Order shall be liable to the District for all expenses borne by the District including laboratory fees, legal fees, engineering fees and other costs incurred by the District in establishing the violation and resolving the cause of the violation.
5. A user found in violation of this Wastewater Control Order that causes or contributes to a violation by the District's Waste Disposal System of effluent parameters shall be liable to the District for all expenses borne by the District, including legal and engineering fees related to any lawsuit filed by federal, state, or local authorities regarding violations by the District of effluent parameters applicable to the District's sanitary sewer system.
6. Where a user discharges wastewater to the District's Waste Disposal System in violation of this Wastewater Control Order and such discharge causes or contributes to contamination of sludge from the wastewater treatment plant, the user shall be liable for all costs borne by the District in disposing of the contaminated sludge over and above costs regularly incurred in sludge disposal.

## XIII.
## SEVERABILITY

All orders or parts of orders in conflict herewith are hereby repealed to the extent of such conflict. The invalidity of any section, clause, sentence, or provision of this Wastewater Control Order shall not affect the validity of any other part or parts of this Wastewater Control Order, which other part or parts shall be given effect as though such invalid section, clause, sentence, or provision were omitted.

## XIV.
## SUPERSEDING REGULATION OR STATUTE

Whenever any applicable statute, regulation, or permit of any state, federal, or other agency having jurisdiction over the subject matter of this Wastewater Control Order is in conflict with this Wastewater Control Order, the stricter requirement shall apply, unless mandated otherwise.

## XV.
## REIMBURSEMENT TO DISTRICT

In the event that any person, as defined in Section II herein, discharges industrial wastes as defined in this Wastewater Control Order, either with or without authorization by the District, such person shall be responsible for any extraordinary costs of operation of the wastewater treatment plant that might result from unauthorized wastes or improper handling of authorized wastes and shall also be responsible for any administrative fines, penalties or fees that may be assessed to the District for such discharge. Such charges may include, but not be limited to, the costs of determining the nature of the contaminant into the plant (a Toxicity Identification Evaluation), the costs of locating the source of the contaminant, and the costs of preventing the contaminant from entering the plant or eliminating the contaminant from the treatment units. Failure to pay such costs when billed may subject the entity to disconnection of services as set forth in Section XII above and to any other remedies available to the District.

## XVI.
## EFFECT OF REGULATION; AMENDMENT

The provisions hereof are to be deemed and construed as regulatory requirements supplementary and in addition to all laws, rules, regulations, ordinances, or licenses now in effect or hereafter passed, adopted, or promulgated by any regulatory agency, federal, state, or local, having jurisdiction over the District's Waste Disposal System. The provisions hereof are subject to amendment, repeal, or alteration from time to time by the Board of Directors of the District.

# APPENDIX D

## POLICIES AND PROCEDURES RELATED TO APPLICATIONS FOR WATER AND SEWER SERVICE, ANNEXATIONS, UTILITY COMMITMENTS AND OTHER REQUESTS

The policies and procedures set forth below supplement the provisions set forth in the District's Amended and Restated Rules and Regulations Governing Water and Sanitary Sewer Facilities, Service Lines, and Connections regarding applications for service.

Any person requesting water or sewer service or other information from the District or its consultants must follow the policies and procedures set forth below.

The Application attached hereto as Exhibit 1, along with a deposit in the amount set forth below made payable to the District, should be completed and submitted to the District's engineer or the District's attorney. The deposit applicable to each type of request is as follows:

| | | |
|---|---|---|
| 1. | Annexation Requests: | $10,000 |
| 2. | Utility Commitment Requests: | $1,500 |
| 3. | Pro Forma Requests for Water and Sewer Service: | $500 |
| 4. | All Other Requests: | $2,500 |

Upon receipt of the attached Application and the deposit, the engineer or attorney shall present the request to the Board of Directors of the District and obtain authorization for the District's consultants to begin the evaluation of the request. The Applicant will be notified of the time and place of the District's meeting at which the request will be discussed. The Applicant's attendance at the Board meeting is required to answer questions.

The deposit will be used to cover the expenses incurred by the District for the preliminary evaluation of the request by the consultants. The Board of Directors reserves the right to request additional deposit monies from the Applicant should the initial deposit not be sufficient to cover anticipated consultant costs during the review. If additional monies are not produced when requested, then all review work will be stopped and the application will become null and void upon ten (10) days written notice to the Applicant. Upon completion of the review by the District, any remaining portion of the deposit will be returned to the Applicant, except as otherwise provided in the utility commitment or other formal agreement issued by the Board.

Other pertinent facts and information the Applicant must be willing to agree to are listed below:

The Board of Directors has adopted the following policies for the purpose of providing water and sewer service for growth and development within the District in a uniform and nondiscriminatory manner. These policies and procedures shall apply uniformly throughout the District for any new or additional development:

1. Any party requesting service from the District shall be required to submit an Application to the Board of Directors for consideration. The Application shall be signed by the owner of the property for which service is requested.

2. Utility commitments shall not be issued on a long-term basis (i.e., generally no more than two (2) years).

3. Applications are non-transferrable, provided, however, that prospective buyers may jointly apply for service with the owner of the property.

4. Applications shall not be considered for property with delinquent taxes or other fees owed to the District.

5. No construction will begin on any improvements covered under a utility commitment or other formal agreement signed by the Board until the Applicant's construction drawings have been reviewed and approved by the engineer for the District.

6. No construction may begin on any improvements until all fees required by the District have been paid.

7. All conditions set forth in a utility commitment, including construction of above-ground improvements, must be satisfied prior to the expiration date contained in the commitment. If any conditions are not satisfied prior to the expiration of the commitment, the full amount of the deposit shall belong to the District.

8. The Applicant is required to provide the District with periodic written progress reports (at ninety (90)-day intervals or at other intervals approved by the Board) advising the Board of Directors as to the status of construction.

9. All tracts of land receiving service must be platted through the City of Houston, Harris County, and other appropriate agencies prior to utility service being provided by the District.

10. All temporary and permanent arrangements for sewer and water service must be coordinated in advance of construction with the District's engineer. The Applicant must make arrangements to extend the necessary trunk water, sanitary sewer and drainage facilities to serve its property in areas where such facilities do not exist. The Applicant will be expected to finance the necessary construction of additional facilities, including additional water plant and wastewater treatment plant capacity if necessary to serve the Applicant's property, unless the Board determines after consultation with its consultants that it is economically feasible for the District to finance the facilities. Reimbursement agreements are subject to negotiation with the Board.

11. The Applicant must convey all necessary easements and rights-of-way to the District without cost to the District and with all lienholder subordinations.

12. All utility lines constructed that are not in public easements or rights of way or which lie within private developments (apartments, condominiums, etc.) shall remain the permanent property of the landowner and shall remain such owner's permanent maintenance responsibility.

13. The Applicant shall furnish a statement of the estimated value of the proposed project as a part of the initial Application, broken down by land value and improvements.

14. Any change to the previously approved use of the property covered by the Application shall terminate any utility commitments or other agreements issued by the District unless otherwise requested by the property owner and approved by the District in writing.

15. Service shall be extended to a tract in accordance with the District's then-current Rate Order, including the payment of any tap fee.

16. In addition to the other referenced prerequisites, the following requirements are applicable to requests for annexation:

(a) An annexation agreement shall be signed by the District and the property owner before any property is annexed to the District. The annexation agreement shall govern the terms and conditions of each annexation.

(b) A feasibility study shall be prepared by the District's engineer.

(c) The Applicant shall provide to the District a copy of the deed showing current ownership of the property referenced in the Application.

(d) The Applicant shall submit to the District a current title commitment.

(e) The District's attorney shall prepare the annexation petition to the District and the petition to the City of Houston for its consent to the annexation. The Applicant acknowledges that the annexation process may take six (6) months or more and that following completion of the annexation the annexed property will be subject to the annual ad valorem taxes and other fees charged by the District.

(f) All costs of annexation, including attorney's fees, engineering fees, and any and all other fees relating to said annexation, shall be paid by the Applicant.

(g) The Applicant shall provide to the District a copy of the current survey of the property, including a metes and bounds description.

**EXHIBIT "1" TO APPENDIX D**

**APPLICATION FOR SERVICE**
**CHIMNEY HILL MUNICIPAL UTILITY DISTRICT**

Type of Application: _____ Single-Family Residential
_____ Multi-Family Residential
_____ Commercial
_____ Institutional

Name of Applicant: _____

Address: _____

Type of Business: _____

Type of Service Requested: _____ In-District _____ Out-of-District
_____ Water _____ Wastewater

Proposed Land Use:

Estimated date construction will begin: _____

Proposed acreage in development: _____

Estimated taxable value: _____ land _____ improvements

Units per acre: _____

Type of wastewater to be put in system:

_____

Capacity Required: Water_____ Wastewater_____

Name and address of title holder to referenced property:

_____

_____

_____

Please attach a small map to the application indicating proposed location of project, and boundaries of subject tract.

Applicant agrees that it shall notify the District if any of the above information should change during the Application process. This Application along with the requisite deposit must be submitted to the District's engineer or the District's attorney.

Signature of Applicant: _____

Date: _____

Signature of Owner: _____

Date: _____

**For District Use Only**

Operator's recommendation:

_____

_____

_____

Engineer's recommendation:

_____

_____

_____

Attorney's recommendation:

_____

_____

_____

Is Annexation Required:

_____

Amount of Service recommended: Water_____

Wastewater_____

Tap Fee Required:

_____

Additional Considerations:

_____

_____

_____

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 14

## CORE DATA FORM

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

# TCEQ Core Data Form

TCEQ Use Only

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

| 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 601359292 | | RN 102834272 |

## 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:*

Chimney Hill Municipal Utility District

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

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

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

**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:**

c/o Coats Rose, P.C.
9 Greenway Plaza, Suite 1100

| City | State | ZIP | ZIP + 4 |
|---|---|---|---|
| Houston | TX | 77046 | |

| 16. Country Mailing Information *(if outside USA)* | 17. E-Mail Address *(if applicable)* |
|---|---|
| | wyale@coatsrose.com |

| 18. Telephone Number | 19. Extension or Code | 20. Fax Number *(if applicable)* |
|---|---|---|
| ( 713 ) 651-0111 | | ( 713 ) 942-9590 |

## 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.*)

Chimney Hill Municipal Utility District Wastewater Treatment Facility

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **23. Street Address of the Regulated Entity:** *(No PO Boxes)* | 13450 Traders Village Dr | | | | | | |
| | **City** | Houston | **State** | TX | **ZIP** | 77041 | **ZIP + 4** |
| **24. County** | Harris | | | | | | |

**Enter Physical Location Description if no street address is provided.**

| | | | | | |
|---|---|---|---|---|---|
| **25. Description to Physical Location:** | | | | | |
| **26. Nearest City** | | | **State** | | **Nearest ZIP Code** |
| Houston | | | TX | | 77041 |
| **27. Latitude (N) In Decimal:** | 29.89101 | | **28. Longitude (W) In Decimal:** | -95.61022 | |
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 29 | 53 | 27.65 | -95 | 36 | 36.79 |

| | | | |
|---|---|---|---|
| **29. Primary SIC Code** (4 digits) | **30. Secondary SIC Code** (4 digits) | **31. Primary NAICS Code** (5 or 6 digits) | **32. Secondary NAICS Code** (5 or 6 digits) |
| 4952 | | 22132 | |

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

Serves to treat wastewater from Chimney Hill Municipal Utility District

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **34. Mailing Address:** | **c/o Coats Rose, P.C.** | | | | | | |
| | **9 Greenway Plaza, Suite 1100** | | | | | | |
| | **City** | **Houston** | **State** | **TX** | **ZIP** | **77046** | **ZIP + 4** |
| **35. E-Mail Address:** | **wyale@coatsrose.com** | | | | | | |

| | | |
|---|---|---|
| **36. Telephone Number** | **37. Extension or Code** | **38. Fax Number** *(if applicable)* |
| **( 713 ) 651-0111** | | **( ) -** |

**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 |
| | | | | |
| ☐ Voluntary Cleanup | ☒ Waste Water | ☐ Wastewater Agriculture | ☐ Water Rights | ☐ Other: |
| | WQ0012304-001 | | | |

## SECTION IV: Preparer Information

| | | | |
|---|---|---|---|
| **40. Name:** | Jonathan D. Liu, P.E. | **41. Title:** | Project Manager |

| | | | |
|---|---|---|---|
| **42. Telephone Number** | **43. Ext./Code** | **44. Fax Number** | **45. E-Mail Address** |
| ( 713 ) 942-2700 | | ( ) - | jdl@as-engineers.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:** | Chimney Hill Municipal Utility District | **Job Title:** | Board President |
| **Name** *(In Print):* | W. Jay Szinyei | **Phone:** | (713) 268 3791 |
| **Signature:** | | **Date:** | 9/10/2025 |

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 15

## SUMMARY OF APPLICATION IN PLAIN LANGUAGE TEMPLATE




**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

## Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how you will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements. After filling in the information for your facility delete these instructions.

If you are subject to the alternative language notice requirements in 30 TAC Section 39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS**
**Enter 'INDUSTRIAL' or 'DOMESTIC' here WASTEWATER/STORMWATER**
*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.*

Chimney Hill Municipal Utility District (CN601359292) operates Chimney Hill Municipal Utility District Wastewater Treatment Facility (RN 102834272), a wastewater treatment plan. The facility is located at 13450 Traders Village Drive, in Houston, Harris County, Texas 77041. This application is for a major amendment to modify the Total Copper Discharge Limitations.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), and ammonia nitrogen ($NH_3$-N). Domestic Wastewater is treated by an activated sludge process plant and the treatment units include a fine screen, aeration basins, clarifiers, aerobic digesters, and chlorine contact basin.

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

**AGUAS RESIDUALES** Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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

Chimney Hill Municipal Utility District (CN601359292) opera Chimney Hill Municipal Utility District Wastewater Treatment Facility (RN 102834272), una planta de tratamiento de aguas residuales. La instalación estará ubicada en 13450 Traders Village Drive, en Houston, Condado de Harris, Texas 77041. Esta solicitud es para una enmienda importante para modificar las limitaciones de descarga total de cobre.

Se espera que las descargas de la instalación contengan bioquímica de oxígeno carbonoso (CBOD5), solidos suspendidos totales (TSS), y nitrógeno amoniacal (NH3-N). Las aguas residuales domesticas. estará tratado por un modo de mezcla completa del proceso de lodos activados, que incluye cribado, balsas de aireación, clarificadores, digestores aerobios y desinfección.

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 16

## PUBLIC INVOLVEMENT PLAN FORM

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

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.

## 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)

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 17

## DISCHARGE AUTHORIZATION REQUEST

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

A&S Engineers, Inc.

September 2, 2025

Darrel Hahn
Harris County Floodplain Administrator
Harris County
10555 Northwest Fwy
Houston, Texas 77092

Re: Chimney Hill MUD
WWTP Discharge Permit – Major Amendment and Renewal
Request for Additional Discharge to Ben's Branch
A&S Project No. 092008.07

Dear Mr. Hahn:

We are applying for a major amendment to the current TCEQ domestic wastewater discharge permit of Chimney Hill Municipal Utility District (MUD) wastewater treatment plant. The plant is currently permitted for 1.2 MGD and not planned to change. We are only proposing a major amendment to amend discharge limitations for the Total Copper.

The plant currently discharges to Harris County Flood Control District ditch U106-05-00, thence to Horsepen Creek, thence to Langham Creek, thence to Bear Creek, thence to South Mayde Creek, thence to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. TCEQ is requiring authorization from HCFCD to discharge treated wastewater for the major permit amendment.

The proposed amendment will not result in any adverse impact on adjacent properties or properties downstream of the outfall.

If you have any questions, please feel free to contact me at 713-942-2700.

Regards,

Jonathan D. Liu, P.E.
Project Manager



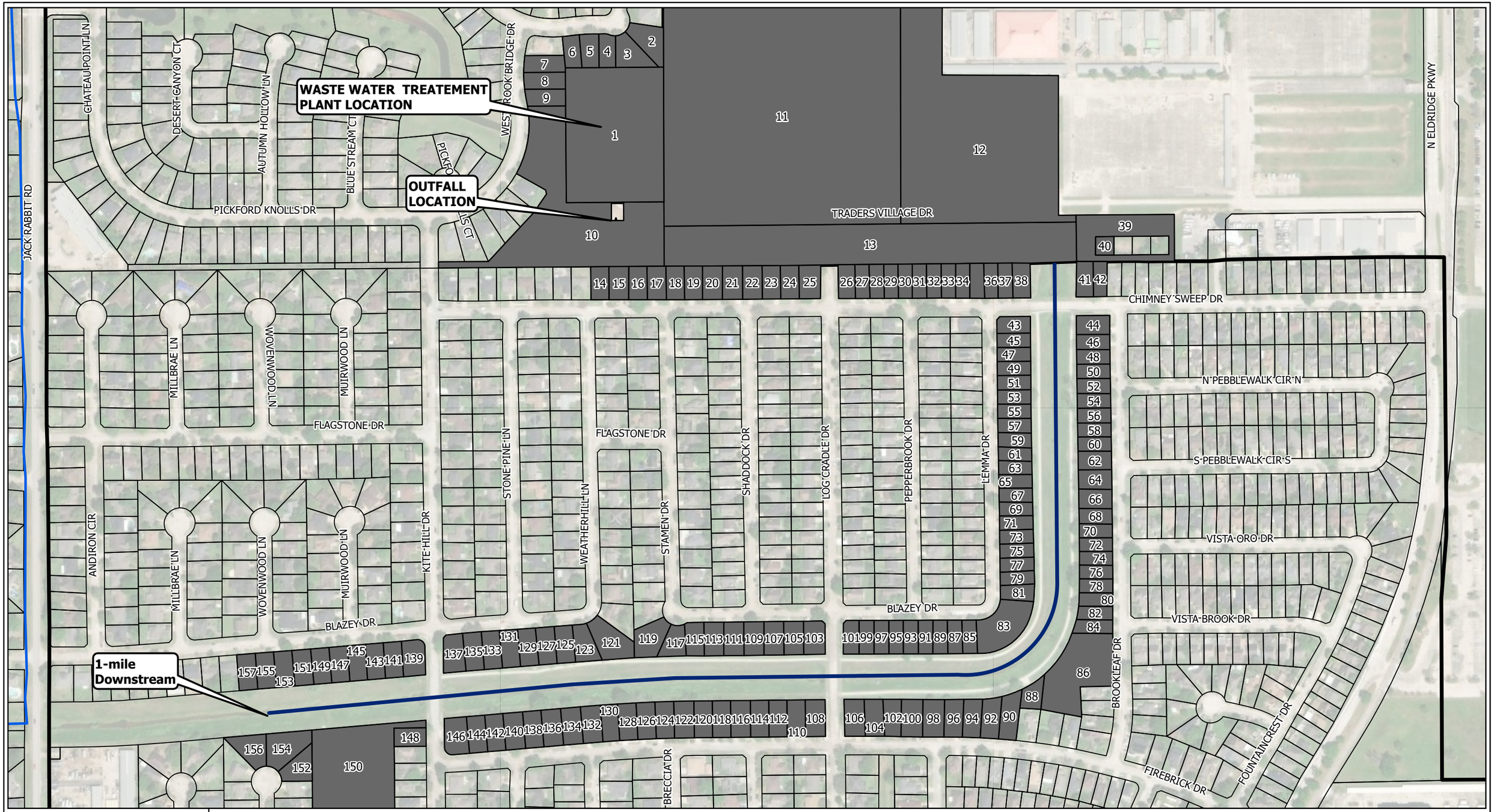
10377 Stella Link Road | Houston, TX 77025 | 713 / 942 / 2700 | www.as-engineers.com

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 18

## LANDOWNER'S MAP AND LIST

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




CHIMNEY HILL M.U.D.

**AFFECTED LAND OWNERS MAP**

- Service Area
- HCAD Parcels
- WWTP Site
- Outfall Location
- 1 Mile
- Rivers and Streams

A&S Engineers, Inc.

DRAWING NOT TO SCALE

N W E S

| Tract ID | HCAD_NUM | OWNER | TRACT ADDRESS | TRACT CITY | TRACT ZIP | MAILING ADDRESS | MAILING CITY | MAILING STATE | MAILING ZIP |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1173240000001 | CHIMNEY HILL MUD | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 800 FIRST CITY TOWER | HOUSTON | TX | 77002- |
| 2 | 1231060040066 | YOUNGBLOOD WILLIAM | 7902 INGLE OAK DR | HOUSTON | 77041 | 7902 INGLE OAK DR | HOUSTON | TX | 77041-1273 |
| 3 | 1231060040067 | QUEST TRUST COMPANY | 13603 SHORT BROOK LN | HOUSTON | 77041 | 17171 PARK ROW STE 100 | HOUSTON | TX | 77084-4935 |
| 4 | 1231060040068 | POPOOLA OLADELE & OLAYINKA | 13607 SHORT BROOK LN | HOUSTON | 77041 | 13607 SHORT BROOK LN | HOUSTON | TX | 77041-1280 |
| 5 | 1231060040069 | ALSOULIMAN ABEER | 13611 SHORT BROOK LN | HOUSTON | 77041 | 13618 BIRCH CANYON CT | HOUSTON | TX | 77041-1264 |
| 6 | 1231060040070 | TRAN HARRIS | 13615 SHORT BROOK LN | HOUSTON | 77041 | 13615 SHORT BROOK LN | HOUSTON | TX | 77041-1280 |
| 7 | 1231060040072 | LEE TIN | 7834 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7834 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1287 |
| 8 | 1231060040073 | BACHAND MARK R | 7830 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7830 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1287 |
| 9 | 1231060040074 | SUH JUNG K | 7826 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7826 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1287 |
| 10 | 1231060040075 | CHIMNEY HILL MUD | 0 WESTBROOK BRIDGE DR | HOUSTON | 77041 | PO BOX 1368 | FRIENDSWOOD | TX | 77549-1368 |
| 11 | 1170020010001 | T V H LAND CO LP | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 420 THROCKMORTON ST STE 710 | FORT WORTH | TX | 76102-3724 |
| 12 | 1170020010003 | TVH LAND COMPANY LP | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 420 THROCKMORTON ST STE 710 | FORT WORTH | TX | 76102-3724 |
| 13 | 1170020020002 | HARRIS COUNTY FLOOD CONTROL DISTRICT | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 9900 NORTHWEST FWY | HOUSTON | TX | 77092-8601 |
| 14 | 1123830000009 | FRANKLIN KAREN | 13518 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13518 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 15 | 1123830000010 | BLANCO MARIA T ESTATE OF | 13514 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13514 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 16 | 1149360020010 | HERRERA JOHN J IV | 13510 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13510 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 17 | 1149360020009 | MARTINEZ BRIANNA | 13506 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13506 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 18 | 1149360020008 | VACA JOSE | 13502 CHIMNEY SWEEP DR | HOUSTON | 77041 | 7522 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 19 | 1149360020007 | PERALTA RAFAEL M | 13426 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13426 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 20 | 1149360020006 | CET J PROPERTIES LLC | 13422 CHIMNEY SWEEP DR | HOUSTON | 77041 | 10823 EVERWOOD LN | HOUSTON | TX | 77024-5416 |
| 21 | 1149360020005 | ORTIZ ROQUE & LUCILA | 13418 CHIMNEY SWEEP DR | HOUSTON | 77041 | 19319 COLONY GROVE LN | KATY | TX | 77449-7497 |
| 22 | 1149360020004 | GANZINOTTI ANDREA | 13414 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13414 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 23 | 1149360020003 | MARTINEZ RAUL D | 13410 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13410 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 24 | 1149360020002 | GONZALES ANGEL EUGENIO VILLATORO | 13406 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13406 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 25 | 1149360020001 | SALAZAR ART & ORALIA | 13402 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13402 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 26 | 1149360010001 | VILLALON JUVENTINO | 13338 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13338 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 27 | 1149360010002 | ROMERO LUIS A | 13334 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13334 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 28 | 1149360010003 | ISLA HOMES LLC | 13330 CHIMNEY SWEEP DR | HOUSTON | 77041 | 1210 MARCONI ST | HOUSTON | TX | 77019-4210 |
| 29 | 1149360010004 | GARCIA ANTONIO & MARIA | 13326 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13326 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 30 | 1149360010005 | P & P GREEN TREE ENTERPRISES LLC | 13322 CHIMNEY SWEEP DR | HOUSTON | 77041 | 8411 MOSSHANG CT | HOUSTON | TX | 77040-1553 |
| 31 | 1149360010006 | LINARES DULIO A | 13318 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13318 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 32 | 1149360010007 | UMANZOR JOSE F | 13314 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13314 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 33 | 1149360010008 | BANUELOS ERIKA YAZMIN & ERIK | 13310 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13310 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 34 | 1149360010009 | CHOTO ANA | 13306 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13306 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 35 | 1149360010010 | DIAZ JEORGE | 13302 CHIMNEY SWEEP DR | HOUSTON | 77041 | 5018 SCHULER ST | HOUSTON | TX | 77007-3352 |
| 36 | 1149360010011 | TORRES MATILDA ESTATE OF | 13242 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13242 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1555 |
| 37 | 1149360010012 | RAMIREZ LORENZO | 13238 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13238 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1555 |
| 38 | 1149360010013 | HERNANDEZ JUAN C & DELMY L | 13234 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13234 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1555 |
| 39 | 1170020020001 | TVH LAND COMPANY LP | 7979 TRADERS VILLAGE DR | HOUSTON | 77041 | 420 THROCKMORTON ST STE 710 | FORT WORTH | TX | 76102-3724 |
| 40 | 1170020020003 | PEACO PAMELA R | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 15119 HOWLAND ST | HOUSTON | TX | 77084-2031 |
| 41 | 1151170010009 | ALROUSAN QASSEM WAEL | 13226 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13226 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1552 |
| 42 | 1151170010008 | GARCIA EMILIO & LORENA | 13224 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13224 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1552 |
| 43 | 1149360090001 | CLARK IKE | 7634 LEMMA DR | HOUSTON | 77041 | 7634 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 44 | 1151170030012 | JANDRES BERNARDINA | 7639 BROOKLEAF DR | HOUSTON | 77041 | 7639 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 45 | 1149360090002 | NOYOLA MARISELA | 7630 LEMMA DR | HOUSTON | 77041 | 7630 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 46 | 1151170030011 | NOYOLA SAUL & MARTA M | 7635 BROOKLEAF DR | HOUSTON | 77041 | 7635 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 47 | 1149360090003 | LANDAVERDE JULIO | 7626 LEMMA DR | HOUSTON | 77041 | 7626 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 48 | 1151170030010 | US SFE ASSET COMPANY 1 LLC | 7631 BROOKLEAF DR | HOUSTON | 77041 | 5001 PLAZA ON THE LK STE 200 | AUSTIN | TX | 78746-1053 |
| 49 | 1149360090004 | PFIRMAN RICHARD L | 7622 LEMMA DR | HOUSTON | 77041 | 2611 CYPRESS CREEK PKWY STE A102 | HOUSTON | TX | 77068-3730 |
| 50 | 1151170030009 | RAMIREZ JUANITA | 7627 BROOKLEAF DR | HOUSTON | 77041 | 7627 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 51 | 1149360090005 | MIRELES DAVID | 7618 LEMMA DR | HOUSTON | 77041 | 7618 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 52 | 1151170030008 | PULDO FELICIANO | 7623 BROOKLEAF DR | HOUSTON | 77041 | 7623 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 53 | 1149360090006 | LARRAZABAL ELIZABETH | 7614 LEMMA DR | HOUSTON | 77041 | 1378 COUNTRY PLACE DR | HOUSTON | TX | 77079-3126 |
| 54 | 1151170030007 | CISNEROS JUAN A | 7619 BROOKLEAF DR | HOUSTON | 77041 | 7619 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 55 | 1149360090007 | KUSKO DAVID J & REBECCA & | 7610 LEMMA DR | HOUSTON | 77041 | 18303 W LITTLE YORK RD | KATY | TX | 77449-5761 |
| 56 | 1151170030006 | MORALES JOSE J | 7615 BROOKLEAF DR | HOUSTON | 77041 | 7615 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 57 | 1149360090008 | ESPARZA ARTURO S | 7606 LEMMA DR | HOUSTON | 77041 | 7606 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 58 | 1151170030005 | SALGADO GUADALUPE | 7611 BROOKLEAF DR | HOUSTON | 77041 | 7611 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 59 | 1149360090009 | RODRIGUEZ MICHELLE | 7602 LEMMA DR | HOUSTON | 77041 | 7602 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 60 | 1151170030004 | FARLEY JOHN L | 7607 BROOKLEAF DR | HOUSTON | 77041 | 7607 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 61 | 1149360090010 | JONES CALE A | 7546 LEMMA DR | HOUSTON | 77041 | 7546 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 62 | 1151170030003 | BROCKETT CHRISTOPHER | 7603 BROOKLEAF DR | HOUSTON | 77041 | 7603 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 63 | 1149360090011 | GONZALEZ JOSE GUADALUPE VEGA | 7542 LEMMA DR | HOUSTON | 77041 | 7542 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 64 | 1151170030002 | DAO PETER | 7527 BROOKLEAF DR | HOUSTON | 77041 | 7527 BROOKLEAF DR | HOUSTON | TX | 77041-1828 |
| 65 | 1149360090012 | HAMILTON REAL ESTATE INVESTMENTS LLC | 7538 LEMMA DR | HOUSTON | 77041 | 18002 BLUES POINT DR | CYPRESS | TX | 77429-7600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 66 | 1151170030001 | OJEDA BLANCA | 7523 BROOKLEAF DR | HOUSTON | 77041 | 7523 BROOKLEAF DR | HOUSTON | TX | 77041-1828 |
| 67 | 1149360090013 | DIAZ YUDY | 7534 LEMMA DR | HOUSTON | 77041 | 6610 JACKWOOD ST | HOUSTON | TX | 77074-7126 |
| 68 | 1152810010001 | LOPEZ MIGUEL V & MARIA F | 7521 BROOKLEAF DR | HOUSTON | 77041 | 7521 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 69 | 1149360090014 | RODRIGUEZ JOMAG M | 7530 LEMMA DR | HOUSTON | 77041 | 7530 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 70 | 1152810010002 | CAMCHO ISMAEL BANDA | 7519 BROOKLEAF DR | HOUSTON | 77041 | 7519 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 71 | 1149360090015 | VACA JOSE C | 7526 LEMMA DR | HOUSTON | 77041 | 7522 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 72 | 1152810010003 | NAVA MARIA L | 7517 BROOKLEAF DR | HOUSTON | 77041 | 7517 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 73 | 1149360090016 | VACA JOSE C & ROSA M | 7522 LEMMA DR | HOUSTON | 77041 | 7522 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 74 | 1152810010004 | MALONE MICHAEL | 7515 BROOKLEAF DR | HOUSTON | 77041 | 7515 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 75 | 1149360090017 | MORALES JORGE | 7518 LEMMA DR | HOUSTON | 77041 | 7127 WILLOW BRIDGE CIR | HOUSTON | TX | 77095-3233 |
| 76 | 1152810010005 | GRUPA LINDA KAY | 7513 BROOKLEAF DR | HOUSTON | 77041 | 7513 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 77 | 1149360090018 | BALLARD REVOCABLE TRUST | 7514 LEMMA DR | HOUSTON | 77041 | 16506 DUNLEITH CIR | CYPRESS | TX | 77429-4832 |
| 78 | 1152810010006 | WEBBER CARL & KATHERINE | 7511 BROOKLEAF DR | HOUSTON | 77041 | 205 S MAIN ST | PALMYRA | MO | 63461-1649 |
| 79 | 1149360090019 | MILLIGAN RHONDA SUE | 7510 LEMMA DR | HOUSTON | 77041 | 7510 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 80 | 1152810010007 | BRUNO FRANK J & JERI L | 7507 BROOKLEAF DR | HOUSTON | 77041 | 7507 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 81 | 1149360090020 | SINGH LAL & PARAMJEET | 7506 LEMMA DR | HOUSTON | 77041 | 14715 ENGLEBROOK DR | HOUSTON | TX | 77095-3058 |
| 82 | 1152810010008 | SALGADO JUAN U | 7503 BROOKLEAF DR | HOUSTON | 77041 | 13146 PEBBLEWALK CIR NORTH | HOUSTON | TX | 77041-1823 |
| 83 | 1149360090031 | CHIMNEY HILL COMMUNITY ASSOCIATION INC | 0 BLAZEY DR | HOUSTON | 77041 | 15995 N BARKERS LANDING RD STE 162 | HOUSTON | TX | 77079-2471 |
| 84 | 1152810010009 | VASQUEZ TOMASA M | 7427 BROOKLEAF DR | HOUSTON | 77041 | 7427 BROOKLEAF DR | HOUSTON | TX | 77041-1827 |
| 85 | 1149360090021 | MENDOZA MIGUEL | 13307 BLAZEY DR | HOUSTON | 77041 | 13307 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 86 | 1152810010024 | CHIMNEY HILL IV V VI CIA | 7419 BROOKLEAF DR | HOUSTON | 77041 | 1400 BROADFIELD BLVD STE 600 | HOUSTON | TX | 77084-5133 |
| 87 | 1149360090022 | VILTRES ALEXANDER | 13311 BLAZEY DR | HOUSTON | 77041 | 13311 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 88 | 1152810010023 | CHIMNEY HILL MUD | 0 FIREBRICK DR | HOUSTON | 77041 | 800 FIRST CITY TOWER | HOUSTON | TX | 77002- |
| 89 | 1149360090023 | CANTU TAMMY | 13315 BLAZEY DR | HOUSTON | 77041 | 13315 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 90 | 1152810010017 | NGO TAI VAN | 13312 FIREBRICK DR | HOUSTON | 77041 | 13312 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 91 | 1149360090024 | ARCOS YENI M | 13319 BLAZEY DR | HOUSTON | 77041 | 13319 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 92 | 1152810010018 | MUNOZ ELIAS & YOLANDA | 13314 FIREBRICK DR | HOUSTON | 77041 | 13314 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 93 | 1149360090025 | ALVAREZ MAXIMILIANO & REYNA | 13323 BLAZEY DR | HOUSTON | 77041 | 13323 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 94 | 1152810010019 | GAZI EMRAN H | 13316 FIREBRICK DR | HOUSTON | 77041 | 15703 PARK CENTER WAY | HOUSTON | TX | 77059-4051 |
| 95 | 1149360090026 | ALAMILLO MYRIAM | 13327 BLAZEY DR | HOUSTON | 77041 | 13327 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 96 | 1152810010020 | ROBLES DARIO | 13318 FIREBRICK DR | HOUSTON | 77041 | 13318 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 97 | 1149360090027 | SAVORY REBECA E | 13339 LEMMA DR | HOUSTON | 77041 | 16902 KILWINNING DR | HOUSTON | TX | 77084-1842 |
| 98 | 1152810010021 | NINO JUAN CARLOS M | 13320 FIREBRICK DR | HOUSTON | 77041 | 13320 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 99 | 1149360090028 | SALGADO MARIA F | 13335 BLAZEY DR | HOUSTON | 77041 | 13335 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 100 | 1152810010022 | OCAMPO MIGUEL & ELVIA | 13322 FIREBRICK DR | HOUSTON | 77041 | 13322 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 101 | 1149360090029 | VELASQUEZ PETRA D | 13339 BLAZEY DR | HOUSTON | 77041 | 13339 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 102 | 1152810010025 | CHIMNEY HILL MUD | 0 FIREBRICK DR | HOUSTON | 77041 | 800 1ST CITY TOWER | HOUSTON | TX | 77002-6706 |
| 103 | 1149360040018 | CASTRO NORMA & | 13403 BLAZEY DR | HOUSTON | 77041 | 13403 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 104 | 1110700000002 | BELLO PAULA SALVADOR | 13328 FIREBRICK DR | HOUSTON | 77041 | 13328 FIREBRICK DR | HOUSTON | TX | 77041-1865 |
| 105 | 1149360040017 | MARTINEZ OMAR & LORENA | 13407 BLAZEY DR | HOUSTON | 77041 | 13407 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 106 | 1110700000001 | GALINDO VICTOR | 13330 FIREBRICK DR | HOUSTON | 77041 | 13330 FIREBRICK DR | HOUSTON | TX | 77041-1865 |
| 107 | 1149360040016 | MCKEE WILLIAM R & CAROLINE | 13411 BLAZEY DR | HOUSTON | 77041 | 13411 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 108 | 1110690000020 | PEREZ MARIA | 13402 FIREBRICK DR | HOUSTON | 77041 | 13402 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 109 | 1149360040015 | MARADIAGA YEFRI L | 13415 BLAZEY DR | HOUSTON | 77041 | 13415 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 110 | 1110690000019 | CRUZ HERDI | 13406 FIREBRICK DR | HOUSTON | 77041 | 13406 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 111 | 1149360040014 | BARRERA ERASMO | 13419 BLAZEY DR | HOUSTON | 77041 | 13419 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 112 | 1110690000018 | LOZANO JAVIER | 13410 FIREBRICK DR | HOUSTON | 77041 | 13410 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 113 | 1149360040013 | PALOMARES ROLFI | 13423 BLAZEY DR | HOUSTON | 77041 | 13423 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 114 | 1110690000017 | SFR JV 1 2019 1 BORROWER LLC | 13414 FIREBRICK DR | HOUSTON | 77041 | 1508 BROOKHOLLOW DR | SANTA ANA | CA | 92705-5426 |
| 115 | 1149360040012 | AYRES NANCY | 13427 BLAZEY DR | HOUSTON | 77041 | 13427 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 116 | 1110690000016 | MAI TAI NOODLE HOUSE & GRILLS LLC | 13418 FIREBRICK DR | HOUSTON | 77041 | 9344 JONES RD STE O | HOUSTON | TX | 77065-5361 |
| 117 | 1149360040011 | DOWDY MICHAEL W | 13431 BLAZEY DR | HOUSTON | 77041 | 13431 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 118 | 1110690000015 | CHAVEZ JOSE S & ROSAURA G | 13422 FIREBRICK DR | HOUSTON | 77041 | 13422 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 119 | 1149360040010 | DELEON MANUEL | 7503 STAMEN DR | HOUSTON | 77041 | 7503 STAMEN DR | HOUSTON | TX | 77041-1537 |
| 120 | 1110690000014 | HERRERA GENARO & OFELIA | 13426 FIREBRICK DR | HOUSTON | 77041 | 13426 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 121 | 1123810000010 | CARRIZALES MARCO ANTONIO MADRIGAL | 13603 BLAZEY DR | HOUSTON | 77041 | 13603 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 122 | 1110690000013 | ESTRADA JORGE R | 13430 FIREBRICK DR | HOUSTON | 77041 | 13430 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 123 | 1123810000011 | CAMARGO CYNTHIA GUZMAN | 13607 BLAZEY DR | HOUSTON | 77041 | 13607 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 124 | 1110690000012 | RIVERA RUBEN E | 13502 FIREBRICK DR | HOUSTON | 77041 | 13502 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 125 | 1123810000012 | SALGADO LEONEL | 13611 BLAZEY DR | HOUSTON | 77041 | 7914 SWAN HOLLOW CT | HOUSTON | TX | 77041-1255 |
| 126 | 1110690000011 | CUSTODIO ENRIQUE & LETICIA | 13506 FIREBRICK DR | HOUSTON | 77041 | 13506 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 127 | 1123810000013 | DENARD FRED J | 13615 BLAZEY DR | HOUSTON | 77041 | 13615 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 128 | 1110690000010 | FERNANDEZ RAFAEL & ELIA | 13510 FIREBRICK DR | HOUSTON | 77041 | 13510 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 129 | 1123810000014 | CHAVEZ MAURICIO & ISABEL | 13619 BLAZEY DR | HOUSTON | 77041 | 13619 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 130 | 1110690000009 | CAMPOS ALFONSO | 13514 FIREBRICK DR | HOUSTON | 77041 | 13514 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 131 | 1123810000015 | CRUZ BARTOLO & HERIBERTA | 13623 BLAZEY DR | HOUSTON | 77041 | 13623 BLAZEY DR | HOUSTON | TX | 77041-1575 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 132 | 1110690000008 | MOLINA CESAR E | 13518 FIREBRICK DR | HOUSTON | 77041 | 13518 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 133 | 1123810000016 | DELATORRE IGNACIO & DANA | 13627 BLAZEY DR | HOUSTON | 77041 | 5714 ELDRIDGE GLEN DR | HOUSTON | TX | 77041-4295 |
| 134 | 1110690000007 | SERNA MARTIN | 13602 FIREBRICK DR | HOUSTON | 77041 | 13602 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 135 | 1123810000017 | SCHALIT TRACI J | 13631 BLAZEY DR | HOUSTON | 77041 | 13631 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 136 | 1110690000006 | HUNT CHARLES | 13606 FIREBRICK DR | HOUSTON | 77041 | 13606 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 137 | 1123810000018 | HA HUONG NGUYET | 13635 BLAZEY DR | HOUSTON | 77041 | 13635 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 138 | 1110690000005 | LOPEZ CLARO G & LAURA J | 13610 FIREBRICK DR | HOUSTON | 77041 | 13610 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 139 | 1123800000020 | MENJIVAR ULISES T | 13703 BLAZEY DR | HOUSTON | 77041 | 13703 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 140 | 1110690000004 | MATA PRESCILIANO | 13614 FIREBRICK DR | HOUSTON | 77041 | 13614 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 141 | 1123800000019 | ADDICKS GLYNNDA | 13707 BLAZEY DR | HOUSTON | 77041 | 2402 QUAIL VALLEY EAST DR | MISSOURI CITY | TX | 77459-3330 |
| 142 | 1110690000003 | QUEST TRUST COMPANY | 13618 FIREBRICK DR | HOUSTON | 77041 | 17171 APRK ROW STE 100 | HOUSTON | TX | 77084- |
| 143 | 1123800000018 | ORTEGA CESAR A | 13711 BLAZEY DR | HOUSTON | 77041 | 13711 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 144 | 1110690000002 | EICHELBERGER GEORGE W JR | 13622 FIREBRICK DR | HOUSTON | 77041 | 13622 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 145 | 1123800000017 | SREY VANTHAN | 13715 BLAZEY DR | HOUSTON | 77041 | 13715 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 146 | 1110690000001 | GARCIA ERNESTO & MARIA G | 13626 FIREBRICK DR | HOUSTON | 77041 | 13626 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 147 | 1123800000016 | GUTIERREZ CARLOS & MARIA S | 13719 BLAZEY DR | HOUSTON | 77041 | 13719 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 148 | 1110620000023 | GUTIERREZ MARIA E | 7443 KITE HILL DR | HOUSTON | 77041 | 7443 KITE HILL DR | HOUSTON | TX | 77041-1605 |
| 149 | 1123800000015 | REYNA JERRY & DIANA | 13723 BLAZEY DR | HOUSTON | 77041 | 13723 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 150 | 1110620000025 | CHIMNEY HILL C A INC | 14000 SMOKEY TRAIL DR | HOUSTON | 77041 | 15995 N BARKERS LANDING RD STE 162 | HOUSTON | TX | 77079-2471 |
| 151 | 1123800000014 | LOGAN GEORGE A JR | 13803 BLAZEY DR | HOUSTON | 77041 | 13803 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 152 | 1110620000014 | LOPEZ JESUS | 7414 WOVENWOOD LN | HOUSTON | 77041 | 7414 WOVENWOOD LN | HOUSTON | TX | 77041-1625 |
| 153 | 1123800000013 | MARTINEZ MANUEL G | 13807 BLAZEY DR | HOUSTON | 77041 | 13807 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 154 | 1110620000013 | FAVELA NAOMI & GUSTAVO | 7418 WOVENWOOD LN | HOUSTON | 77041 | 14723 CHAPEL COVE CT | CYPRESS | TX | 77429-8095 |
| 155 | 1123800000012 | CASTILLO SALVADOR & SANJUANA | 13811 BLAZEY DR | HOUSTON | 77041 | 13811 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 156 | 1110620000012 | HILL BRITTANY D | 7419 WOVENWOOD LN | HOUSTON | 77041 | 5010 POPLAR GROVE DR | CHARLOTTE | NC | 28269-0405 |
| 157 | 1123800000011 | GARCIA FATIMA G | 13815 BLAZEY DR | HOUSTON | 77041 | 13815 BLAZEY DR | HOUSTON | TX | 77041-1504 |

CHIMNEY HILL MUD
800 FIRST CITY TOWER
HOUSTON TX 77002

VELASQUEZ PETRA D
13339 BLAZEY DR
HOUSTON TX 77041-1563

BELLO PAULA SALVADOR
13328 FIREBRICK DR
HOUSTON TX 77041-1865

MCKEE WILLIAM R & CAROLINE
13411 BLAZEY DR
HOUSTON TX 77041-1565

T V H LAND CO LP
420 THROCKMORTON ST STE 710
FORT WORTH TX 76102-3724

LOZANO JAVIER
13410 FIREBRICK DR
HOUSTON TX 77041-1713

AYRES NANCY
13427 BLAZEY DR
HOUSTON TX 77041-1565

CHAVEZ JOSE S & ROSAURA G
13422 FIREBRICK DR
HOUSTON TX 77041-1713

HERRERA GENARO & OFELIA
13426 FIREBRICK DR
HOUSTON TX 77041-1713

CAMARGO CYNTHIA GUZMAN
13607 BLAZEY DR
HOUSTON TX 77041-1575

CHIMNEY HILL MUD
PO BOX 1368
FRIENDSWOOD TX 77549-1368

CHIMNEY HILL MUD
800 1ST CITY TOWER
HOUSTON TX 77002-6706

MARTINEZ OMAR & LORENA
13407 BLAZEY DR
HOUSTON TX 77041-1565

PEREZ MARIA
13402 FIREBRICK DR
HOUSTON TX 77041-1713

CRUZ HERDI
13406 FIREBRICK DR
HOUSTON TX 77041-1713

PALOMARES ROLFI
13423 BLAZEY DR
HOUSTON TX 77041-1565

MAI TAI NOODLE HOUSE & GRILLS LLC
9344 JONES RD STE O
HOUSTON TX 77065-5361

DELEON MANUEL
7503 STAMEN DR
HOUSTON TX 77041-1537

CARRIZALES MARCO ANTONIO MADRIGAL
13603 BLAZEY DR
HOUSTON TX 77041-1575

RIVERA RUBEN E
13502 FIREBRICK DR
HOUSTON TX 77041-1715

OCAMPO MIGUEL & ELVIA
13322 FIREBRICK DR
HOUSTON TX 77041-1864

CASTRO NORMA &
13403 BLAZEY DR
HOUSTON TX 77041-1565

GALINDO VICTOR
13330 FIREBRICK DR
HOUSTON TX 77041-1865

MARADIAGA YEFRI L
13415 BLAZEY DR
HOUSTON TX 77041-1565

BARRERA ERASMO
13419 BLAZEY DR
HOUSTON TX 77041-1565

SFR JV 1 2019 1 BORROWER LLC
1508 BROOKHOLLOW DR
SANTA ANA CA 92705-5426

DOWDY MICHAEL W
13431 BLAZEY DR
HOUSTON TX 77041-1565

TVH LAND COMPANY LP
420 THROCKMORTON ST STE 710
FORT WORTH TX 76102-3724

ESTRADA JORGE R
13430 FIREBRICK DR
HOUSTON TX 77041-1713

SALGADO LEONEL
7914 SWAN HOLLOW CT
HOUSTON TX 77041-1255

CUSTODIO ENRIQUE & LETICIA
13506 FIREBRICK DR
HOUSTON TX 77041-1715

CHAVEZ MAURICIO & ISABEL
13619 BLAZEY DR
HOUSTON TX 77041-1575

CRUZ BARTOLO & HERIBERTA
13623 BLAZEY DR
HOUSTON TX 77041-1575

SERNA MARTIN
13602 FIREBRICK DR
HOUSTON TX 77041-1717

HA HUONG NGUYET
13635 BLAZEY DR
HOUSTON TX 77041-1575

FRANKLIN KAREN
13518 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

QUEST TRUST COMPANY
17171 APRK ROW STE 100
HOUSTON TX 77084-

SREY VANTHAN
13715 BLAZEY DR
HOUSTON TX 77041-1506

GUTIERREZ MARIA E
7443 KITE HILL DR
HOUSTON TX 77041-1605

CHIMNEY HILL C A INC
15995 N BARKERS LANDING RD STE 162
HOUSTON TX 77079-2471

DENARD FRED J
13615 BLAZEY DR
HOUSTON TX 77041-1575

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

MOLINA CESAR E
13518 FIREBRICK DR
HOUSTON TX 77041-1715

SCHALIT TRACI J
13631 BLAZEY DR
HOUSTON TX 77041-1575

LOPEZ CLARO G & LAURA J
13610 FIREBRICK DR
HOUSTON TX 77041-1717

MATA PRESCILIANO
13614 FIREBRICK DR
HOUSTON TX 77041-1717

ORTEGA CESAR A
13711 BLAZEY DR
HOUSTON TX 77041-1506

GARCIA ERNESTO & MARIA G
13626 FIREBRICK DR
HOUSTON TX 77041-1717

REYNA JERRY & DIANA
13723 BLAZEY DR
HOUSTON TX 77041-1506

LOGAN GEORGE A JR
13803 BLAZEY DR
HOUSTON TX 77041-1504

FERNANDEZ RAFAEL & ELIA
13510 FIREBRICK DR
HOUSTON TX 77041-1715

CAMPOS ALFONSO
13514 FIREBRICK DR
HOUSTON TX 77041-1715

DELATORRE IGNACIO & DANA
5714 ELDRIDGE GLEN DR
HOUSTON TX 77041-4295

HUNT CHARLES
13606 FIREBRICK DR
HOUSTON TX 77041-1717

MENJIVAR ULISES T
13703 BLAZEY DR
HOUSTON TX 77041-1506

ADDICKS GLYNNDA
2402 QUAIL VALLEY EAST DR
MISSOURI CITY TX 77459-3330

EICHELBERGER GEORGE W JR
13622 FIREBRICK DR
HOUSTON TX 77041-1717

GUTIERREZ CARLOS & MARIA S
13719 BLAZEY DR
HOUSTON TX 77041-1506

BLANCO MARIA T ESTATE OF
13514 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

LOPEZ JESUS
7414 WOVENWOOD LN
HOUSTON TX 77041-1625

MARTINEZ MANUEL G
13807 BLAZEY DR
HOUSTON TX 77041-1504

HILL BRITTANY D
5010 POPLAR GROVE DR
CHARLOTTE NC 28269-0405

MARTINEZ BRIANNA
13506 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

YOUNGBLOOD WILLIAM
7902 INGLE OAK DR
HOUSTON TX 77041-1273

GANZINOTTI ANDREA
13414 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

SALAZAR ART & ORALIA
13402 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

ISLA HOMES LLC
1210 MARCONI ST
HOUSTON TX 77019-4210

P & P GREEN TREE ENTERPRISES LLC
8411 MOSSHANG CT
HOUSTON TX 77040-1553

BANUELOS ERIKA YAZMIN & ERIK
13310 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

RAMIREZ LORENZO
13238 CHIMNEY SWEEP DR
HOUSTON TX 77041-1555

FAVELA NAOMI & GUSTAVO
14723 CHAPEL COVE CT
CYPRESS TX 77429-8095

GARCIA FATIMA G
13815 BLAZEY DR
HOUSTON TX 77041-1504

VACA JOSE
7522 LEMMA DR
HOUSTON TX 77041-1548

CET J PROPERTIES LLC
10823 EVERWOOD LN
HOUSTON TX 77024-5416

MARTINEZ RAUL D
13410 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

VILLALON JUVENTINO
13338 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

GARCIA ANTONIO & MARIA
13326 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

LINARES DULIO A
13318 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

CHOTO ANA
13306 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

HERNANDEZ JUAN C & DELMY L
13234 CHIMNEY SWEEP DR
HOUSTON TX 77041-1555

CASTILLO SALVADOR & SANJUANA
13811 BLAZEY DR
HOUSTON TX 77041-1504

HERRERA JOHN J IV
13510 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

PERALTA RAFAEL M
13426 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

ORTIZ ROQUE & LUCILA
19319 COLONY GROVE LN
KATY TX 77449-7497

GONZALES ANGEL EUGENIO VILLATORO
13406 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

ROMERO LUIS A
13334 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

QUEST TRUST COMPANY
17171 PARK ROW STE 100
HOUSTON TX 77084-4935

UMANZOR JOSE F
13314 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

TORRES MATILDA ESTATE OF
13242 CHIMNEY SWEEP DR
HOUSTON TX 77041-1555

TVH LAND COMPANY LP
420 THROCKMORTON ST STE 710
FORT WORTH TX 76102-3724

POPOOLA OLADELE & OLAYINKA
13607 SHORT BROOK LN
HOUSTON TX 77041-1280

GARCIA EMILIO & LORENA
13224 CHIMNEY SWEEP DR
HOUSTON TX 77041-1552

NOYOLA MARISELA
7630 LEMMA DR
HOUSTON TX 77041-1550

US SFE ASSET COMPANY 1 LLC
5001 PLAZA ON THE LK STE 200
AUSTIN TX 78746-1053

RAMIREZ JUANITA
7627 BROOKLEAF DR
HOUSTON TX 77041-1830

LARRAZABAL ELIZABETH
1378 COUNTRY PLACE DR
HOUSTON TX 77079-3126

MORALES JOSE J
7615 BROOKLEAF DR
HOUSTON TX 77041-1830

RODRIGUEZ MICHELLE
7602 LEMMA DR
HOUSTON TX 77041-1550

JONES CALE A
7546 LEMMA DR
HOUSTON TX 77041-1548

DAO PETER
7527 BROOKLEAF DR
HOUSTON TX 77041-1828

PEACO PAMELA R
15119 HOWLAND ST
HOUSTON TX 77084-2031

CLARK IKE
7634 LEMMA DR
HOUSTON TX 77041-1550

NOYOLA SAUL & MARTA M
7635 BROOKLEAF DR
HOUSTON TX 77041-1830

PFIRMAN RICHARD L
2611 CYPRESS CREEK PKWY STE A102
HOUSTON TX 77068-3730

MIRELES DAVID
7618 LEMMA DR
HOUSTON TX 77041-1550

CISNEROS JUAN A
7619 BROOKLEAF DR
HOUSTON TX 77041-1830

ESPARZA ARTURO S
7606 LEMMA DR
HOUSTON TX 77041-1550

TRAN HARRIS
13615 SHORT BROOK LN
HOUSTON TX 77041-1280

BROCKETT CHRISTOPHER
7603 BROOKLEAF DR
HOUSTON TX 77041-1830

HAMILTON REAL ESTATE INVESTMENTS LLC
18002 BLUES POINT DR
CYPRESS TX 77429-7600

ALROUSAN QASSEM WAEL
13226 CHIMNEY SWEEP DR
HOUSTON TX 77041-1552

JANDRES BERNARDINA
7639 BROOKLEAF DR
HOUSTON TX 77041-1830

LANDAVERDE JULIO
7626 LEMMA DR
HOUSTON TX 77041-1550

ALSOULIMAN ABEER
13618 BIRCH CANYON CT
HOUSTON TX 77041-1264

PULDO FELICIANO
7623 BROOKLEAF DR
HOUSTON TX 77041-1830

KUSKO DAVID J & REBECCA &
18303 W LITTLE YORK RD
KATY TX 77449-5761

SALGADO GUADALUPE
7611 BROOKLEAF DR
HOUSTON TX 77041-1830

FARLEY JOHN L
7607 BROOKLEAF DR
HOUSTON TX 77041-1830

GONZALEZ JOSE GUADALUPE VEGA
7542 LEMMA DR
HOUSTON TX 77041-1548

OJEDA BLANCA
7523 BROOKLEAF DR
HOUSTON TX 77041-1828

DIAZ YUDY
6610 JACKWOOD ST
HOUSTON TX 77074-7126

LEE TIN
7834 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1287

NAVA MARIA L
7517 BROOKLEAF DR
HOUSTON TX 77041-1848

MORALES JORGE
7127 WILLOW BRIDGE CIR
HOUSTON TX 77095-3233

WEBBER CARL & KATHERINE
205 S MAIN ST
PALMYRA MO 63461-1649

BRUNO FRANK J & JERI L
7507 BROOKLEAF DR
HOUSTON TX 77041-1848

CHIMNEY HILL COMMUNITY ASSOCIATION INC
15995 N BARKERS LANDING RD STE 162

CHIMNEY HILL IV V VI CIA
1400 BROADFIELD BLVD STE 600
HOUSTON TX 77084-5133

CANTU TAMMY
13315 BLAZEY DR
HOUSTON TX 77041-1563

ARCOS YENI M
13319 BLAZEY DR
HOUSTON TX 77041-1563

LOPEZ MIGUEL V & MARIA F
7521 BROOKLEAF DR
HOUSTON TX 77041-1848

CAMCHO ISMAEL BANDA
7519 BROOKLEAF DR
HOUSTON TX 77041-1848

VACA JOSE C & ROSA M
7522 LEMMA DR
HOUSTON TX 77041-1548

GRUPA LINDA KAY
7513 BROOKLEAF DR
HOUSTON TX 77041-1848

MILLIGAN RHONDA SUE
7510 LEMMA DR
HOUSTON TX 77041-1548

SINGH LAL & PARAMJEET
14715 ENGLEBROOK DR
HOUSTON TX 77095-3058

VASQUEZ TOMASA M
7427 BROOKLEAF DR
HOUSTON TX 77041-1827

VILTRES ALEXANDER
13311 BLAZEY DR
HOUSTON TX 77041-1563

SUH JUNG K
7826 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1287

MUNOZ ELIAS & YOLANDA
13314 FIREBRICK DR
HOUSTON TX 77041-1864

RODRIGUEZ JOMAG M
7530 LEMMA DR
HOUSTON TX 77041-1548

VACA JOSE C
7522 LEMMA DR
HOUSTON TX 77041-1548

MALONE MICHAEL
7515 BROOKLEAF DR
HOUSTON TX 77041-1848

BALLARD REVOCABLE TRUST
16506 DUNLEITH CIR
CYPRESS TX 77429-4832

BACHAND MARK R
7830 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1287

SALGADO JUAN U
13146 PEBBLEWALK CIR NORTH
HOUSTON TX 77041-1823

MENDOZA MIGUEL
13307 BLAZEY DR
HOUSTON TX 77041-1563

CHIMNEY HILL MUD
800 FIRST CITY TOWER
HOUSTON TX 77002-

NGO TAI VAN
13312 FIREBRICK DR
HOUSTON TX 77041-1864

ALVAREZ MAXIMILIANO & REYNA
13323 BLAZEY DR
HOUSTON TX 77041-1563

GAZI EMRAN H
15703 PARK CENTER WAY
HOUSTON TX 77059-4051

SAVORY REBECA E
16902 KILWINNING DR
HOUSTON TX 77084-1842

DIAZ JEORGE
5018 SCHULER ST
HOUSTON TX 77007-3352

ALAMILLO MYRIAM
13327 BLAZEY DR
HOUSTON TX 77041-1563

NINO JUAN CARLOS M
13320 FIREBRICK DR
HOUSTON TX 77041-1864

ROBLES DARIO
13318 FIREBRICK DR
HOUSTON TX 77041-1864

SALGADO MARIA F
13335 BLAZEY DR
HOUSTON TX 77041-1563

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 19

## ORIGINAL PHOTOGRAPHS

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**


PHOTO 2
PHOTO 1
Chimney Sweep Dr
Chimney Sweep Dr
Google Earth
Image © 2025 Vexcel Imaging US, Inc.
N
500 ft



PHOTO 1



PHOTO 2

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 20

## SPIF

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

**TCEQ USE ONLY:**

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

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

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

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

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

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

The following applies to all applications:

1. Permittee: Chimney Hill Municipal Utility District

   Permit No. WQ00 12304-001 EPA ID No. TX 0085588

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

   13450 Traders Village Drive in Harris County, Texas 77041

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 Liu

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

Title: Project Manager

Mailing Address: 10377 Stella Link Dr.

City, State, Zip Code: Houston, TX 77025

Phone No.: 713-942-2700 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: jdl@as-engineers.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.

   Click here to enter text.

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 Ditch U106-05-00, thence to Horsepen Creek, thence to Langham Creek, thence to Bear Creek, thence to South Mayde Creek, thence to Buffalo Bayou Above Tidal in Segment No. 1014 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

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

Click here to enter text.

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

Click here to enter text.

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

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

The original WWTP was constructed in 1991 with an expansion in 2002.

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

The wastewater treatment plant was constructed to serve the Chimney Hill MUD. The original construction and following expansions have been designed by multiple engineering firms, including Georgia Wilson, Inc. and A&S Engineers.

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 21

## WER STUDY

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

January 17, 2025

# LABORATORY REPORT

Anna M. Hunter, E.I.T.
A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025-5445

Report ID: 20250117172946MAM

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,



Matt Matthews
NPDES Project Manager

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025-5445

**Reported:**
01/17/2025 17:29

## Work Order Case Narrative

NWDLS Job No: 24G1018, 24H3618, 24H3697, 24H3899, 24H4252, 24J0987, 24J0988, 24J1015, 24J1570, 24J1814
TPDES Permit No: WQ0012304001
Project: A&S Eng., Inc.- Chimney Hill MUD
Sample Locations: Outfall 001, Receiving Water Stream

Enclosed is the NWDLS report and supporting records for Copper Water Effect Ratio (WER) testing events in August and October 2024. The WER development and interpretation procedures described in the Streamlined Procedure were followed for field sampling, laboratory analyses, and data interpretation.

For your convenience, included are the appropriate documentation for sample collections, testing, chemical and statistical analysis as required by your permit for this Copper WER Study.

**Work Order Case Narrative**

**Work Order Case Narrative**

**Work Order Case Narrative**

**Work Order Case Narrative**

**Work Order Case Narrative**

**Work Order Case Narrative**

**Work Order Case Narrative**

**Work Order Case Narrative**

* 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-C24-00185

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025-5445

**Reported:**
01/17/2025 17:29

## Work Order Case Narrative

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

Toxicology Laboratory & Mailing Address
130 S. Trade Center Pkwy., Ste 100
Conroe, Texas 77385
toxlab@nwdls.com · email
(936) 321-6060 · office

# COPPER WATER-EFFECT RATIO STUDIES – OUTFALL 001

## Chimney Hill Municipal Utility District (SIC 4952)

## TPDES Permit No. WQ0012304001

## (EPA ID No. TX0085588)

**Prepared for:**

**A&S Engineers, Inc.**

**10377 Stella Link Road, Houston, TX 77025-5445**

**Prepared by:**

**North Water District Laboratory Services, Inc. (NWDLS)**

**130 S. Trade Center Pkwy.**

**Conroe, TX 77385**

**January 17, 2025**

## 1.0 Introduction

The Texas Commission on Environmental Quality (TCEQ) has proposed surface water quality criteria-based permit limits for copper of 0.016 mg/L daily average and 0.034 mg/L daily maximum in the TPDES permit for the Chimney Hill Municipal Utility District (CHMUD) wastewater treatment facility (Permit No. WQ0012304001; EPA ID No. TX0085588). Based on multiple analyses of the plant effluent, CHMUD believes that the existing copper concentrations may result in discharges that will exceed the water quality-based permit limits.

CHMUD is currently evaluating potential sources of copper in its effluent, however CHMUD is not familiar with any treatment or pollution prevention technology that can assure compliance with the very low water quality-based permit limits. Therefore, CHMUD proposes to conduct a site-specific standards study to determine if the copper criterion used to establish these permit limits is appropriate and necessary to protect indigenous aquatic life in Horsepen Creek, Langham Creek, Bear Creek, South Mayde Creek and Buffalo Bayou Above Tidal (Segment No. 1014 of the San Jacinto River Basin).

A work plan was prepared for CHMUD and A&S Engineers, Inc. by North Water District Laboratory Services, Inc. (NWDLS) of Houston, TX. NWDLS was also contracted to perform the WER testing reported herein. The WER studies were performed in accordance with the Streamlined Water-Effect Ration Procedure for Discharges of Copper, EPA 822-R-01-005 (the Streamlined Procedure) and the project work plan.

This report presents the results of acute bioassays with the water-flea, *Ceriodaphnia dubia*, performed August 22-24, 2024, (Study 1) and October 4-6, 2024 (Study 2) using a 100% effluent [referenced as simulated downstream water (SD)] and moderately hard reconstituted freshwater (LW) containing additions of copper. The median lethal concentrations ($LC_{50}$) were determined for each metal exposure and used for calculation of the WERs.

## 2.0 Materials and Methods

The bioassays were conducted in accordance with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA 821-R-02-012, October 2002 (Acute Manual). The water-flea tests were 48-hr duration, static bioassays. The test organisms were cultured at the NWDLS Laboratory following general guidelines presented in the Acute Manual. The test organisms were fed a mixture of YCT[1] and Selenastrum[2] for a minimum of two hours prior to test initiation. A photoperiod of 16 hours light and 8 hours dark and temperature of 25 ±1℃ were maintained during the tests.

For each of the study events reported herein, Chimney Hill MUD personnel collected the composite effluent sample. NWDLS personnel also collected a (~20-L) receiving water grab sample at Horsepen Creek Trail crossing, on Huffmeister Rd., approximately110 feet north of FM 529 (Spencer Rd.), upstream of the CHMUD Outfall facility discharge. For both sampling events, the effluent and receiving water samples were poured into a new cubitainer, placed on ice in an insulated cooler, and transported to the lab by a NWDLS field tech.

In the lab, an aliquot of the effluent (SD) was warmed to ambient temperature before being used in the tests. Moderately hard freshwater was used as the primary control and as the medium for lab water (LW) tests as described in the Acute Manual using deionized tap water and reagent-grade mineral salts.

Samples of effluent, receiving water, and lab water were analyzed by NWDLS to establish baseline water quality characteristics: alkalinity, hardness, total and dissolved organic carbon (TOC, DOC), total dissolved and suspended solids (TDS, TSS), ammonia-N, sodium, potassium, calcium, magnesium, chloride, sulfate, as well as total and dissolved copper.

1 YCT is a mixture of yeast, Cerophyl, and fermented trout-chow, prepared as described in the Acute Manual.
2 *Selenastrum capricornutum* (aka *Pseudokirchneriella subcapitatum*), a single-celled green algae.

A copper stock solution (6.19 mg Cu/L) was prepared by dissolving 22.693 g Cupric nitrate, [Spectrum, Lot #2NE0107] in 1000 mL of deionized water. Copper-spiked preliminary test solutions were prepared by adding the copper stock solution into LW or SD media, as summarized below.

| Study No. | Aqueous media (vol) | Copper Stock Solution (µL) | Final concentration (µg/L) |
|---|---|---|---|
| 1 | LW (2 L) | 40 | 124 |
| | SD (2 L) | 60 | 186 |
| 2 | LW (2 L) | 20 | 62 |
| | SD (2 L) | 60 | 186 |

Test solutions were prepared by diluting carefully measured volumes of the copper-spiked LW or SD solution with non-spiked LW or SD media. As summarized below, nine concentrations in a 70% dilution series (Study 1) or a 75% dilution series (Study 2) were used in the toxicity tests. Both studies included "negative controls," ie., non-spiked LW or SD media.

| Study No. | Control | Nominal Concentrations (µg/L) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LW | 7 | 10 | 15 | 21 | 30 | 42 | 61 | 87 | 124 |
| | SD | 11 | 15 | 22 | 31 | 45 | 64 | 91 | 130 | 186 |
| 2 | LW | 6 | 8 | 11 | 15 | 20 | 26 | 35 | 46 | 62 |
| | SD | 19 | 25 | 33 | 44 | 59 | 78 | 104 | 139 | 186 |

In each bioassay, test treatments consisted of fifty neonate, *Ceriodaphnia dubia* organisms, arrayed in five replicates with 10 organisms per replicate. Each replicate treatment contained ~50 mL of test or control solution in a ~155 mL disposable plastic cup. While conductivity was measured during test initiation, the remaining parameters of dissolved oxygen (DO), pH, and temperature were measured for each test concentration at the beginning and at the end of the tests. Mortality was monitored at 24-hr intervals during the tests. Death was defined as the absence of movement.

Samples of the non-spiked control media and copper-spiked test media were collected at the beginning and end (the latter, from a composite of the five replicate samples at each treatment group) of the bioassays. Approximately 100 mL of each test concentration was poured into a clean, polyethylene bottle containing high-purity nitric acid. A second, ~100 mL aliquot of each test solution was reserved and later filtered using a 0.45 µM cartridge filter fitted to a disposable syringe. After the toxicity tests were completed, samples representing the effects range[1] from each test were analyzed for total and dissolved copper by inductively-coupled plasma mass spectrometry (ICP-MS, EPA Method 200.8).

Calculations of median lethal concentrations ($LC_{50}$) were performed using the Spearman-Karber (SK) method, the Maximum Likelihood Estimation (MLS) Linear Regression method (Probit), and the Linear Interpolation method (ICPIN) as implemented in CETIS[2]. Water-effect ratios (WER) were calculated by dividing the hardness-normalized $LC_{50}$[3] determined for simulated downstream (SD) water by the greater of the published species mean acute value (SMAV) or the hardness-normalized $LC_{50}$ calculated for laboratory water (LW).

1 The "effects range" included the control group and all test concentrations where partial or complete mortality was observed. Additional test concentrations above the lowest level that caused complete mortality were not analyzed.

2 CETIS, *Comprehensive Environmental Toxicity Information System*. V.1.9.4, Tidepool Scientific, LLC. Mckinleyville, CA.

3 Normalized to standard hardness (100 mg/L as $CaCO_3$), as follows:

$LC50_{(Std\ Hdns)} = LC50_{(Sample\ Hdns)}\ C(Std\ Hdns \div Sample\ Hdns)^{0.9422}$

## 3.0 RESULTS

### 3.1 WER STUDY #1

#### 3.1.1 Precipitation & Daily Discharge

Measurable precipitation was recorded 8 times during the 30-day period prior to sample collection on August 22, 2024 (Table 1). Although the maximum daily precipitation during this period (0.94 in.) occurred about four weeks prior to sample collection, a 0.41 in rainfall event was recorded 2.5 weeks before sample collection.

The average discharge rate via Outfall 001 for the 30-day period prior to sample collection was 418258.1 GPD (Table 1). There was no apparent correlation between rainfall events and discharge from the CHMUD facility.

#### 3.1.2 Water Chemistry Characteristics

The chemical characteristics of receiving water (RW), the Outfall 001 effluent (SD), and the laboratory water (LW) are summarized in Table 3. The laboratory control water (LW) met the minimum requirements for TOC (<5 mg/L) and TSS (<5 mg/L).

Total and dissolved copper concentrations measured in selected[4] test solutions taken at the beginning and end of the acute toxicity tests are presented in Tables 4 and 5. Average concentrations given in Tables 4 and 5 are time-weighted averages (TWAs) based on the 0-hr and 48-hr total or dissolved copper data. The TWAs were used for determining $LC_{50}$s.

#### 3.1.3 Test Organism Response

Survival results for the *C. dubia* bioassays are summarized in (WER #1) Tables 4 and 5. Control survival after 48 hours exposure was 100% in the non-spiked LW medium and in the non-spiked SD medium; both values met the test acceptance criterion (>90%).

Survival of water fleas exposed to copper-spiked lab water (LW) ranged from 98% to zero-percent in the seven highest concentrations (Table 4). A concentration-related dose response was present, and a median lethal concentration (LC50) could be determined by the Spearman-Karber and Linear Interpolation method (ICPIN) methods. Hardness-normalized LC50 values were less than the SMAV (24.00 µg total copper or 22.11 µg dissolved copper) for *D. pulex*, thus the SMAVs were used to calculate water-effect ratio values.

Survival of water fleas exposed to copper-spiked simulated downstream water (SD) ranged from 100% to 0% in the concentrations (Table 5). A concentration-related dose response was present, allowing estimation of a median lethal concentration (LC50) by the Spearman-Karber and Linear Interpolation (ICPIN) methods.

#### 3.1.4 Water-Effect Ratio Determination

The LC50 values were normalized to standard hardness (100 mg/L as $CaCO_3$) using hardness values calculated from calcium and magnesium concentrations. Next, copper WER estimates were derived by dividing the hardness-normalized LC50 by the species mean acute value (24.00 µg total Cu/L or 22.11 µg dissolved Cu/L) at standard hardness (100 mg/L), as shown.

4 Samples from treatments with responses above or below the effects range (i.e., where complete mortality or complete survival was observed in more than two consecutive treatments) were not analyzed.

| Medium | Hardness | Method | Copper | $LC50_{amb}$ | $LC50_{100}$ | $WER_{100}$ |
|---|---|---|---|---|---|---|
| LW | 106.0 | TSK | Dissolved | 18.58 | 17.59 | |
| | | | Total | 20.12 | 19.05 | |
| SD | 124.0 | TSK | Dissolved | 134.00 | 109.42 | 4.9487 |
| | | | Total | 159.70 | 130.40 | 5.4334 |
| LW | 106.0 | ICPIN | Dissolved | 18.20 | 17.23 | |
| | | | Total | 18.50 | 17.51 | |
| SD | 124.0 | ICPIN | Dissolved | 131.10 | 107.05 | 4.8416 |
| | | | Total | 155.50 | 126.97 | 5.2905 |
| LW | 106.0 | Probit | Dissolved | 31.68 | 29.99 | |
| | | | Total | 40.02 | 37.88 | |
| SD | 124.0 | Probit | Dissolved | NC | - | - |
| | | | Total | NC | - | - |

NC = not calculated; data did not meet requirements for Probit method

## 3.2 WER STUDY #2

### 3.2.1 Precipitation & Daily Discharge

Measurable precipitation was recorded on 8 days during the 30-day period prior to sample collection on September 02, 2024 (Table 2). The maximum daily precipitation during this period (0.64 in.) occurred about 4 weeks before sample collection.

The average discharge rate via Outfall 001 for the 30-day period prior to sample collection was 391516.1 GPD (Table 2). There was no apparent correlation between rainfall events and discharge from the CH MUD facility.

### 3.2.2 Water Chemistry Characteristics

The chemical characteristics of the Outfall 001 effluent (SD) and the laboratory water (LW) are summarized in Table 3. The laboratory control water (LW) met the minimum requirements for TOC (<5 mg/L) and TSS (<5 mg/L).

Total copper concentrations measured in selected[5] test solutions taken at the beginning and end of the acute toxicity tests are presented in Tables 6 and 7. Average concentrations given in Tables 6 and 7 are time-weighted averages (TWAs) based on the 0-hr and 48-hr total or dissolved copper data. The TWAs were used for determining $LC_{50}$s.

### 3.2.3 Test Organism Response

Survival results for the *C. dubia* bioassays are summarized in Tables 6 and 7. Control survival after 48 hours exposure was 100% in the non-spiked LW medium and in the non-spiked SD medium; both survival values met the test acceptance criterion (>90%).

Survival in the copper-spiked LW test media ranged from 100% in the lowest test concentration to 10% in the highest concentration. Hardness-normalized LC50 values were less than the SMAV (24.00 µg total copper or 22.11 µg dissolved copper) for *C. dubia*, thus the SMAVs were used to calculate water-effect ratio values.

Survival of water fleas exposed to copper-spiked simulated downstream water (SD) ranged from 100% to 48% in the highest concentration. A concentration-related dose response was present, allowing estimation of a median lethal concentration (LC50) by each of the two statistical methods.

5 Samples from treatments with responses above or below the effects range (i.e., where complete mortality or complete survival was observed in more than two consecutive treatments) were not analyzed.

### 3.2.4 Water-Effect Ratio Determination

The LC50 values were normalized to standard hardness (100 mg/L as $CaCO_3$) using hardness values calculated from calcium and magnesium concentrations. Next, copper WER estimates were derived by dividing the hardness-normalized LC50 by the species mean acute value (24.00 µg total Cu/L or 22.11 µg dissolved Cu/L) at standard hardness (100 mg/L), as shown.

| Medium | Hardness | Method | Copper | $LC50_{amb}$ | $LC50_{100}$ | $WER_{100}$ |
|---|---|---|---|---|---|---|
| LW | 81.7 | TSK | Dissolved | 31.95 | 38.65 | |
| | | | Total | 40.28 | 48.73 | |
| SD | 107.0 | TSK | Dissolved | 157.20 | 147.49 | 3.8159 |
| | | | Total | 190.50 | 178.73 | 3.6679 |
| LW | 81.7 | ICPIN | Dissolved | 31.98 | 38.69 | |
| | | | Total | 39.37 | 47.63 | |
| SD | 107.0 | ICPIN | Dissolved | 157.50 | 147.77 | 3.8196 |
| | | | Total | 191.00 | 179.20 | 3.7625 |
| LW | 81.7 | Probit | Dissolved | 18.16 | 21.97 | |
| | | | Total | 18.50 | 22.38 | |
| SD | 107.0 | Probit | Dissolved | 129.80 | 121.78 | 5.5081 |
| | | | Total | 153.80 | 144.30 | 6.0126 |

## 4.0 GEOMETRIC MEAN WATER-EFFECT RATIO

The geometric mean was calculated for total and dissolved copper WER estimates, as summarized below. Note: WER value derived by the Probit method for the 2nd study is not included because there was no comparable value determined for the 1st study.

| Copper | Method | CuWER1 | CuWER2 | Geomean |
|---|---|---|---|---|
| Total | SK | 5.4334 | 3.6679 | 4.4642 |
| | ICPIN | 5.2905 | 3.7625 | 4.4616 |
| Dissolved | SK | 4.9487 | 3.8159 | 4.3455 |
| | ICPIN | 4.8416 | 3.8196 | 4.3003 |

Although all methods provided useful estimates, the mean WER values determined by the ICPIN method may be preferable.

## 5.0 REFERENCE TOXICANT DATA

Reference toxicant tests are conducted once per month with organisms produced from cultures at the NWDLS laboratory. Usually, these tests are conducted during the first week of a calendar month and serve to document the suitability of the organisms for use in toxicity tests during the relevant period. A summary of twenty-one, consecutive 48-hr reference toxicant tests, illustrating the response (LC50) of water-fleas exposed to copper prior to the WER tests is included in this report.

Table 1. Precipitation and CH MUD mean discharge during the 30-day period prior to effluent sample collection (WER Study #1)

| Date | Flow GPD | Rain Fall (inches) |
|---|---|---|
| 7/20/2024 | 482000 | 0.00 |
| 7/21/2024 | 471000 | 0.00 |
| 7/22/2024 | 133000 | 0.00 |
| 7/23/2024 | 368000 | 0.49 |
| 7/24/2024 | 369000 | 0.93 |
| 7/25/2024 | 343000 | 0.17 |
| 7/26/2024 | 693000 | 0.70 |
| 7/27/2024 | 689000 | 0.94 |
| 7/28/2024 | 462000 | 0.31 |
| 7/29/2024 | 472000 | 0.54 |
| 7/30/2024 | 419000 | 0.00 |
| 7/31/2024 | 382000 | 0.00 |
| 8/1/2024 | 343000 | 0.00 |
| 8/2/2024 | 367000 | 0.00 |
| 8/3/2024 | 524000 | 0.00 |
| 8/4/2024 | 121000 | 0.41 |
| 8/5/2024 | 462000 | 0.00 |
| 8/6/2024 | 359000 | 0.00 |
| 8/7/2024 | 385000 | 0.00 |
| 8/8/2024 | 351000 | 0.00 |
| 8/9/2024 | 380000 | 0.00 |
| 8/10/2024 | 372000 | 0.00 |
| 8/11/2024 | 395000 | 0.00 |
| 8/12/2024 | 447000 | 0.00 |
| 8/13/2024 | 767000 | 0.00 |
| 8/14/2024 | 418000 | 0.00 |
| 8/15/2024 | 370000 | 0.00 |
| 8/16/2024 | 414000 | 0.00 |
| 8/17/2024 | 462000 | 0.00 |
| 8/18/2024 | 360000 | 0.00 |
| **8/19/2024** | 386000 | 0.00 |
| Mean | 418258.1 | 0.145 |
| Max. | 767000 | 0.94 |
| Min. | 121000 | 0 |

Table 2. Precipitation and CH MUD mean discharge during the 30-day period prior to effluent sample collection (WER Study #2)

| Date | Flow GPD | Rain Fall (inches) |
|---|---|---|
| 9/2/2024 | 468000 | 0.57 |
| 9/3/2024 | 361000 | 0.00 |
| 9/4/2024 | 378000 | 0.00 |
| 9/5/2024 | 499000 | 0.38 |
| 9/6/2024 | 488000 | 0.63 |
| 9/7/2024 | 322000 | 0.64 |
| 9/8/2024 | 316000 | 0.00 |
| 9/9/2024 | 439000 | 0.00 |
| 9/10/2024 | 324000 | 0.00 |
| 9/11/2024 | 355000 | 0.00 |
| 9/12/2024 | 417000 | 0.10 |
| 9/13/2024 | 343000 | 0.01 |
| 9/14/2024 | 475000 | 0.00 |
| 9/15/2024 | 371000 | 0.00 |
| 9/16/2024 | 332000 | 0.00 |
| 9/17/2024 | 370000 | 0.00 |
| 9/18/2024 | 352000 | 0.00 |
| 9/19/2024 | 329000 | 0.00 |
| 9/20/2024 | 458000 | 0.00 |
| 9/21/2024 | 341000 | 0.00 |
| 9/22/2024 | 398000 | 0.00 |
| 9/23/2024 | 466000 | 0.00 |
| 9/24/2024 | 374000 | 0.00 |
| 9/25/2024 | 412000 | 0.20 |
| 9/26/2024 | 360000 | 0.00 |
| 9/27/2024 | 406000 | 0.00 |
| 9/28/2024 | 295000 | 0.00 |
| 9/29/2024 | 444000 | 0.00 |
| 9/30/2024 | 467000 | 0.00 |
| 10/01/2024 | 383000 | 0.00 |
| **10/02/2024** | 394000 | 0.00 |
| Mean | 391516.1 | 0.082 |
| Max. | 499000 | 0.63 |
| Min. | 295000 | 0 |

Table 3. Chemical characteristics of receiving-stream water (RW), Chimney Hill MUD effluent (OF-001), and reconstituted synthetic laboratory water (LW)

| Chemical Analyses | Units | RW Study #1 | OF-001 (SD) Study #1 | LW Study #1 | RW Study #2 | OF-001 (SD) Study #2 | LW Study #2 |
|---|---|---|---|---|---|---|---|
| Total hardness as CaCO3 | mg/L | 154 | 124 | 106 | 112 | 107 | 81.7 |
| Calcium | mg/L | 48.9 | 40.4 | 17.2 | 34.4 | 33.2 | 13.9 |
| Copper (Total) | mg/L | <0.100 | <0.100 | <0.00200 | 0.00519 | 0.00443 | <0.00200 |
| Magnesium | mg/L | 7.77 | 5.53 | 15.3 | 6.45 | 5.97 | 11.4 |
| Potassium | mg/L | 15.1 | 18.0 | 2.57 | 12.1 | 15.4 | 1.98 |
| Sodium | mg/L | 102 | 95.8 | 28.1 | 95.7 | 101 | 26.7 |
| Copper (Dissolved) | mg/L | 0.00518 | 0.00547 | <0.00200 | 0.00468 | 0.00443 | <0.00250 |
| Chloride | mg/L | 110 | 101 | 2.15 | 108 | 99.2 | 1.96 |
| Conductivity | umhos/cm | 799 | 846 | 350 | 874 | 796 | 312 |
| Dissolved Organic Carbon | mg/L | --- | --- | -- | -- | 7.58 | 1.09 |
| Alkalinity as CaCO3 | mg/L | 136 | 56.6 | 71.5 | 191 | 62.9 | 69.9 |
| Ammonia as N | mg/L | 0.536 | 0.0630 | <0.0400 | 0.0960 | 0.0880 | <0.0400 |
| Residue-nonfilterable (TSS) | mg/L | 72.5 | 2.74 | <1.00 | 93.3 | 5.05 | <1.00 |
| Salinity | SU | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| Sulfate | mg/L | 38.7 | 69.0 | 321 | 36.4 | 60.0 | 82.2 |
| Residue-filterable (TDS) | mg/L | 424 | 482 | 212 | 605 | 496 | 200 |
| Total Organic Carbon (TOC) | mg/L | --- | --- | --- | 6.99 | 8.54 | <1.00 |
| DO Field | mg/L | 8.33 FM | 8.28 FM | 8.44 LM | 9.68 FM | 8.18 FM | 8.38 LM |
| Temperature °C Field | °C | 31.1 FM | 36.3 FM | 25.0 LM | 21.9 FM | 26.0 FM | 24.4 LM |
| Total Residual Chlorine | mg/L | 0.14 FM | 0.04 FM | <0.25 LM | <0.25 FM | <0.25 FM | <0.25 LM |
| pH | pH | 7.55 FM | 8.15 FM | 7.36 LM | 8.09 FM | 7.39 FM | 7.72 LM |

LM Laboratory Measurement
FM Field Measurement

Table 4. *Ceriodaphnia dubia* survival and total, dissolved and time-weighted average (TWA) copper concentrations in a 48-hr acute toxicity test of copper-spiked reconstituted laboratory water (LW) (WER Study #1)

| Test Treatment | Survival (%) | Total Cu (µg/L) | | | Dissolved Cu (µg/L) | | |
|---|---|---|---|---|---|---|---|
| Nominal | | 0h | 48h | TWA | 0h | 48h | TWA |
| Control | 100 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 7 | 98 | 18.6 | 14.7 | 16.6 | 14.0 | 14.1 | 14.0 |
| 10 | 50 | 19.1 | 17.9 | 18.5 | 18.9 | 17.6 | 18.2 |
| 15 | 0 | 27.6 | 31.2 | 29.4 | 25.9 | 26.3 | 26.1 |
| 21 | 0 | 45.7 | 41.7 | 43.7 | - | 35.1 | - |
| 30 | 0 | - | - | - | - | - | - |
| 42 | 0 | - | - | - | - | - | - |
| 61 | 0 | - | - | - | - | - | - |
| 87 | 0 | - | - | - | - | - | - |
| 124 | 0 | - | - | - | - | - | - |
| 48-hr LC50 (SK) | | | | 20.12 | | | 18.58 |
| 48-hr LC50 (ICPIN) | | | | 18.50 | | | 18.20 |

"–" = copper concentration not determined; concentration not included in LC50 determinations

Table 5. *Ceriodaphnia dubia* survival and total, dissolved and time-weighted average (TWA) copper concentrations in a 48-hr acute toxicity test of copper-spiked simulated downstream (SD) water (WER Study #1)

| Test Treatment | Survival (%) | Total Cu (µg/L) | | | Dissolved Cu (µg/L) | | |
|---|---|---|---|---|---|---|---|
| Nominal | | 0h | 48h | TWA | 0h | 48h | TWA |
| Control | 94 | 6.9 | 7.5 | 7.22 | 6.1 | 7.2 | 6.64 |
| 11 | 80 | 32.2 | 22.3 | 27.2 | 27.8 | 24.4 | 26.1 |
| 15 | 92 | 32.5 | 29.2 | 30.8 | 27.4 | 24.5 | 26.0 |
| 22 | 98 | 42.3 | 39.8 | 41.0 | 38.6 | 34.0 | 36.3 |
| 31 | 100 | 63.1 | 53.3 | 58.2 | 44.4 | 43.6 | 44.0 |
| 45 | 98 | 75.6 | 74.3 | 75.0 | 70.5 | 59.6 | 65.0 |
| 64 | 98 | 105.0 | 99.8 | 102.4 | 89.1 | 84.2 | 86.6 |
| 91 | 48 | 153.0 | 154.0 | 153.5 | 142.0 | 117.0 | 129.5 |
| 130 | 0 | 278.0 | 252.0 | 265.0 | 264.0 | 173.0 | 218.5 |
| 186 | 0 | - | - | - | - | - | - |
| 48-hr LC50 (SK) | | | | 159.70 | | | 134.00 |
| 48-hr LC50 (ICPIN) | | | | 155.50 | | | 131.10 |

"–" = copper concentration not determined; concentration not included in LC50 determinations

Table 6. *Ceriodaphnia dubia* survival and total, dissolved and time-weighted average (TWA) copper concentrations in a 48-hr acute toxicity test of copper-spiked reconstituted laboratory water (LW) (WER Study #2)

| Test Treatment | Survival (%) | Total Cu (µg/L) | | | Dissolved Cu (µg/L) | | |
|---|---|---|---|---|---|---|---|
| Nominal | | 0h | 48h | TWA | 0h | 48h | TWA |
| Control | 100 | 2.0 | 2.5 | 2.2 | 2.0 | 2.0 | 2.0 |
| 6 | 98 | 6.6 | 4.6 | 5.6 | 5.5 | 4.5 | 5.0 |
| 8 | 100 | 7.4 | 5.8 | 6.6 | 7.3 | 4.9 | 6.1 |
| 11 | 96 | 11.5 | 8.1 | 9.8 | 9.2 | 7.4 | 8.3 |
| 15 | 100 | 14.8 | 11.1 | 13.0 | 12.5 | 8.4 | 10.4 |
| 20 | 100 | 18.9 | 12.9 | 15.9 | 17.0 | 10.1 | 13.6 |
| 26 | 82 | 27.8 | 22.5 | 25.2 | 21.7 | 18.2 | 20.0 |
| 35 | 96 | 36.7 | 27.7 | 32.2 | 28.0 | 20.0 | 24.0 |
| 46 | 46 | 44.7 | 35.4 | 40.1 | 38.7 | 26.8 | 32.8 |
| 62 | 10 | 61.3 | 47.9 | 54.6 | 50.6 | 36.5 | 43.6 |
| 48-hr LC50 (SK) | | | | 40.28 | | | 31.95 |
| 48-hr LC50 (ICPIN) | | | | 39.37 | | | 31.98 |

Table 7. *Ceriodaphnia dubia* survival and total, dissolved and time-weighted average (TWA) copper concentrations in a 48-hr acute toxicity test of copper-spiked simulated downstream (SD) water (WER Study #2)

| Test Treatment | Survival (%) | Total Cu (µg/L) | | | Dissolved Cu (µg/L) | | |
|---|---|---|---|---|---|---|---|
| Nominal | | 0h | 48h | TWA | 0h | 48h | TWA |
| Control | 100 | 6.3 | 6.2 | 6.3 | 7.1 | 5.8 | 6.4 |
| 19 | 100 | 20.7 | 19.6 | 20.2 | 22.2 | 18.5 | 20.4 |
| 25 | 100 | 25.4 | 24.0 | 24.7 | 28.7 | 20.2 | 24.4 |
| 33 | 96 | 32.2 | 34.0 | 33.1 | 36.6 | 29.2 | 32.9 |
| 44 | 100 | 40.5 | 42.2 | 41.4 | 46.0 | 34.2 | 40.1 |
| 59 | 100 | 55.8 | 52.0 | 53.9 | 61.7 | 47.9 | 54.8 |
| 78 | 100 | 70.3 | 67.2 | 68.8 | 81.0 | 55.5 | 68.2 |
| 104 | 100 | 104.0 | 90.8 | 97.4 | 99.5 | 72.2 | 85.8 |
| 139 | 100 | 145.0 | 113.0 | 129.0 | 144.0 | 94.8 | 119.4 |
| 186 | 48 | 240.0 | 147.0 | 193.5 | 187.0 | 131.0 | 159.0 |
| 48-hr LC50 (SK) | | | | 190.50 | | | 157.20 |
| 48-hr LC50 (ICPIN) | | | | 191.00 | | | 157.50 |

# ATTACHMENTS

**Chemical Analyses**

**Sample Custody Record(s)**

**Data Sheets**

**Statistical Analyses**

**Reference Toxicants**

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 24082595

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

**Client Project Name :**
**24H3618**

| | | | |
|---|---|---|---|
| **Report To :** | Client Name: | NWDLS | P.O.#.: 24H3618 |
| | Attn: | Matt Matthews | Sample Collected By: |
| | Client Address: | 130 S Trade Center Pkwy | Date Collected: 08/21/24 |
| | City, State, Zip: | Conroe, Texas, 77385 | |

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

| Client Sample ID | Matrix | A&B Sample ID |
|---|---|---|
| 24H3618-01 | Water | 24082595.01 |

Released By: Gobinath Rangasamy
Title: Project Manager
Date: 8/29/2024

This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/01/2024; Expires: 03/31/2025
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

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

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

ab-q210-0321

Date Received : 08/23/2024 07:35

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 24082595

Date: 8/29/2024

## General Term Definition

| | | | |
|---|---|---|---|
| Back-Wt | Back Weight | Post-Wt | Post Weight |
| BRL | Below Reporting Limit | ppm | parts per million |
| cfu | colony-forming units | Pre-Wt | Previous Weight |
| Conc. | Concentration | Q | Qualifier |
| D.F. | Dilution Factor | RegLimit | Regulatory Limit |
| Front-Wt | Front Weight | RLU | Relative Light Unit |
| J | Estimation. Below calibration range but above MDL | RPD | Relative Percent Difference |
| LCS | Laboratory Check Standard | RptLimit | Reporting Limit |
| LCSD | Laboratory Check Standard Duplicate | SDL | Sample Detection Limit |
| LOD | Limit of detection adjusted for %M + DF | SQL | Below calibration range but above MDL |
| LOQ | Limit of Quantitation adjusted for %M + DF | surr | Surrogate |
| MS | Matrix Spike | T | Time |
| MSD | Matrix Spike Duplicate | TNTC | Too numerous to count |
| MW | Molecular Weight | UQL | Unadjusted Upper Quantitation Limit |
| MQL | Unadjusted Minimum Quantitation Limit | | |

## Qualifier Definition

# LABORATORY TEST RESULTS

Job ID : 24082595

Date 8/29/2024

Client Name: NWDLS

Attn: Matt Matthews

Project Name: 24H3618

Client Sample ID: 24H3618-01
Date Collected: 08/21/24
Time Collected: 12:00
Other Information:

Job Sample ID: 24082595.01
Sample Matrix Water
% Moisture

| Test Method | Parameter/Test Description | Result | Units | DF | SDL | SQL | Reg Limit | Q | Date Time | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| SM 5310B | Dissolved Organic Carbon | | | | | | | | | |
| | DOC[2] | 7.40 | mg/L | 1 | 0.610 | 1.00 | | | 08/27/24 13:13 | KTH |
| SM 5310B | Total Organic Carbon | | | | | | | | | |
| | TOC | 9.30 | mg/L | 1.00 | 0.61 | 1.00 | | | 08/27/24 14:29 | KTH |

ab-q212-0321

[2]-Parameter not available for accreditation.

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082595 **Date :** 8/29/2024

**Analysis : Total Organic Carbon** **Method : SM 5310B** **Reporting Units : mg/L**

**QC Batch ID :** Qb240827122 **Created Date :** 08/27/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082595.01

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| TOC | TOC | < MDL | mg/L | 1.00 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 10 | 10.7 | 107 | | | | | | 89.4-113 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082733.01**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 5.21 | 5 | 10.2 | 99.9 | 5 | 10.3 | 101 | 0.5 | 10 | 80-120 | |

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082595 **Date :** 8/29/2024

**Analysis :** Dissolved Organic Carbon **Method :** SM 5310B **Reporting Units :** mg/L

**QC Batch ID :** Qb24082919 **Created Date :** 08/27/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082595.01

**Sample Preparation :** PB24082906 **Prep Method :** SM 5310B **Prep Date :** 08/27/24 10:00 **Prep By :** Karthick

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| DOC | | < MDL | mg/L | 1 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| DOC | 10 | 10.2 | 102 | 10 | 9.8 | 98 | 4 | 20 | 80-120 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082585.01**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOC | BRL | 5 | 4.5 | 90 | 5 | 4.5 | 90 | 0 | 20 | 80-120 | |

NWDLS
North Water District Laboratory Services, Inc

# 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: Matt Matthews

**Subcontracted Laboratory:**

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

## Work Order: 24H3618

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Sample ID: 24H3618-01** *Aqueous* *Sampled: 08/21/2024 12:00* | | | |
| DOC-5310 C | 09/04/2024 | 09/18/2024 12:00 | |
| *Analyte(s):* OIAB<br>Dissolved Organic Carbon | | | |
| TOC-5310 C | 09/04/2024 | 09/18/2024 12:00 | |
| *Analyte(s):*<br>Total Organic Carbon (TOC) | | | |
| *Containers Supplied:* | | | |

Andrew Rodriguez — Released By — 8-23-24 — Date

Received By — 08/23/24 — Date

5.8°C 0735

**Job ID:24082595**

08/23/2024 NWDLS AMS

# Sample Condition Checklist

| | | |
|---|---|---|
| A&B JobID : **24082595** | Date Received : **08/23/2024** | Time Received : **7:35AM** |
| Client Name : **NWDLS** | | |
| Temperature : **5.8°C** | Sample pH : **<2 TOC** | |
| Thermometer ID : **IR7** | pH Paper ID : **234223** | |
| 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 : KSmith

Check in by/date : KSmith / 08/23/2024

ab-s005-1123

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 24082585

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

**Client Project Name :**
**24H3697**

| | | | |
|---|---|---|---|
| **Report To :** | Client Name: | NWDLS | P.O.#.: 24H3697 |
| | Attn: | Matt Matthews | Sample Collected By: |
| | Client Address: | 130 S Trade Center Pkwy | Date Collected: 08/21/24 |
| | City, State, Zip: | Conroe, Texas, 77385 | |

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

| Client Sample ID | Matrix | A&B Sample ID |
|---|---|---|
| 24H3697-01 | Water | 24082585.01 |

Released By: Gobinath Rangasamy
Title: Project Manager
Date: 8/29/2024

This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/01/2024; Expires: 03/31/2025
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

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

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

ab-q210-0321

Date Received : 08/23/2024 07:35

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 24082585

Date: 8/29/2024

## General Term Definition

| | | | |
|---|---|---|---|
| Back-Wt | Back Weight | Post-Wt | Post Weight |
| BRL | Below Reporting Limit | ppm | parts per million |
| cfu | colony-forming units | Pre-Wt | Previous Weight |
| Conc. | Concentration | Q | Qualifier |
| D.F. | Dilution Factor | RegLimit | Regulatory Limit |
| Front-Wt | Front Weight | RLU | Relative Light Unit |
| J | Estimation. Below calibration range but above MDL | RPD | Relative Percent Difference |
| LCS | Laboratory Check Standard | RptLimit | Reporting Limit |
| LCSD | Laboratory Check Standard Duplicate | SDL | Sample Detection Limit |
| LOD | Limit of detection adjusted for %M + DF | SQL | Below calibration range but above MDL |
| LOQ | Limit of Quantitation adjusted for %M + DF | surr | Surrogate |
| MS | Matrix Spike | T | Time |
| MSD | Matrix Spike Duplicate | TNTC | Too numerous to count |
| MW | Molecular Weight | UQL | Unadjusted Upper Quantitation Limit |
| MQL | Unadjusted Minimum Quantitation Limit | | |

## Qualifier Definition

| | |
|---|---|
| U | Undetected at SDL (Sample Detection Limit). |

# LABORATORY TEST RESULTS

Job ID : 24082585

Date 8/29/2024

Client Name: NWDLS

Attn: Matt Matthews

Project Name: 24H3697

Client Sample ID: 24H3697-01
Date Collected: 08/21/24
Time Collected: 15:15
Other Information:

Job Sample ID: 24082585.01
Sample Matrix Water
% Moisture

| Test Method | Parameter/Test Description | Result | Units | DF | SDL | SQL | Reg Limit | Q | Date Time | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| SM 5310B | Dissolved Organic Carbon | | | | | | | | | |
| | DOC[2] | <0.610 | mg/L | 1 | 0.610 | 1.00 | | U | 08/27/24 13:13 | KTH |
| SM 5310B | Total Organic Carbon | | | | | | | | | |
| | TOC | <0.61 | mg/L | 1.00 | 0.61 | 1.00 | | U | 08/27/24 13:22 | KTH |

ab-q212-0321

[2]-Parameter not available for accreditation.

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082585 **Date :** 8/29/2024

**Analysis : Total Organic Carbon** **Method : SM 5310B** **Reporting Units : mg/L**

**QC Batch ID :** Qb240827122 **Created Date :** 08/27/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082585.01

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| TOC | TOC | < MDL | mg/L | 1.00 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 10 | 10.7 | 107 | | | | | | 89.4-113 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082733.01**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 5.21 | 5 | 10.2 | 99.9 | 5 | 10.3 | 101 | 0.5 | 10 | 80-120 | |

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082585 **Date :** 8/29/2024

**Analysis :** Dissolved Organic Carbon **Method :** SM 5310B **Reporting Units :** mg/L

**QC Batch ID :** Qb24082919 **Created Date :** 08/27/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082585.01

**Sample Preparation :** PB24082906 **Prep Method :** SM 5310B **Prep Date :** 08/27/24 10:00 **Prep By :** Karthick

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| DOC | | < MDL | mg/L | 1 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| DOC | 10 | 10.2 | 102 | 10 | 9.8 | 98 | 4 | 20 | 80-120 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082585.01**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOC | BRL | 5 | 4.5 | 90 | 5 | 4.5 | 90 | 0 | 20 | 80-120 | |

NWDLS
North Water District Laboratory Services, Inc.

# 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: Matt Matthews

**Subcontracted Laboratory:**

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

## Work Order: 24H3697

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Sample ID: 24H3697-01** *Aqueous* *Sampled: 08/21/2024 15:15* | | | |
| DOC-5310 C 01AB<br>*Analyte(s):*<br>Dissolved Organic Carbon | 09/04/2024 | 09/18/2024 15:15 | |
| TOC-5310 C<br>*Analyte(s):*<br>Total Organic Carbon (TOC) | 09/04/2024 | 09/18/2024 15:15 | |
| *Containers Supplied:* | | | |

Andrew Rodriguez 8-23-24
Released By Date

Received By 08/23/24
Date

5.8c 0735

**Job ID:24082585**

08/23/2024 NWDLS AMS

# Sample Condition Checklist

| | | |
|---|---|---|
| A&B JobID : **24082585** | Date Received : **08/23/2024** | Time Received : **7:35AM** |
| Client Name : **NWDLS** | | |
| Temperature : **5.8°C** | Sample pH : **<2 TOC** | |
| Thermometer ID : **IR7** | pH Paper ID : **234223** | |
| 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 : KSmith

Check in by/date : KSmith / 08/23/2024

ab-s005-1123

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 24082579

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

**Client Project Name :**
**24H3899**

| | | | |
|---|---|---|---|
| **Report To :** | Client Name: | NWDLS | P.O.#.: 24H3899 |
| | Attn: | Matt Matthews | Sample Collected By: |
| | Client Address: | 130 S Trade Center Pkwy | Date Collected: 08/21/24 |
| | City, State, Zip: | Conroe, Texas, 77385 | |

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

| Client Sample ID | Matrix | A&B Sample ID |
|---|---|---|
| 24H3899-01 | Water | 24082579.01 |

Released By: Gobinath Rangasamy
Title: Project Manager
Date: 8/29/2024

This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/01/2024; Expires: 03/31/2025
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

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

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

ab-q210-0321

Date Received : 08/23/2024 07:35

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 24082579

Date: 8/29/2024

## General Term Definition

| | | | |
|---|---|---|---|
| Back-Wt | Back Weight | Post-Wt | Post Weight |
| BRL | Below Reporting Limit | ppm | parts per million |
| cfu | colony-forming units | Pre-Wt | Previous Weight |
| Conc. | Concentration | Q | Qualifier |
| D.F. | Dilution Factor | RegLimit | Regulatory Limit |
| Front-Wt | Front Weight | RLU | Relative Light Unit |
| J | Estimation. Below calibration range but above MDL | RPD | Relative Percent Difference |
| LCS | Laboratory Check Standard | RptLimit | Reporting Limit |
| LCSD | Laboratory Check Standard Duplicate | SDL | Sample Detection Limit |
| LOD | Limit of detection adjusted for %M + DF | SQL | Below calibration range but above MDL |
| LOQ | Limit of Quantitation adjusted for %M + DF | surr | Surrogate |
| MS | Matrix Spike | T | Time |
| MSD | Matrix Spike Duplicate | TNTC | Too numerous to count |
| MW | Molecular Weight | UQL | Unadjusted Upper Quantitation Limit |
| MQL | Unadjusted Minimum Quantitation Limit | | |

## Qualifier Definition

# LABORATORY TEST RESULTS

Job ID : 24082579

Date 8/29/2024

Client Name: NWDLS

Attn: Matt Matthews

Project Name: 24H3899

Client Sample ID: 24H3899-01
Date Collected: 08/21/24
Time Collected: 08:25
Other Information:

Job Sample ID: 24082579.01
Sample Matrix Water
% Moisture

| Test Method | Parameter/Test Description | Result | Units | DF | SDL | SQL | Reg Limit | Q | Date Time | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| SM 5310B | Dissolved Organic Carbon | | | | | | | | | |
| | DOC[2] | 5.90 | mg/L | 1 | 0.610 | 1.00 | | | 08/27/24 13:13 | KTH |
| SM 5310B | Total Organic Carbon | | | | | | | | | |
| | TOC | 6.72 | mg/L | 1.00 | 0.61 | 1.00 | | | 08/26/24 12:42 | KTH |

ab-q212-0321

[2]-Parameter not available for accreditation.

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082579 **Date :** 8/29/2024

**Analysis : Total Organic Carbon** **Method : SM 5310B** **Reporting Units : mg/L**

**QC Batch ID :** Qb24082718 **Created Date :** 08/26/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082579.01

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| TOC | TOC | < MDL | mg/L | 1.00 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 10 | 10.2 | 102 | | | | | | 89.4-113 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082581.02**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 3.64 | 5 | 8.44 | 95.9 | 5 | 8.44 | 95.9 | 0 | 10 | 80-120 | |

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082579 **Date :** 8/29/2024

**Analysis :** Dissolved Organic Carbon **Method :** SM 5310B **Reporting Units :** mg/L

**QC Batch ID :** Qb24082919 **Created Date :** 08/27/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082579.01

**Sample Preparation :** PB24082906 **Prep Method :** SM 5310B **Prep Date :** 08/27/24 10:00 **Prep By :** Karthick

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| DOC | | < MDL | mg/L | 1 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| DOC | 10 | 10.2 | 102 | 10 | 9.8 | 98 | 4 | 20 | 80-120 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082585.01**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOC | BRL | 5 | 4.5 | 90 | 5 | 4.5 | 90 | 0 | 20 | 80-120 | |

NWDLS
North Water District Laboratory Services, Inc.

# 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: Matt Matthews

**Subcontracted Laboratory:**

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

## Work Order: 24H3899

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Sample ID: 24H3899-01** *Aqueous* *Sampled: 08/21/2024 08:25* | | | |
| DOC-5310 C 01AB | 09/04/2024 | 09/18/2024 08:25 | |
| *Analyte(s):* Dissolved Organic Carbon | | | |
| TOC-5310 C | 09/04/2024 | 09/18/2024 08:25 | |
| *Analyte(s):* Total Organic Carbon (TOC) | | | |
| *Containers Supplied:* | | | |

Andrew Rodriguez 8-23-24
Released By Date

Received By 08/23/24
Date

5.8°C 0735

Job ID:24082579
08/23/2024 NWDLS AMS

# Sample Condition Checklist

| | | |
|---|---|---|
| A&B JobID : **24082579** | Date Received : **08/23/2024** | Time Received : **7:35AM** |
| Client Name : **NWDLS** | | |
| Temperature : **5.8°C** | Sample pH : **<2 TOC, DOC** | |
| Thermometer ID : **IR7** | pH Paper ID : **234223** | |
| 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 : KSmith

Check in by/date : KSmith / 08/23/2024

ab-s005-1123

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 24082576

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

**Client Project Name :**
**24H4252**

| | | | |
|---|---|---|---|
| **Report To :** | Client Name: | NWDLS | P.O.#.: 24H4252 |
| | Attn: | Matt Matthews | Sample Collected By: |
| | Client Address: | 130 S Trade Center Pkwy | Date Collected: 08/21/24 |
| | City, State, Zip: | Conroe, Texas, 77385 | |

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

| Client Sample ID | Matrix | A&B Sample ID |
|---|---|---|
| 24H4252-01 | Water | 24082576.01 |

Released By: Gobinath Rangasamy
Title: Project Manager
Date: 8/29/2024

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.

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ab-q210-0321

Date Received : 08/23/2024 07:35

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 24082576

Date: 8/29/2024

## General Term Definition

| | | | |
|---|---|---|---|
| Back-Wt | Back Weight | Post-Wt | Post Weight |
| BRL | Below Reporting Limit | ppm | parts per million |
| cfu | colony-forming units | Pre-Wt | Previous Weight |
| Conc. | Concentration | Q | Qualifier |
| D.F. | Dilution Factor | RegLimit | Regulatory Limit |
| Front-Wt | Front Weight | RLU | Relative Light Unit |
| J | Estimation. Below calibration range but above MDL | RPD | Relative Percent Difference |
| LCS | Laboratory Check Standard | RptLimit | Reporting Limit |
| LCSD | Laboratory Check Standard Duplicate | SDL | Sample Detection Limit |
| LOD | Limit of detection adjusted for %M + DF | SQL | Below calibration range but above MDL |
| LOQ | Limit of Quantitation adjusted for %M + DF | surr | Surrogate |
| MS | Matrix Spike | T | Time |
| MSD | Matrix Spike Duplicate | TNTC | Too numerous to count |
| MW | Molecular Weight | UQL | Unadjusted Upper Quantitation Limit |
| MQL | Unadjusted Minimum Quantitation Limit | | |

## Qualifier Definition

# LABORATORY TEST RESULTS

Job ID : 24082576

Date 8/29/2024

Client Name: NWDLS

Attn: Matt Matthews

Project Name: 24H4252

Client Sample ID: 24H4252-01
Date Collected: 08/21/24
Time Collected: 12:00
Other Information:

Job Sample ID: 24082576.01
Sample Matrix Water
% Moisture

| Test Method | Parameter/Test Description | Result | Units | DF | SDL | SQL | Reg Limit | Q | Date Time | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| SM 5310B | Dissolved Organic Carbon | | | | | | | | | |
| | DOC[2] | 6.20 | mg/L | 1 | 0.610 | 1.00 | | | 08/27/24 13:13 | KTH |
| SM 5310B | Total Organic Carbon | | | | | | | | | |
| | TOC | 7.67 | mg/L | 1.00 | 0.61 | 1.00 | | | 08/26/24 12:32 | KTH |

ab-q212-0321

[2]-Parameter not available for accreditation.

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082576 **Date :** 8/29/2024

**Analysis : Total Organic Carbon** **Method : SM 5310B** **Reporting Units : mg/L**

**QC Batch ID :** Qb24082718 **Created Date :** 08/26/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082576.01

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| TOC | TOC | < MDL | mg/L | 1.00 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 10 | 10.2 | 102 | | | | | | 89.4-113 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082581.02**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 3.64 | 5 | 8.44 | 95.9 | 5 | 8.44 | 95.9 | 0 | 10 | 80-120 | |

# QUALITY CONTROL CERTIFICATE

**Job ID :** 24082576 **Date :** 8/29/2024

**Analysis :** Dissolved Organic Carbon **Method :** SM 5310B **Reporting Units :** mg/L

**QC Batch ID :** Qb24082919 **Created Date :** 08/27/24 **Created By :** Karthick

**Samples in This QC Batch :** 24082576.01

**Sample Preparation :** PB24082906 **Prep Method :** SM 5310B **Prep Date :** 08/27/24 10:00 **Prep By :** Karthick

**QC Type: Method Blank**

| Parameter | CAS # | Result | Units | D.F. | MQL | MDL | | Qual |
|---|---|---|---|---|---|---|---|---|
| DOC | | < MDL | mg/L | 1 | 1 | 0.61 | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| DOC | 10 | 10.2 | 102 | 10 | 9.8 | 98 | 4 | 20 | 80-120 | |

**QC Type: MS and MSD**
**QC Sample ID: 24082585.01**

| Parameter | Sample Result | MS Spk Added | MS Result | MS % Rec | MSD Spk Added | MSD Result | MSD % Rec | RPD | RPD CtrlLimit | %Rec CtrlLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOC | BRL | 5 | 4.5 | 90 | 5 | 4.5 | 90 | 0 | 20 | 80-120 | |

NWDLS
North Water District Laboratory Services, inc

# 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: Matt Matthews

**Subcontracted Laboratory:**

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

## Work Order: 24H4252

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Sample ID: 24H4252-01** *Aqueous* *Sampled: 08/21/2024 12:00* | | | |
| DOC-5310 C | 09/04/2024 | 09/18/2024 12:00 | |
| *Analyte(s):* 01AB<br>Dissolved Organic Carbon | | | |
| TOC-5310 C | 09/04/2024 | 09/18/2024 12:00 | |
| *Analyte(s):*<br>Total Organic Carbon (TOC) | | | |
| *Containers Supplied:* | | | |

Andrew Rodriguez 8-23-24
Released By Date

Received By 08/35/24 Date
5.8-c 0735

Job ID:24082576
08/23/2024 NWDLS AMS

# Sample Condition Checklist

| | | |
|---|---|---|
| A&B JobID : **24082576** | Date Received : **08/23/2024** | Time Received : **7:35AM** |
| Client Name : **NWDLS** | | |
| Temperature : **5.8°C** | Sample pH : **<2 TOC** | |
| Thermometer ID : **IR7** | pH Paper ID : **234223** | |
| 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 : KSmith

Check in by/date : KSmith / 08/23/2024

ab-s005-1123

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Email: lab@nwdls.com
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TCEQ TX-C24-00185

A&S Engineers, Inc.
10377 Stella Link Road
Houston, TX 77025-5445

**Reported:**
01/17/2025 17:29

## Chemical Analyses

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1011 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 12:55 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1012 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-02 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0186 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 11:57 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1013 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-03 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0191 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 12:57 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1014 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-04 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0276 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 12:59 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1015 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-05 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0457 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:33 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1021 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-11 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:01 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1022 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-12 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0147 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:03 | JKC |

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10377 Stella Link Road
Houston, TX 77025-5445

**Reported:**
01/17/2025 17:29

## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1023 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-13 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0179 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:05 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1024 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-14 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0312 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:17 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1025 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-15 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0417 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:01 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1031 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-21 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:30 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1032 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-22 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0140 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:19 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1033 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-23 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0189 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:21 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1034 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-24 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0259 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:34 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1035 — **Date Collected:** 08/22/2024 13:36
**Lab Sample ID:** 24G1018-25 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0819 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:36 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1041 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-31 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:31 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1042 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-32 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0141 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:33 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1043 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-33 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0176 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:35 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1044 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-34 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0263 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:37 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1045 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-35 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0351 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:38 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2011 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-41 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00689 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:19 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2012 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-42 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0322 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:50 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2013 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-43 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0325 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:03 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2014 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-44 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0423 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:05 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2015 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-45 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0631 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:17 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2016 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-46 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0756 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:29 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2017 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-47 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.105 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:31 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2018 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-48 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.153 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:33 | JKC |

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**Reported:**
01/17/2025 17:29

## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2019 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-49 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.278 | mg/L | | 5 | 0.000910 | 0.0100 | BHH3498 | 08/28/2024 13:48 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2021 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-51 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00754 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 11:51 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2022 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-52 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0223 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 12:49 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2023 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-53 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0292 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:19 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2024 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-54 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0398 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:21 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2025 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-55 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0533 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:23 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2026 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-56 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0743 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3499 | 08/28/2024 12:31 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2027 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-57 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0998 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:54 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2028 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-58 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.154 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:24 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2029 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-59 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.252 | mg/L | | 5 | 0.000910 | 0.0100 | BHH3703 | 08/29/2024 11:26 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2031 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-61 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00607 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:48 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2032 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-62 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0278 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:40 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2033 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-63 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0274 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:42 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2034 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-64 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0386 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:58 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2035 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-65 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0444 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:50 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2036 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-66 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0705 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 10:00 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2037 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-67 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0891 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 10:02 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2038 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-68 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.142 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3498 | 08/28/2024 13:58 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2039 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-69 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.264 | mg/L | | 5 | 0.000910 | 0.0100 | BHH3498 | 08/29/2024 09:18 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2041 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-71 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00721 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 10:04 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2042 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-72 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0244 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 09:13 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2043 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-73 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0245 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:52 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2044 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-74 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0340 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:54 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2045 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-75 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0436 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 10:05 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2046 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-76 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0596 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:56 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2047 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-77 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0842 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 10:07 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2048 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-78 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.117 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3885 | 08/30/2024 10:09 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2049 — **Date Collected:** 08/22/2024 13:45
**Lab Sample ID:** 24G1018-79 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.173 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3703 | 08/29/2024 09:58 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER - Effluent-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Outfall 001 — **Date Collected:** 08/21/2024 12:00
**Lab Sample ID:** 24H3618-01 — **Collected by:** Fernando Alvarez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 40.4 | mg/L | | 50 | 0.585 | 5.00 | BHH2893 | 08/23/2024 13:17 | JKC |
| Metals, Total EPA 200.8 | Copper | A | <0.100 | mg/L | A, U | 50 | 0.00910 | 0.100 | BHH2893 | 08/23/2024 13:17 | JKC |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 124 | mg/L | | 50 | 1.74 | 33.1 | [CALC] | 08/28/2024 10:34 | JKC |
| Metals, Total EPA 200.8 | Magnesium | A | 5.53 | mg/L | | 50 | 0.0670 | 5.00 | BHH2893 | 08/28/2024 10:34 | JKC |
| Metals, Total EPA 200.8 | Potassium | A | 18.0 | mg/L | | 50 | 0.156 | 10.0 | BHH2893 | 08/23/2024 13:17 | JKC |
| Metals, Total EPA 200.8 | Sodium | A | 95.8 | mg/L | | 100 | 0.241 | 20.0 | BHH2893 | 08/29/2024 10:43 | JKC |
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00547 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3384 | 08/27/2024 12:52 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 56.6 | mg/L | | 1 | 10.0 | 10.0 | BHH3172 | 08/26/2024 09:57 | FPN |
| General Chemistry SM 2510 B | Conductivity | A | 846 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHH3172 | 08/26/2024 09:57 | FPN |
| General Chemistry EPA 350.1 | Ammonia as N | A | 0.0630 | mg/L | | 1 | 0.0140 | 0.0400 | BHH2831 | 08/22/2024 14:55 | AMM |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHH3172 | 08/26/2024 09:57 | FPN |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 482 | mg/L | B1 | 1 | 10.0 | 10.0 | BHH2913 | 08/26/2024 12:09 | JRU |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | 2.74 | mg/L | B1 | 1 | 1.00 | 1.00 | BHH2874 | 08/22/2024 12:37 | BJH |
| Field Hach 10360 | DO Field | N | 8.28 | mg/L | | 1 | 1.00 | 1.00 | BHH3029 | 08/21/2024 12:00 | FCA |
| Field SM 4500-H+ B | pH | A | 8.15 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHH3029 | 08/21/2024 12:00 | FCA |
| Field SM 2550 B | Temperature °C Field | N | 36.3 | °C | | 1 | 1.00 | 1.00 | BHH3029 | 08/21/2024 12:00 | FCA |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.04 | mg/L | U | 1 | 0.25 | 0.25 | BHH3029 | 08/21/2024 12:00 | FCA |

**CH MUD- WET Cu-WER - Effluent-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Outfall 001 — **Date Collected:** 08/21/2024 12:00
**Lab Sample ID:** 24H3618-01RE1 — **Collected by:** Fernando Alvarez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Chloride (Rerun) | A | 101 | mg/L | CB | 5 | 0.172 | 5.00 | BHH3766 | 08/28/2024 21:17 | AGZ |
| General Chemistry EPA 300.0 | Sulfate (Rerun) | A | 69.0 | mg/L | | 5 | 0.170 | 5.00 | BHH3766 | 08/28/2024 21:17 | AGZ |

**CH MUD- WET Cu-WER- LabH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Lab Water — **Date Collected:** 08/21/2024 15:15
**Lab Sample ID:** 24H3697-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 17.2 | mg/L | | 1 | 0.0117 | 0.200 | BHH3131 | 08/26/2024 09:05 | JKC |
| Metals, Total EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHH3131 | 08/26/2024 09:05 | JKC |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 106 | mg/L | | 1 | 0.0347 | 1.32 | [CALC] | 08/26/2024 09:05 | JKC |
| Metals, Total EPA 200.8 | Magnesium | A | 15.3 | mg/L | | 1 | 0.00134 | 0.200 | BHH3131 | 08/26/2024 09:05 | JKC |
| Metals, Total EPA 200.8 | Potassium | A | 2.57 | mg/L | | 1 | 0.00313 | 0.200 | BHH3131 | 08/26/2024 09:05 | JKC |
| Metals, Total EPA 200.8 | Sodium | A | 28.1 | mg/L | | 50 | 0.120 | 10.0 | BHH3131 | 08/29/2024 09:36 | JKC |
| Metals, Dissolved EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHH3384 | 08/27/2024 12:46 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 71.5 | mg/L | | 1 | 10.0 | 10.0 | BHH3138 | 08/23/2024 14:05 | FPN |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER- LabH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Lab Water (Continued) — **Date Collected:** 08/21/2024 15:15
**Lab Sample ID:** 24H3697-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry SM 2510 B | Conductivity | A | 350 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHH3138 | 08/23/2024 14:05 | FPN |
| General Chemistry EPA 350.1 | Ammonia as N | A | <0.0400 | mg/L | U | 1 | 0.0140 | 0.0400 | BHH3040 | 08/23/2024 15:28 | AMM |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHH3138 | 08/23/2024 14:05 | FPN |
| General Chemistry EPA 300.0 | Sulfate | A | 321 | mg/L | | 250 | 8.52 | 250 | BHH3174 | 08/23/2024 23:55 | AGZ |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 212 | mg/L | | 1 | 10.0 | 10.0 | BHH2914 | 08/26/2024 11:17 | BP |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | <1.00 | mg/L | U | 1 | 1.00 | 1.00 | BHH2907 | 08/23/2024 12:09 | BP |
| Field Hach 10360 | DO Field | N | 8.44 | mg/L | | 1 | 1.00 | 1.00 | BHH3061 | 08/21/2024 15:15 | TRG |
| Field SM 4500-H+ B | pH | A | 7.36 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHH3061 | 08/21/2024 15:15 | TRG |
| Field SM 2550 B | Temperature °C Field | N | 25.0 | °C | | 1 | 1.00 | 1.00 | BHH3061 | 08/21/2024 15:15 | TRG |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.00 | mg/L | U | 1 | 0.25 | 0.25 | BHH3061 | 08/21/2024 15:15 | TRG |

**CH MUD- WET Cu-WER- LabH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Lab Water — **Date Collected:** 08/21/2024 15:15
**Lab Sample ID:** 24H3697-01RE2 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Chloride (Rerun) | A | 2.15 | mg/L | CB | 1 | 0.0345 | 1.00 | BHH4029 | 08/29/2024 21:13 | AGZ |

**CH MUD- WET Cu-WER- ReceivingH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Receiving Water — **Date Collected:** 08/21/2024 8:25
**Lab Sample ID:** 24H3899-01 — **Collected by:** Fernando Alvarez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 48.9 | mg/L | | 50 | 0.585 | 5.00 | BHH2893 | 08/23/2024 13:19 | JKC |
| Metals, Total EPA 200.8 | Copper | A | <0.100 | mg/L | U, A | 50 | 0.00910 | 0.100 | BHH2893 | 08/23/2024 13:19 | JKC |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 154 | mg/L | | 50 | 1.74 | 33.1 | [CALC] | 08/28/2024 10:36 | JKC |
| Metals, Total EPA 200.8 | Magnesium | A | 7.77 | mg/L | | 50 | 0.0670 | 5.00 | BHH2893 | 08/28/2024 10:36 | JKC |
| Metals, Total EPA 200.8 | Potassium | A | 15.1 | mg/L | | 50 | 0.156 | 10.0 | BHH2893 | 08/23/2024 13:19 | JKC |
| Metals, Total EPA 200.8 | Sodium | A | 102 | mg/L | | 100 | 0.241 | 20.0 | BHH2893 | 08/29/2024 10:45 | JKC |
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00518 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3384 | 08/27/2024 12:56 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 136 | mg/L | | 1 | 10.0 | 10.0 | BHH3138 | 08/23/2024 14:36 | FPN |
| General Chemistry SM 2510 B | Conductivity | A | 799 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHH3138 | 08/23/2024 14:36 | FPN |
| General Chemistry EPA 350.1 | Ammonia as N | A | 0.536 | mg/L | | 4 | 0.0560 | 0.160 | BHH2832 | 08/22/2024 15:18 | AMM |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHH3138 | 08/23/2024 14:36 | FPN |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 424 | mg/L | | 1 | 10.0 | 10.0 | BHH2912 | 08/26/2024 10:50 | JRU |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | 72.5 | mg/L | B1 | 1 | 1.00 | 1.00 | BHH2874 | 08/22/2024 12:37 | BJH |
| Field Hach 10360 | DO Field | N | 8.33 | mg/L | | 1 | 1.00 | 1.00 | BHH3030 | 08/21/2024 08:25 | FCA |
| Field SM 4500-H+ B | pH | A | 7.55 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHH3030 | 08/21/2024 08:25 | FCA |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER- ReceivingH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Receiving Water (Continued) — **Date Collected:** 08/21/2024 8:25
**Lab Sample ID:** 24H3899-01 — **Collected by:** Fernando Alvarez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Field SM 2550 B | Temperature °C Field | N | 31.1 | °C | | 1 | 1.00 | 1.00 | BHH3030 | 08/21/2024 08:25 | FCA |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.14 | mg/L | U | 1 | 0.25 | 0.25 | BHH3030 | 08/21/2024 08:25 | FCA |

**CH MUD- WET Cu-WER- ReceivingH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Receiving Water — **Date Collected:** 08/21/2024 8:25
**Lab Sample ID:** 24H3899-01RE1 — **Collected by:** Fernando Alvarez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Chloride (Rerun) | A | 110 | mg/L | CB | 5 | 0.172 | 5.00 | BHH3766 | 08/28/2024 22:16 | AGZ |
| General Chemistry EPA 300.0 | Sulfate (Rerun) | A | 38.7 | mg/L | | 5 | 0.170 | 5.00 | BHH3766 | 08/28/2024 22:16 | AGZ |

**CH MUD- WET Cu-WER- SD-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** SD — **Date Collected:** 08/21/2024 12:00
**Lab Sample ID:** 24H4252-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 40.8 | mg/L | | 10 | 0.117 | 2.00 | BHH3131 | 08/26/2024 09:35 | JKC |
| Metals, Total EPA 200.8 | Copper | A | 0.00634 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3131 | 08/26/2024 09:33 | JKC |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 134 | mg/L | | 10 | 0.298 | 5.82 | [CALC] | 08/26/2024 09:35 | JKC |
| Metals, Total EPA 200.8 | Magnesium | A | 7.89 | mg/L | | 1 | 0.00134 | 0.200 | BHH3131 | 08/26/2024 09:33 | JKC |
| Metals, Total EPA 200.8 | Potassium | A | 15.9 | mg/L | | 1 | 0.00313 | 0.200 | BHH3131 | 08/26/2024 09:33 | JKC |
| Metals, Total EPA 200.8 | Sodium | A | 99.6 | mg/L | | 50 | 0.120 | 10.0 | BHH3131 | 08/29/2024 09:49 | JKC |
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00489 | mg/L | | 1 | 0.000182 | 0.00200 | BHH3384 | 08/27/2024 13:18 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 110 | mg/L | | 1 | 10.0 | 10.0 | BHH3138 | 08/23/2024 14:55 | FPN |
| General Chemistry SM 2510 B | Conductivity | A | 816 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHH3138 | 08/23/2024 14:55 | FPN |
| General Chemistry EPA 350.1 | Ammonia as N | A | 0.347 | mg/L | | 1 | 0.0140 | 0.0400 | BHH3038 | 08/23/2024 14:29 | AMM |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHH3138 | 08/23/2024 14:55 | FPN |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 476 | mg/L | B1 | 1 | 10.0 | 10.0 | BHH2913 | 08/26/2024 12:09 | JRU |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | 12.8 | mg/L | | 1 | 1.00 | 1.00 | BHH2905 | 08/23/2024 08:33 | BP |
| Field Hach 10360 | DO Field | N | 7.07 | mg/L | | 1 | 1.00 | 1.00 | BHH3062 | 08/21/2024 12:00 | TRG |
| Field SM 4500-H+ B | pH | A | 7.35 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHH3062 | 08/21/2024 12:00 | TRG |
| Field SM 2550 B | Temperature °C Field | N | 29.8 | °C | | 1 | 1.00 | 1.00 | BHH3062 | 08/21/2024 12:00 | TRG |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.04 | mg/L | U | 1 | 0.25 | 0.25 | BHH3062 | 08/21/2024 12:00 | TRG |

**CH MUD- WET Cu-WER- SD-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** SD — **Date Collected:** 08/21/2024 12:00
**Lab Sample ID:** 24H4252-01RE1 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Chloride (Rerun) | A | 109 | mg/L | CB | 5 | 0.172 | 5.00 | BHH3766 | 08/28/2024 21:36 | AGZ |
| General Chemistry EPA 300.0 | Sulfate (Rerun) | A | 47.4 | mg/L | | 5 | 0.170 | 5.00 | BHH3766 | 08/28/2024 21:36 | AGZ |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER- LabH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Lab Water — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J0987-01 — **Collected by:** Marissa Chitolie

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 13.9 | mg/L | | 1 | 0.0117 | 0.100 | BHJ0804 | 10/08/2024 13:48 | TBB |
| Metals, Total EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHJ0804 | 10/08/2024 13:48 | TBB |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 81.7 | mg/L | | 1 | 0.0347 | 0.662 | [CALC] | 10/08/2024 13:48 | TBB |
| Metals, Total EPA 200.8 | Magnesium | A | 11.4 | mg/L | | 1 | 0.00134 | 0.100 | BHJ0804 | 10/08/2024 13:48 | TBB |
| Metals, Total EPA 200.8 | Potassium | A | 1.98 | mg/L | | 1 | 0.00313 | 0.100 | BHJ0804 | 10/08/2024 13:48 | TBB |
| Metals, Total EPA 200.8 | Sodium | A | 26.7 | mg/L | | 20 | 0.0482 | 2.00 | BHJ0804 | 10/09/2024 17:09 | TBB |
| Metals, Dissolved EPA 200.8 | Copper | A | <0.00250 | mg/L | U | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:06 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 69.9 | mg/L | | 1 | 10.0 | 10.0 | BHJ0577 | 10/04/2024 09:27 | FPN |
| General Chemistry SM 2510 B | Conductivity | A | 312 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHJ0577 | 10/04/2024 09:27 | FPN |
| General Chemistry, Dissolved SM | Dissolved Organic Carbon | A | 1.09 | mg/L | CB1, V | 1 | 0.451 | 1.00 | BHJ2126 | 10/17/2024 00:53 | SCH |
| General Chemistry EPA 350.1 | Ammonia as N | A | <0.0400 | mg/L | U | 1 | 0.0140 | 0.0400 | BHJ0636 | 10/04/2024 13:33 | NAZ |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHJ0577 | 10/04/2024 09:27 | FPN |
| General Chemistry EPA 300.0 | Sulfate | A | 82.2 | mg/L | | 10 | 0.341 | 10.0 | BHJ0898 | 10/07/2024 15:51 | AGZ |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 200 | mg/L | | 1 | 10.0 | 10.0 | BHJ0586 | 10/07/2024 11:15 | JRU |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | <1.00 | mg/L | U | 1 | 1.00 | 1.00 | BHJ0582 | 10/07/2024 10:18 | JRU |
| Field Hach 10360 | DO Field | N | 8.38 | mg/L | | 1 | 1.00 | 1.00 | BHJ0515 | 10/03/2024 12:21 | TRG |
| Field SM 4500-H+ B | pH | A | 7.72 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHJ0515 | 10/03/2024 12:21 | TRG |
| Field SM 2550 B | Temperature °C Field | N | 24.4 | °C | | 1 | 1.00 | 1.00 | BHJ0515 | 10/03/2024 12:21 | TRG |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.00 | mg/L | U | 1 | 0.25 | 0.25 | BHJ0515 | 10/03/2024 12:21 | TRG |

**CH MUD- WET Cu-WER- LabH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Lab Water — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J0987-01RE1 — **Collected by:** Marissa Chitolie

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Chloride (Rerun) | A | 1.96 | mg/L | | 1 | 0.0345 | 1.00 | BHJ1228 | 10/09/2024 18:51 | AGZ |
| General Chemistry SM 5310 C | Total Organic Carbon (TOC) (Rerun) | A | <1.00 | mg/L | U | 1 | 0.451 | 1.00 | BHJ2554 | 10/18/2024 21:46 | SCH |

**CH MUD- WET Cu-WER- SD-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** SD — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J0988-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 35.0 | mg/L | | 10 | 0.117 | 1.00 | BHJ0804 | 10/08/2024 14:04 | TBB |
| Metals, Total EPA 200.8 | Copper | A | 0.0107 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ0804 | 10/08/2024 14:02 | TBB |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 115 | mg/L | | 10 | 0.298 | 2.91 | [CALC] | 10/08/2024 14:04 | TBB |
| Metals, Total EPA 200.8 | Magnesium | A | 6.71 | mg/L | | 1 | 0.00134 | 0.100 | BHJ0804 | 10/08/2024 14:02 | TBB |
| Metals, Total EPA 200.8 | Potassium | A | 13.7 | mg/L | | 1 | 0.00313 | 0.100 | BHJ0804 | 10/08/2024 14:02 | TBB |
| Metals, Total EPA 200.8 | Sodium | A | 131 | mg/L | | 20 | 0.0482 | 2.00 | BHJ0804 | 10/09/2024 17:11 | TBB |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER- SD-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** SD (Continued) — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J0988-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00754 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:08 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 150 | mg/L | | 1 | 10.0 | 10.0 | BHJ0577 | 10/04/2024 09:43 | FPN |
| General Chemistry EPA 300.0 | Chloride | A | 102 | mg/L | | 10 | 0.345 | 10.0 | BHJ0898 | 10/07/2024 15:31 | AGZ |
| General Chemistry SM 2510 B | Conductivity | A | 854 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHJ0577 | 10/04/2024 09:43 | FPN |
| General Chemistry EPA 350.1 | Ammonia as N | A | 0.0680 | mg/L | | 1 | 0.0140 | 0.0400 | BHJ0638 | 10/04/2024 14:05 | NAZ |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHJ0577 | 10/04/2024 09:43 | FPN |
| General Chemistry EPA 300.0 | Sulfate | A | 43.8 | mg/L | | 10 | 0.341 | 10.0 | BHJ0898 | 10/07/2024 15:31 | AGZ |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 506 | mg/L | | 1 | 10.0 | 10.0 | BHJ0586 | 10/07/2024 11:15 | JRU |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | 8.84 | mg/L | | 1 | 1.00 | 1.00 | BHJ0584 | 10/07/2024 10:32 | JRU |
| Field Hach 10360 | DO Field | N | 9.58 | mg/L | | 1 | 1.00 | 1.00 | BHJ0556 | 10/03/2024 05:00 | TRG |
| Field SM 4500-H+ B | pH | A | 7.62 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHJ0556 | 10/03/2024 05:00 | TRG |
| Field SM 2550 B | Temperature °C Field | N | 11.3 | °C | | 1 | 1.00 | 1.00 | BHJ0556 | 10/03/2024 05:00 | TRG |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.03 | mg/L | U | 1 | 0.25 | 0.25 | BHJ0556 | 10/03/2024 05:00 | TRG |

**CH MUD- WET Cu-WER- SD-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** SD — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J0988-01RE1 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry SM 5310 C | Total Organic Carbon (TOC) (Rerun) | A | 6.56 | mg/L | | 1 | 0.451 | 1.00 | BHJ2554 | 10/18/2024 22:05 | SCH |

**CH MUD- WET Cu-WER- SD-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** SD — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J0988-01RE3 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry, Dissolved SM | Dissolved Organic Carbon (Rerun) | A | 6.19 | mg/L | CB | 1 | 0.451 | 1.00 | BHJ3274 | 10/25/2024 05:26 | MLB |

**CH MUD- WET Cu-WER - Effluent-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Outfall 001 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1015-01 — **Collected by:** Mario Urquiza

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 33.2 | mg/L | | 10 | 0.117 | 1.00 | BHJ0804 | 10/08/2024 14:08 | TBB |
| Metals, Total EPA 200.8 | Copper | A | 0.00714 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ0804 | 10/08/2024 14:06 | TBB |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 107 | mg/L | | 10 | 0.298 | 2.91 | [CALC] | 10/08/2024 14:08 | TBB |
| Metals, Total EPA 200.8 | Magnesium | A | 5.97 | mg/L | | 1 | 0.00134 | 0.100 | BHJ0804 | 10/08/2024 14:06 | TBB |
| Metals, Total EPA 200.8 | Potassium | A | 15.4 | mg/L | | 1 | 0.00313 | 0.100 | BHJ0804 | 10/08/2024 14:06 | TBB |
| Metals, Total EPA 200.8 | Sodium | A | 101 | mg/L | | 20 | 0.0482 | 2.00 | BHJ0804 | 10/09/2024 17:13 | TBB |
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00443 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:01 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER - Effluent-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Outfall 001 (Continued) — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1015-01 — **Collected by:** Mario Urquiza

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 62.9 | mg/L | | 1 | 10.0 | 10.0 | BHJ0577 | 10/04/2024 09:51 | FPN |
| General Chemistry EPA 300.0 | Chloride | A | 99.2 | mg/L | | 10 | 0.345 | 10.0 | BHJ0898 | 10/07/2024 15:11 | AGZ |
| General Chemistry SM 2510 B | Conductivity | A | 796 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHJ0577 | 10/04/2024 09:51 | FPN |
| General Chemistry EPA 350.1 | Ammonia as N | A | 0.0880 | mg/L | | 1 | 0.0140 | 0.0400 | BHJ0718 | 10/08/2024 13:22 | AMM |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHJ0577 | 10/04/2024 09:51 | FPN |
| General Chemistry EPA 300.0 | Sulfate | A | 60.0 | mg/L | | 10 | 0.341 | 10.0 | BHJ0898 | 10/07/2024 15:11 | AGZ |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 496 | mg/L | | 1 | 10.0 | 10.0 | BHJ0586 | 10/07/2024 11:15 | JRU |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | 5.05 | mg/L | | 1 | 1.00 | 1.00 | BHJ0581 | 10/07/2024 09:54 | JRU |
| Field Hach 10360 | DO Field | N | 8.18 | mg/L | | 1 | 1.00 | 1.00 | BHJ0572 | 10/03/2024 12:05 | MLU |
| Field SM 4500-H+ B | pH | A | 7.39 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHJ0572 | 10/03/2024 12:05 | MLU |
| Field SM 2550 B | Temperature °C Field | N | 26.0 | °C | | 1 | 1.00 | 1.00 | BHJ0572 | 10/03/2024 12:05 | MLU |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.00 | mg/L | U | 1 | 0.25 | 0.25 | BHJ0572 | 10/03/2024 15:15 | MJC |

**CH MUD- WET Cu-WER - Effluent-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Outfall 001 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1015-01RE1 — **Collected by:** Mario Urquiza

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry SM 5310 C | Total Organic Carbon (TOC) (Rerun) | A | 8.54 | mg/L | | 1 | 0.451 | 1.00 | BHJ2554 | 10/18/2024 22:25 | SCH |

**CH MUD- WET Cu-WER - Effluent-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Outfall 001 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1015-01RE3 — **Collected by:** Mario Urquiza

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry, Dissolved SM | Dissolved Organic Carbon (Rerun) | A | 7.58 | mg/L | CB | 1 | 0.451 | 1.00 | BHJ3274 | 10/25/2024 05:47 | MLB |

**CH MUD- WET Cu-WER- ReceivingH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Receiving Water — **Date Collected:** 10/02/2024 13:15
**Lab Sample ID:** 24J1570-01 — **Collected by:** Francisco Gutierrez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Calcium | A | 34.4 | mg/L | | 10 | 0.117 | 1.00 | BHJ0500 | 10/08/2024 09:45 | JKC |
| Metals, Total EPA 200.8 | Copper | A | 0.00519 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ0500 | 10/08/2024 09:42 | JKC |
| Metals, Total SM 2340 B | Total hardness as CaCO3 | | 112 | mg/L | | 10 | 0.298 | 2.91 | [CALC] | 10/08/2024 09:45 | JKC |
| Metals, Total EPA 200.8 | Magnesium | A | 6.45 | mg/L | | 1 | 0.00134 | 0.100 | BHJ0500 | 10/08/2024 09:42 | JKC |
| Metals, Total EPA 200.8 | Potassium | A | 12.1 | mg/L | | 1 | 0.00313 | 0.100 | BHJ0500 | 10/08/2024 09:42 | JKC |
| Metals, Total EPA 200.8 | Sodium | A | 95.7 | mg/L | | 10 | 0.0241 | 2.00 | BHJ0500 | 10/08/2024 09:45 | JKC |
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00468 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:42 | JKC |
| General Chemistry SM 2320 B | Alkalinity as CaCO3 | A | 191 | mg/L | | 1 | 10.0 | 10.0 | BHJ0372 | 10/03/2024 09:55 | FPN |

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## Chemical Analyses
(Continued)

**CH MUD- WET Cu-WER- ReceivingH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Receiving Water (Continued) — **Date Collected:** 10/02/2024 13:15
**Lab Sample ID:** 24J1570-01 — **Collected by:** Francisco Gutierrez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Chloride | A | 108 | mg/L | CB | 10 | 0.345 | 10.0 | BHJ0552 | 10/03/2024 23:42 | AGZ |
| General Chemistry SM 2510 B | Conductivity | A | 874 | umhos/cm @ 25 °C | | 1 | 2.00 | 2.00 | BHJ0372 | 10/03/2024 09:55 | FPN |
| General Chemistry, Dissolved SM | Dissolved Organic Carbon | A | 6.99 | mg/L | V | 1 | 0.451 | 1.00 | BHJ1813 | 10/15/2024 05:13 | SCH |
| General Chemistry EPA 350.1 | Ammonia as N | A | 0.0960 | mg/L | | 1 | 0.0140 | 0.0400 | BHJ0498 | 10/03/2024 15:45 | NAZ |
| General Chemistry SM 2520 B | Salinity | N | <1.00 | Salinity units | U | 1 | 1.00 | 1.00 | BHJ0372 | 10/03/2024 09:55 | FPN |
| General Chemistry SM 2540 C | Residue-filterable (TDS) | A | 605 | mg/L | | 1 | 10.0 | 10.0 | BHJ0386 | 10/04/2024 13:39 | BP |
| General Chemistry SM 5310 C | Total Organic Carbon (TOC) | A | 6.99 | mg/L | | 1 | 0.451 | 1.00 | BHJ1812 | 10/15/2024 05:13 | SCH |
| General Chemistry SM 2540 D | Residue-nonfilterable (TSS) | A | 93.3 | mg/L | | 1 | 1.00 | 1.00 | BHJ0399 | 10/04/2024 09:35 | BP |
| Field Hach 10360 | DO Field | N | 9.68 | mg/L | | 1 | 1.00 | 1.00 | BHJ0388 | 10/02/2024 13:15 | FG |
| Field SM 4500-H+ B | pH | A | 8.09 | pH Units @ 25 °C | | 1 | 1.00 | 1.00 | BHJ0388 | 10/02/2024 13:15 | FG |
| Field SM 2550 B | Temperature °C Field | N | 21.9 | °C | | 1 | 1.00 | 1.00 | BHJ0388 | 10/02/2024 13:15 | FG |
| Field SM 4500-Cl G | Total Residual Chlorine | A | 0.00 | mg/L | U | 1 | 0.25 | 0.25 | BHJ0388 | 10/02/2024 13:15 | FG |

**CH MUD- WET Cu-WER- ReceivingH2O-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** Receiving Water — **Date Collected:** 10/02/2024 13:15
**Lab Sample ID:** 24J1570-01RE1 — **Collected by:** Francisco Gutierrez

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry EPA 300.0 | Sulfate (Rerun) | A | 36.4 | mg/L | | 10 | 0.341 | 10.0 | BHJ0683 | 10/04/2024 23:16 | AGZ |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1011 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-01 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHJ1893 | 10/17/2024 14:24 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1012 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-02 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00658 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1330 | 10/11/2024 09:46 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1013 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-03 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00736 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 09:40 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1014 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-04 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0115 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 15:41 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1015 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-05 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0148 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1893 | 10/17/2024 14:26 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1016 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-06 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0189 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1893 | 10/17/2024 14:28 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1017 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-07 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0278 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1893 | 10/17/2024 14:30 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1018 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-08 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0367 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1893 | 10/17/2024 14:33 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1019 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-09 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0447 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:09 | ISS |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1020 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-10 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0613 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 15:43 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1021 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-11 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | <0.00250 | mg/L | U | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 15:46 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1022 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-12 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00459 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 09:43 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1023 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-13 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00580 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/12/2024 11:22 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1024 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-14 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00810 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 16:00 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1025 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-15 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0111 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 16:08 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1026 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-16 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0129 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/12/2024 11:23 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1027 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-17 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0225 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:11 | ISS |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1028 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-18 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0277 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 16:11 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1029 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-19 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0354 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:24 | ISS |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1030 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-20 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0479 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/12/2024 11:25 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1031 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-21 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:02 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1032 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-22 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00550 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:05 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1033 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-23 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00727 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:07 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1034 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-24 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00921 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:09 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1035 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-25 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0125 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:11 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1036 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-26 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0170 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:13 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1037 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-27 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0217 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:16 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1038 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-28 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0280 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 12:18 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1039 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-29 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0387 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:40 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1040 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-30 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0506 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:48 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1041 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-31 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | <0.00200 | mg/L | U | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:51 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1042 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-32 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00454 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:53 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1043 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-33 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00486 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:55 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1044 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-34 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00737 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:57 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1045 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-35 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00835 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:25 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1046 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-36 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0101 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:27 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1047 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-37 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0182 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:29 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1048 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-38 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0200 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:31 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1049 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-39 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0268 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:32 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 1050 — **Date Collected:** 10/03/2024 12:21
**Lab Sample ID:** 24J1814-40 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0365 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1331 | 10/11/2024 13:59 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2011 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-41 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00709 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/12/2024 11:27 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2012 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-42 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0222 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 09:57 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2013 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-43 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0287 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 09:59 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2014 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-44 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0366 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:27 | ISS |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2015 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-45 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0460 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:35 | ISS |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2016 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-46 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0617 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:37 | ISS |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2017 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-47 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0810 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/12/2024 11:29 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2018 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-48 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0995 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:39 | ISS |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2019 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-49 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.144 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:42 | ISS |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2020 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-50 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.187 | mg/L | | 5 | 0.000910 | 0.0125 | BHJ1574 | 10/14/2024 15:05 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2021 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-51 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.00622 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 10:04 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2022 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-52 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0196 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1893 | 10/18/2024 11:44 | ISS |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2023 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-53 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0240 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 10:13 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2024 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-54 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0340 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 16:13 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2025 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-55 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0422 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/14/2024 10:47 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2026 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-56 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0520 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1574 | 10/14/2024 10:15 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2027 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-57 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.0672 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1700 | 10/14/2024 16:16 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2028 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-58 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0908 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1331 | 10/12/2024 13:56 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2029 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-59 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.113 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 13:53 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2030 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-60 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.147 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 13:55 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2031 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-61 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00630 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 13:58 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2032 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-62 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0207 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:00 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2033 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-63 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0254 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:03 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2034 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-64 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0322 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:16 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2035 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-65 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0405 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:19 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2036 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-66 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0558 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:21 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2037 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-67 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0703 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:24 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2038 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-68 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.104 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/14/2024 10:49 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2039 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-69 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.145 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1333 | 10/14/2024 10:51 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2040 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-70 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Total EPA 200.8 | Copper | A | 0.240 | mg/L | | 5 | 0.000910 | 0.0100 | BHJ1330 | 10/11/2024 09:50 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2041 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-71 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.00576 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:34 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2042 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-72 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0185 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:37 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2043 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-73 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0202 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:34 | JKC |

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## Chemical Analyses
(Continued)

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2044 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-74 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0292 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:51 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2045 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-75 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0342 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:53 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2046 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-76 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0479 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:55 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2047 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-77 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0555 | mg/L | | 1 | 0.000182 | 0.00250 | BHJ1572 | 10/12/2024 14:36 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2048 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-78 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0722 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 14:58 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2049 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-79 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.0948 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 15:00 | JKC |

**CH MUD- WER- Cu analysis-1** — **Sample Matrix:** Aqueous
**Client Sample ID:** 2050 — **Date Collected:** 10/03/2024 5:00
**Lab Sample ID:** 24J1814-80 — **Collected by:** Theran Gay

| Method | Analyte | * | Results | Units | Q | DF | SDL | LRL | Batch | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals, Dissolved EPA 200.8 | Copper | A | 0.131 | mg/L | | 1 | 0.000182 | 0.00200 | BHJ1571 | 10/14/2024 15:02 | JKC |

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10377 Stella Link Road
Houston, TX 77025-5445

**Reported:**
01/17/2025 17:29

## Sample Condition Checklist

**Work Order: 24G1018**

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

**Work Order: 24H3618**

| 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: 24H3697**

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

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**Work Order: 24H3899**

**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: 24H4252**

**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: 24J0987**

**Check Points**

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

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**Work Order: 24J0988**

**Check Points**

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

**Work Order: 24J1015**

**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: 24J1570**

**Check Points**

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

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**Work Order: 24J1814**

**Check Points**

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

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**Reported:**
01/17/2025 17:29

## Term and Qualifier Definitions

| Item | Definition |
|---|---|
| A | Detection limit elevated due to abundance of non-target analyte. |
| B1 | Associated method blank is lower than the established quality control criteria. |
| CB | Associated calibration blank QC is outside the established quality control criteria - data not affected and acceptable to report. |
| CB1 | Associated calibration blank QC is outside the established quality control criteria |
| 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. |
| U | Non-detected compound. |
| V | Analyte was detected in both sample and method blank. |
| RPD | Relative Percent Difference |
| %REC | Percent Recovery |
| Source | Sample that was matrix spiked or duplicated |
| * | A = Accredited, N = Not Accredited or Accreditation not available |
| DF | Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content |
| MDL | Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B. |
| SDL | Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL. |
| MRL | Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard. |
| LRL | Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL. |

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**24G1018**

MATT

A&S Engineers, Inc.
Anna M. Hunter, E.I.T.
10377 Stella Link Road
Houston, TX 77025-5445
Phone: (713) 942-2700

**Project Name** : CH MUD- WER- Cu analysis-1

**Schedule Comments:**

**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041
Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016
Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24G1018-01 | 1011 | | 8/22/24 1336 | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-02 | 1012 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-03 | 1013 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-04 | 1014 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-05 | 1015 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-06 | 1016 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-07 | 1017 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-08 | 1018 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-09 | 1019 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-10 | 1020 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-11 | 1021 | | 8/22/24 1336 | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-12 | 1022 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-13 | 1023 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-14 | 1024 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-15 | 1025 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-16 | 1026 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-17 | 1027 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-18 | 1028 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-19 | 1029 | | " | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |

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**24G1018**

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| | |
|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WER- Cu analysis-1<br>**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 |

**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24G1018-20 | 1030 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-21 | 1031 | | 8/22/24 1336 | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-22 | 1032 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-23 | 1033 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-24 | 1034 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-25 | 1035 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-26 | 1036 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-27 | 1037 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-28 | 1038 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-29 | 1039 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-30 | 1040 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-31 | 1041 | | 8/22/24 1345 | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-32 | 1042 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-33 | 1043 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-34 | 1044 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-35 | 1045 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-36 | 1046 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-37 | 1047 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-38 | 1048 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-39 | 1049 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |

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|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WER- Cu analysis-1<br>**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 |

**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24G1018-40 | 1050 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-41 | 2011 | | 8/22/24 1345 | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-42 | 2012 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-43 | 2013 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-44 | 2014 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-45 | 2015 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-46 | 2016 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-47 | 2017 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-48 | 2018 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-49 | 2019 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-50 | 2020 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-51 | 2021 | | 8/23/24 1345 | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-52 | 2022 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-53 | 2023 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-54 | 2024 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-55 | 2025 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-56 | 2026 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-57 | 2027 | | | AQ | Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-58 | 2028 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-59 | 2029 | | | AQ | Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |

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**24G1018**

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| | |
|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WER- Cu analysis-1<br>**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 |

**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24G1018-60 | 2030 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-61 | 2031 | | 8/22/24 1345 | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-62 | 2032 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-63 | 2033 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-64 | 2034 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-65 | 2035 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-66 | 2036 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-67 | 2037 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-68 | 2038 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-69 | 2039 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24G1018-70 | 2040 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | Cancelled |
| 24G1018-71 | 2041 | | 8/22/24 1345 | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-72 | 2042 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-73 | 2043 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-74 | 2044 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-75 | 2045 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-76 | 2046 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-77 | 2047 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-78 | 2048 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24G1018-79 | 2049 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |

# CHAIN OF CUSTODY RECORD

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**24G1018**

**(Continued)**

| | |
|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WER- Cu analysis-1<br>**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 |

**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24G1018-80 | 2050 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | Cancelled |

**Field Remarks:**

**Preservation: (Circle and Write ID)** H2SO4 (HNO3) NaOH Other: 2400751

| | | | | |
|---|---|---|---|---|
| Sampler (Signature) | Relinquished By: (Signature) | Date/Time 8/26/24 1175 | Received By: (Signature) | Date/Time |
| Print Name: Thomas Gay | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation: Fox Lab | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | Date/Time 8/26/24 1135 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 20.6 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: SIT00114WS

PM Kits

# 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-C24-00185



**24H3618**

| | | |
|---|---|---|
| **Lab PM** : Matt Matthews | **Project Name** : CH MUD- WET Cu-WER - Effluent-1 | **Schedule Comments:** |
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>(Opr.)-Mr. Dennis Wright, 281.734.5285 (mbl)<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 | NWDLS Samples the |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24H3618-01 | Outfall 001 | 8-20-24/1200 | 8-21-24/1200 | AQ Composite | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C PreClean HDPE 250mL HNO3 after Fil<br>D HDPE 250mL<br>E Glass 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G HDPE 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Cube 20L | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 8.28<br>pH Field 8.15<br>Temp C Field 36.3<br>Total Chlorine Residual WW Field 0.04 |

**Field Remarks:**

**Lab Preservation: (Circle and Write ID Below)** (H2SO4) 2405105 (HNO3) 2400751 NaOH Other:

| | | | | |
|---|---|---|---|---|
| Sampler (Signature) | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Print Name Fernanda Chavez | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation NWDLS | Relinquished To Lab By: (Signature) | Date/Time 8-21-24/1350 | Received for Laboratory By: (Signature) DJK | Date/Time 8/21/24/1350 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 11.6 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 230016882

Tox Weekly Kits - Deliver

# 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-C24-00185



**24H3697**

| | |
|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WET Cu-WER- LabH2O-1<br>**Project Comments**: |

**Schedule Comments:**

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24H3697-01 | Lab Water | | 8-21-24<br>1515 | AQ Grab | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C HDPE 250mL<br>D PreClean HDPE 250mL HNO3 after Fil<br>E Glass 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G Glass 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Cube 10L | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 8.44<br>pH Field 7.36<br>Temp C Field 25.0<br>Total Chlorine Residual WW Field 0.00 |

# 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-C24-00185



**24H3697**

**(Continued)**

| | | |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WET Cu-WER- LabH2O-1<br>**Project Comments:** | **Schedule Comments:** |

**Field Remarks:**

**Preservation:** (Circle and Write ID) H2SO4 2401096 HNO3 2400751 NaOH Other:

| Sampler (Signature) | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
|---|---|---|---|---|
| Print Name: Sherman Gray | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation: NDC Labs | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | Date/Time: 8/21/24/1647 |
| | | 8/21/24 1647 | | |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 25.4 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 51700114WS

Tox Weekly Kits - Composites

# 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-C24-00185



**24H3899**

| **Lab PM** : Matt Matthews | **Project Name** : CH MUD- WET Cu-WER- ReceivingH2O-1 | **Schedule Comments:** |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Comments**: Collection point: Horsepen Creek trail crossing, on Huffmeister Rd., approximately 0.5 miles north of FM 529 (Spencer Rd.). | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24H3899-01 | Receiving Water | | 8-21-24/0825 | AQ Grab | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C HDPE 250mL<br>D PreClean HDPE 250mL HNO3 after Fil<br>E Glass 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G Glass 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Bucket 5 Gal<br>K HDPE Bucket 5 Gal<br>L HDPE Bucket 5 Gal | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 8.33<br>pH Field 7.55<br>Temp C Field 31.1<br>Total Chlorine 0.14<br>Residual WW Field |

**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 Olvera | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation MWDLS | Relinquished To Lab By: (Signature) | Date/Time 8-21-24/1350 | Received for Laboratory By: (Signature) | Date/Time 8/21/24/1350 |

Custody Seal : Yes / No COC Labels Agree: Yes / No Appropriate Volume: Yes / No Received on Ice: Yes / No Temperature: 39.1 °C

Container Intact : Yes / No Appropriate Containers: Yes / No Coolers Intact: Yes / No Samples Accepted: Yes / No Thermometer ID: 230067882

Cypress

# 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-C24-00185



**24H4252**

| | | |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WET Cu-WER- SD-1<br>**Project Comments**: | **Schedule Comments:** |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24H4252-01 | SD | | 8-21-24<br>1200 | AQ Grab | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C HDPE 250mL<br>D PreClean HDPE 250mL HNO3 after Fil<br>E HDPE 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G Glass 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Cube 10L | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 7.07<br>pH Field 7.35<br>Temp C Field 29.8<br>Total Chlorine Residual WW Field 0.04 |

# 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-C24-00185



**24H4252**

**(Continued)**

| | | |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WET Cu-WER- SD-1 | **Schedule Comments:** |
| | **Project Comments:** | |

**Field Remarks:**

**Preservation: (Circle and Write ID)** H2SO4 2401096 HNO3 2400751 NaOH Other:

| | | | | |
|---|---|---|---|---|
| Sampler (Signature) | Relinquished By: (Signature) | Date/Time 8/21/24 1642 | Received By: (Signature) | Date/Time |
| Print Name | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | Date/Time 8/21/24 1642 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 2.5.8 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 5170114WS

Tox Weekly Kits - Composites

wko_NWDLS_COC_noDate_LS version 4: 02/22/2021

# 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-C24-00185



**24J0987**

| **Lab PM** : Matt Matthews | **Project Name** : CH MUD- WET Cu-WER- LabH2O-1 | **Schedule Comments:** |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Comments:** | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24J0987-01 | Lab Water | | 10-3-24 1221 | AQ Grab | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C HDPE 250mL<br>D PreClean HDPE 250mL HNO3 after Fil<br>E Glass 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G Glass 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Cube 10L | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 8.38<br>pH Field 7.72<br>Temp C Field 24.4<br>Total Chlorine 0.00<br>Residual WW Field TRC 10-3-24 |

**Field Remarks:**

**Lab Preservation:** (Circle and Write ID Below) H2SO4 2401096 HNO3 2404969 NaOH Other:

| Sampler (Signature) | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
|---|---|---|---|---|
| Marissa Chitolie | Marissa Chitolie | 10-3-24/1320 | | |
| **Print Name** | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Marissa Chitolie | | | | |
| **Affiliation** | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | Date/Time |
| NWDLS | | | JLH | 1320 10/3/24 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 26.6 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 5170101 2WS

Tox Weekly Kits - Composites

# 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-C24-00185



**24J0988**

| **Lab PM** : Matt Matthews | **Project Name** : CH MUD- WET Cu-WER- SD-1 | **Schedule Comments:** |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Comments**: | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24J0988-01 | SD | | 10-3-24<br>0500 | AQ Grab | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C HDPE 250mL<br>D PreClean HDPE 250mL HNO3 after Fil<br>E HDPE 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G Glass 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Cube 10L | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 9.58<br>pH Field 7.62<br>Temp C Field 11.3<br>Total Chlorine 0.03<br>Residual WW Field<br>TRG<br>10-3-24 |

**Field Remarks:**

**Lab Preservation: (Circle and Write ID Below)** (H2SO4) 2401096 (HNO3) 2404969 NaOH Other:

| Sampler (Signature) | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
|---|---|---|---|---|
| | | 10-3-24 1617 | | |
| Print Name: Theran Gray | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation: TRG Lab | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | Date/Time 1617 |
| | | | JLH | 10/3/24 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 16.6 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 5170011205

Tox Weekly Kits - Composites

# 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-C24-00185



**24J1015**

| | | |
|---|---|---|
| **Lab PM** : Matt Matthews | **Project Name** : CH MUD- WET Cu-WER - Effluent-1 | **Schedule Comments:** |
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016_<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24J1015-01 | Outfall 001 | 10.2.24<br>0500 | 10.3.24<br>0500<br>12:05 | AQ Composite | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C PreClean HDPE 250mL HNO3 after Fil<br>D HDPE 250mL<br>E Glass 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G HDPE 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Cube 20L | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 8.18<br>pH Field 7.89<br>Temp C Field 26°C<br>Total Chlorine 0.00<br>Residual WW Field<br>TRC: MJC 10-3-24 |

**Field Remarks:**

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

| | | | | |
|---|---|---|---|---|
| Sampler (Signature) Mario Urguiza | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Print Name Mario Urguiza | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation NWDLS | Relinquished To Lab By: (Signature) Mario Urguiza | Date/Time 10.3.24 15:15 | Received for Laboratory By: (Signature) MC | Date/Time 1515 10.3.24 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 6.2 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 230067882

Tox Weekly Kits - Deliver

# CHAIN OF CUSTODY RECORD

NWDLS North Water District Laboratory Services, Inc.

**North Water District Laboratory Services**
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ TX-C24-00185



**24J1570**

| **Lab PM** : Matt Matthews | **Project Name** : CH MUD- WET Cu-WER- ReceivingH2O-1 | **Schedule Comments:** |
|---|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Comments**: Collection point: Horsepen Creek trail crossing, on Huffmeister Rd., approximately 0.5 miles north of FM 529 (Spencer Rd.). | |

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24J1570-01 | Receiving Water | | 10·2·24 / 1315 | AQ Grab | A HDPE 250mL<br>B PreCleaned HDPE 250mL HNO3<br>C HDPE 250mL<br>D PreClean HDPE 250mL HNO3 after Fil<br>E Glass 250mL H2SO4 after filtration<br>F HDPE 250mL H2SO4<br>G Glass 250mL<br>H Glass 250mL H2SO4<br>I HDPE 1L<br>J HDPE Bucket 5 Gal<br>K HDPE Bucket 5 Gal<br>L HDPE Bucket 5 Gal | CD 2DD-2002.0 4°C<br>Calcium ICPMS 200.8 HNO3<br>Copper D ICPMS 200.8 HNO3<br>Copper ICPMS 200.8 HNO3<br>Hardness-2340 B-ICPMS [Group Analysis]<br>Magnesium ICPMS 200. HNO3<br>Potassium ICPMS 200.8 HNO3<br>Sodium ICPMS 200.8 HNO3<br>Alkalinity-2320 4°C<br>Chloride IC 300.0 4°C<br>Conductivity-2510 4°C<br>DOC-5310 C H2SO4 4°C<br>NH3-N SEAL-350.1 H2SO4 4°C<br>Salinity-2520 4°C<br>Sulfate IC 300.0 4°C<br>TDS-2540 4°C<br>TOC-5310 C H2SO4 4°C<br>TSS-2540 4°C | DO Field 9.68<br>pH Field 8.09<br>Temp C Field 21.9°c<br>Total Chlorine Residual WW Field 0.0 |

**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: 10-2-24/1538 | Received for Laboratory By: (Signature): SJK | Date/Time: 10/2/24/1530 |

Custody Seal: Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 7.6 °C

Container Intact: Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 51700114WS

Cypress

# 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-C24-00185



**24J1814**

Matt

A&S Engineers, Inc.
Anna M. Hunter, E.I.T.
10377 Stella Link Road
Houston, TX 77025-5445
Phone: (713) 942-2700

**Project Name** : CH MUD- WER- Cu analysis-1

**Schedule Comments:**

**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041
Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016
Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700

| Sample ID | Collection Point | Date/Time Begin | Date/Time Sampled | Sample Type | Container | Analysis/Preservation | Field Results |
|---|---|---|---|---|---|---|---|
| 24J1814-01 | 1011 | — | 10-3-24 1121 | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-02 | 1012 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-03 | 1013 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-04 | 1014 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-05 | 1015 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-06 | 1016 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-07 | 1017 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-08 | 1018 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-09 | 1019 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-10 | 1020 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-11 | 1021 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-12 | 1022 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-13 | 1023 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-14 | 1024 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-15 | 1025 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-16 | 1026 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-17 | 1027 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-18 | 1028 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-19 | 1029 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |

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(Continued)

| | |
|---|---|
| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WER- Cu analysis-1<br>**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 |

**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24J1814-20 | 1030 | — | 10-3-24 /1221 | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-21 | 1031 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-22 | 1032 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-23 | 1033 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-24 | 1034 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-25 | 1035 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-26 | 1036 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-27 | 1037 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-28 | 1038 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-29 | 1039 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-30 | 1040 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-31 | 1041 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-32 | 1042 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-33 | 1043 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-34 | 1044 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-35 | 1045 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-36 | 1046 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-37 | 1047 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-38 | 1048 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-39 | 1049 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |

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| A&S Engineers, Inc.<br>Anna M. Hunter, E.I.T.<br>10377 Stella Link Road<br>Houston, TX 77025-5445<br>Phone: (713) 942-2700 | **Project Name** : CH MUD- WER- Cu analysis-1<br>**Project Comments**: C.H. MUD WWTF, 13450 Traders Village Dr., Houston, TX 77041<br>Dustin Roberts, (281)989-8464_(Plant Opr.)-R.J, (281) 734-6016<br>Copper WER Study, A&S Eng.- Anna Hunter, 713.942.2700 |

**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24J1814-40 | 1050 | — | 10-3-24 / 1221 | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-41 | 2011 | 10-2-24 / 0500 | 10-3-24 / 0500 | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-42 | 2012 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-43 | 2013 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-44 | 2014 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-45 | 2015 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-46 | 2016 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-47 | 2017 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-48 | 2018 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-49 | 2019 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-50 | 2020 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-51 | 2021 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-52 | 2022 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-53 | 2023 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-54 | 2024 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-55 | 2025 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-56 | 2026 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-57 | 2027 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper ICPMS 200.8 HNO3 | |
| 24J1814-58 | 2028 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-59 | 2029 | | | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper D ICPMS 200.8 HNO3 | |

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**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24J1814-60 | 2030 | 10-2-24/0500 | 10-3-24/0500 | AQ Grab | A PreCleaned HDPE 250mL HNO3 | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-61 | 2031 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-62 | 2032 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-63 | 2033 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-64 | 2034 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-65 | 2035 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-66 | 2036 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-67 | 2037 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-68 | 2038 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper ICPMS 200.8 HNO3 | |
| 24J1814-69 | 2039 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper ICPMS 200.8 HNO3 | |
| 24J1814-70 | 2040 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper ICPMS 200.8 HNO3 | |
| 24J1814-71 | 2041 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-72 | 2042 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-73 | 2043 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-74 | 2044 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-75 | 2045 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-76 | 2046 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-77 | 2047 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-78 | 2048 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |
| 24J1814-79 | 2049 | | | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |

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**Schedule Comments:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24J1814-80 | 2050 | 10-2-24/0500 | 10-3-24/0500 | AQ Grab | A PreClean HDPE 250mL HNO3 after Fil | Copper D ICPMS 200.8 HNO3 | |

**Field Remarks:**

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

| | | | | |
|---|---|---|---|---|
| Sampler (Signature) | Relinquished By: (Signature) | Date/Time 10-7-24 1110 | Received By: (Signature) | Date/Time |
| Print Name: Theran Gray | Relinquished By: (Signature) | Date/Time | Received By: (Signature) | Date/Time |
| Affiliation: TDX Lab | Relinquished To Lab By: (Signature) | Date/Time | Received for Laboratory By: (Signature) | Date/Time 10/7/24 1110 |

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: 22.6 °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: 51700114WS

PM Kits

| Client: | A&S-Chimney Hill-Copper WER Study #1 - **SD** | Permit No. | WQ0012304001 | Login No.: | 24-0443-1B |
|---|---|---|---|---|---|

BHH3440

48 h Acute *Ceriodaphnia dubia* Toxicity Test Condition Summary
Test Method EPA/821-R-02-012-2002.0; PBS&J SOP No. 4031

| | | | |
|---|---|---|---|
| Test Organism: | *Ceriodaphnia dubia* | Age Class: | < 24hrs |
| Test Type: | Acute Static (Copper WER) | Test Duration: | 48 h |
| Temperature: | 25 ± 1 | Photoperiod: | 16:8 h; ambient light; 50-100 ft-c |
| Test Chamber size: | 150 mL cups | Cleaning: | Cleaning not required |
| No. of Replicates: | 5 | No. organisms per Replicate: | 10 |
| Test Solution Volume | 75 mL (minimum) | Dilution Water: | see notes; Effluent (SD) |
| Renewal of test solution: | None | Aeration: | None |
| Feeding: | Prior to test set up | Food Type: | YCT and *Selenastrum* |
| Acceptability Criteria | ≥ 90% survival in control | Sample Holding Time Requirements: | WER testing to begin within 96h from time of effluent collection. |

| | | | | |
|---|---|---|---|---|
| Test Concentrations (ppb): | Control, 11, 15, 22, 31, 45, 64, 91, 130, 186 ppb Cu | | | |
| Organism Age/DOB: | <24h | 8-22-24 | Organism Source/batch log no.: | NWDLS Mass/24-0902 |

| | |
|---|---|
| Sample 1 Date/Time: | 8-21-24 / 1200 |

| | | | | |
|---|---|---|---|---|
| Test Initiation Date/Time: | 8-22-24 | 1345 | Test Initiation Initials: | TKH/MJC |
| Test Counts Date/Time: | 8-23-24 | 1345 | Test Counts Initials: | MJC |
| Test Termination Date/Time: | 8-24-24 | 1346 | Test Termination Initials: | ABH |

This test was conducted in accordance with the method standards or according to the exception(s) as noted:
**Test solution is copper-spiked simulated downstream water (SD); diluent is SD, control is SD.**

Comments:

Data Sheet Preparation: Initials: TKH/MJC Date: 8-24-24
End of Test Review: Initials: ABH Date: 8-24-24
TDS Data Entry: Initials: ML Date: 11-4-24

Final Review: (signature)

| Client: | A&S-Chimney Hill-Copper WER Study #1 - **SD** | Permit No. | WQ0012304001 | Login No. | 24-0443-1B |
|---|---|---|---|---|---|

## Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | Rep. | No. of Surviving Organisms | | | Conc. (ppb) | Rep. | No. of Surviving Organisms | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0 hr | 24 hr | 48 hr | | | 0 hr | 24 hr | 48 hr |
| Control (SD) | A | 10 | 10 | 10 | 45 | A | 10 | 10 | 9 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 9 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 8 | | E | 10 | 10 | 10 |
| 11 | A | 10 | 10 | 9 | 64 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 8 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 8 | | C | 10 | 10 | 9 |
| | D | 10 | 10 | 8 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 7 | | E | 10 | 10 | 10 |
| 15 | A | 10 | 8 | 6 | 91 | A | 10 | 3② | 5 |
| | B | 10 | 10 | 10 | | B | 10 | 3③ | 4 |
| | C | 10 | 10 | 10 | | C | 10 | 3 | 3 |
| | D | 10 | 10 | 10 | | D | 10 | 5 | 5 |
| | E | 10 | 10 | 10 | | E | 10 | 7 | 7 |
| 22 | A | 10 | 10 | 10 | 130 | A | 10 | 0 | 0 |
| | B | 10 | 10 | 9 | | B | 10 | 0 | 0 |
| | C | 10 | 10 | 10 | | C | 10 | 0 | 0 |
| | D | 10 | 10 | 10 | | D | 10 | 0 | 0 |
| | E | 10 | 10 | 10 | | E | 10 | 0 | 0 |
| 31 | A | 10 | 09 | 10 | 186 | A | 10 | 0 | 0 |
| | B | 10 | 10 | 10 | | B | 10 | 0 | 0 |
| | C | 10 | 10 | 10 | | C | 10 | 0 | 0 |
| | D | 10 | 09 | 10 | | D | 10 | 0 | 0 |
| | E | 10 | 10 | 10 | | E | 10 | 0 | 0 |

Comments: ① IE ABH 8-24-24 → [10]
② IE ABH 8-24-24 → [5]
③ IE ABH 8-24-24 → [4]

| Client: | A&S-Chimney Hill-Copper WER Study #1 - **SD** | Permit No. | WQ0012304001 | Login No.: | 24-0443-18 |
|---|---|---|---|---|---|

Water Quality Parameters- Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | pH | |
|---|---|---|
| | 0 hr ** | 48 hr |
| Cont. (SD) | 6.63/7.46 | 7.93 |
| 11 | 6.64/7.23 | 7.96 |
| 15 | 6.68/7.14 | 7.87 |
| 22 | 6.69/7.16 | 7.84 |
| 31 | 6.68/7.21 | 7.83 |
| 45 | 6.72/7.20 | 7.87 |
| 64 | 6.72/7.25 | 7.77 |
| 91 | 6.80/7.11 | 7.72 |
| 130 | 6.84/7.25 | 7.69 |
| 186 | 6.89/7.24 | 7.66 |
| Meter No. | 220 | 220 |
| Initials | TKH / YHE | ABH / GIP |

| Conc. (ppb) | Temperature °C * | |
|---|---|---|
| | 0 hr | 48 hr |
| Cont. (SD) | 24.5 / 24.9 | 24.8 / 25.2 |
| 11 | 24.5 / 24.9 | 24.8 / 25.2 |
| 15 | 24.5 / 24.9 | 24.8 / 25.2 |
| 22 | 24.6 / 25.0 | 24.9 / 25.3 |
| 31 | 24.6 / 25.0 | 24.9 / 25.3 |
| 45 | 24.7 / 25.1 | 24.8 / 25.2 |
| 64 | 24.8 / 25.2 | 24.8 / 25.2 |
| 91 | 24.9 / 25.3 | 24.8 / 25.2 |
| 130 | 25.1 / 25.5 | 24.9 / 25.3 |
| 186 | 25.3 / 25.7 | 25.0 / 25.4 |
| Therm. No. | YSI 7 | YSI 7 |
| Initials | TKH / YHE | ABH / GIP |

| Conc. (ppb) | Dissolved Oxygen (mg/L) | |
|---|---|---|
| | 0 hr | 48 hr |
| Cont. (SD) | 8.12 | 8.61 |
| 11 | 8.10 | 8.60 |
| 15 | 8.10 | 8.58 |
| 22 | 8.10 | 8.49 |
| 31 | 8.12 | 8.48 |
| 45 | 8.13 | 8.43 |
| 64 | 8.15 | 8.40 |
| 91 | 8.19 | 8.34 |
| 130 | 8.24 | 8.29 |
| 186 | 8.29 | 8.25 |
| Meter No. | YSI 7 | YSI 7 |
| Initials | TKH / YHE | ABH / GIP |

| Conc. (ppb) | Conductivity (‰) |
|---|---|
| | 0 hr |
| Cont. (SD) | 800 |
| 11 | 800 |
| 15 | 800 |
| 22 | 800 |
| 31 | 800 |
| 45 | 810 |
| 64 | 800 |
| 91 | 800 |
| 130 | 800 |
| 186 | 810 |
| Meter No. | 221 |
| Initials | TKH / YHE |

Comments: *Correction factor of 0.4°C, temperatures written Observed/Corrected. -ABH 8/20/24

** Initial pH is recorded and then the pH after adjustment; TKH 8/27/24

| Client: | A&S-Chimney Hill-Copper WER Study #1 - **LW** | Permit No. | WQ0012304001 | Login No. | 24-0443 |
|---|---|---|---|---|---|

BHH3441

| 48 h Acute *Ceriodaphnia dubia* Toxicity Test Condition Summary<br>Test Method EPA/821-R-02-012-2002.0; PBS&J SOP No. 4031 | | | |
|---|---|---|---|
| Test Organism: | *Ceriodaphnia dubia* | Age Class: | < 24hrs |
| Test Type: | Acute Static (Copper WER) | Test Duration: | 48 h |
| Temperature: | 25 ± 1 | Photoperiod: | 16:8 h; ambient light; 50-100 ft-c |
| Test Chamber size: | 150 mL cups | Cleaning: | Cleaning not required |
| No. of Replicates: | 5 | No. organisms per Replicate: | 10 |
| Test Solution Volume | 75 mL (minimum) | Dilution Water: | see notes |
| Renewal of test solution: | None | Aeration: | None |
| Feeding: | Prior to test set up | Food Type: | YCT and *Selenastrum* |
| Acceptability Criteria | ≥ 90% survival in control | Sample Holding Time Requirements: | WER testing to begin within 96h from time of effluent collection. |

| | | | | |
|---|---|---|---|---|
| Test Concentrations (ppb): | Control, 7, 10, 15, 21, 30, 42, 61, 87, 124 ppb Cu | | | |
| Organism Age/DOB: | <24h | 8-22-24 | Organism Source/Batch log no. | NWDLS/24-0902 |

| | |
|---|---|
| Sample 1 Date/Time: | 8-22-24 / 1330 |

| | | | | |
|---|---|---|---|---|
| Test Initiation Date/Time: | 8-22-24 | 1336 | Test Initiation Initials: | MJC / TRG |
| Test Counts Date/Time: | 8-23-24 | 1325 | Test Counts Initials: | TPG |
| Test Termination Date/Time: | 8-24-24 | 1337 | Test Termination Initials: | ABH |

This test was conducted in accordance with the method standards or according to the exception(s) as noted:
**Test solution is copper-spiked laboratory water (LW); diluent is LW, control is LW.**

Comments: (1) IE ABH 8/27/24 → [24-0443-1A1]

Data Sheet Preparation: Initials: TRG/ABH Date: 8-24-24
End of Test Review: Initials: ABH Date: 8-24-24
TDS Data Entry: Initials: TRL Date: 11-4-24

Final Review: (signature)

| Client: | A&S-Chimney Hill-Copper WER Study #1 - **LW** | Permit No. | WQ0012304001 | Login No. | ~~24-0443~~ ① |
|---|---|---|---|---|---|

## Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | Rep. | No. of Surviving Organisms | | | Conc. (ppb) | Rep. | No. of Surviving Organisms | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0 hr | 24 hr | 48 hr | | | 0 hr | 24 hr | 48 hr |
| Control (LW) | A | 10 | 10 | 10 | 30 | A | 10 | 0 | 0 |
| | B | 10 | 10 | 10 | | B | 10 | 1 | 0 |
| | C | 10 | 10 | 10 | | C | 10 | 0 | 0 |
| | D | 10 | 10 | 10 | | D | 10 | 0 | 0 |
| | E | 10 | 10 | 10 | | E | 10 | 0 | 0 |
| 7 | A | 10 | 10 | 10 | 42 | A | 10 | 0 | 0 |
| | B | 10 | 10 | 10 | | B | 10 | 0 | 0 |
| | C | 10 | 10 | 9 | | C | 10 | 0 | 0 |
| | D | 10 | 10 | 10 | | D | 10 | 0 | 0 |
| | E | 10 | 10 | 10 | | E | 10 | 0 | 0 |
| 10 | A | 10 | 10 | 7 | 61 | A | 10 | 0 | 0 |
| | B | 10 | 10 | 4 | | B | 10 | 0 | 0 |
| | C | 10 | 10 | 9 | | C | 10 | 0 | 0 |
| | D | 10 | 10 | 3 | | D | 10 | 0 | 0 |
| | E | 10 | 10 | 2 | | E | 10 | 0 | 0 |
| 15 | A | 10 | 4 | 0 | 87 | A | 10 | 0 | 0 |
| | B | 10 | 7 | 0 | | B | 10 | 0 | 0 |
| | C | 10 | 4 | 0 | | C | 10 | 0 | 0 |
| | D | 10 | 4 | 0 | | D | 10 | 0 | 0 |
| | E | 10 | 3 | 0 | | E | 10 | 0 | 0 |
| 21 | A | 10 | 0 | 0 | 124 | A | 10 | 0 | 0 |
| | B | 10 | 0 | 0 | | B | 10 | 0 | 0 |
| | C | 10 | 1 | 0 | | C | 10 | 0 | 0 |
| | D | 10 | 1 | 0 | | D | 10 | 0 | 0 |
| | E | 10 | 0 | 0 | | E | 10 | 0 | 0 |

Comments: ① IE ABII 8/27/24 → [24-0443-1A]

| Client: | A&S-Chimney Hill-Copper WER Study #1 - **LW** | Permit No. | WQ0012304001 | Login No.: | ~~24-0443~~ (2) |
|---|---|---|---|---|---|

Water Quality Parameters- Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | pH | |
|---|---|---|
| | 0 hr | 48 hr |
| Cont. (LW) | 7.66 | 7.64 |
| 7 | 7.71 | 7.67 |
| 10 | 7.72 | 7.68 |
| 15 | 7.70 | 7.70 |
| 21 | 7.70 | 7.71 |
| 30 | 7.69 | 7.72 |
| 42 | 7.67 | 7.72 |
| 61 | 7.64 | 7.73 |
| 87 | 7.60 | 7.73 |
| 124 | 7.59 | 7.73 |
| Meter No. | 220 | 220 |
| Initials | TRC / YHE | ABH / CJP |

| Conc. (ppb) | Temperature °C * | |
|---|---|---|
| | 0 hr | 48 hr |
| Cont. (LW) | 24.5 / 24.9 | 24.6 / 25.0 |
| 7 | 24.5 / 24.9 | 24.7 / 25.1 |
| 10 | 24.6 / 25.0 | 24.8 / 25.2 |
| 15 | 24.6 / 25.0 | 24.9 / 25.3 |
| 21 | 24.7 / 25.1 | 24.9 / 25.3 |
| 30 | 24.8 / 25.2 | 25.0 / 25.4 |
| 42 | 24.8 / 25.2 | 24.8 / 25.2 |
| 61 | 24.9 / 25.3 | 24.9 / 25.3 |
| 87 | ~~25.0~~ (1) / 25.4 | 25.0 / 25.4 |
| 124 | 25.2 / 25.6 | 25.2 / 25.6 |
| Therm. No. | YSI 7 | YSI 7 |
| Initials | TRC / YHE | ABH / CJP |

| Conc. (ppb) | Dissolved Oxygen (mg/L) | |
|---|---|---|
| | 0 hr | 48 hr |
| Cont. (LW) | 8.49 | 8.43 |
| 7 | 8.49 | 8.38 |
| 10 | 8.49 | 8.32 |
| 15 | 8.47 | 8.29 |
| 21 | 8.47 | 8.26 |
| 30 | 8.47 | 8.25 |
| 42 | 8.47 | 8.27 |
| 61 | 8.45 | 8.27 |
| 87 | 8.45 | 8.27 |
| 124 | 8.49 | 8.23 |
| Meter No. | YSI 7 | YSI 7 |
| Initials | TRC / YHE | ABH / CJP |

| Conc. (ppb) | Conductivity (‰) |
|---|---|
| | 0 hr |
| Cont. (LW) | 350 |
| 7 | 350 |
| 10 | 350 |
| 15 | 350 |
| 21 | 350 |
| 30 | 350 |
| 42 | 350 |
| 61 | 350 |
| 87 | 350 |
| 124 | 350 |
| Meter No. | 221 |
| Initials | TRC / YHE |

Comments: * Correction factor of 0.4 °C, temperatures written observed/Corrected. - ABH 8/20/24
(1) IE YHE 8-22-24 → [25.0]
(2) IE ABH 8/27/24 → [24-0443-1A]

| Client: | A&S-Chimney Hill-Copper WER Study #2 - **LW** | Permit No. | WQ0012304001 | Login No.: | 24-0702 |
|---|---|---|---|---|---|

BHJ1104

48 h Acute *Ceriodaphnia dubia* Toxicity Test Condition Summary
Test Method EPA/821-R-02-012-2002.0; PBS&J SOP No. 4031

| | | | |
|---|---|---|---|
| Test Organism: | *Ceriodaphnia dubia* | Age Class: | < 24hrs |
| Test Type: | Acute Static (Copper WER) | Test Duration: | 48 h |
| Temperature: | 25 ± 1 | Photoperiod: | 16:8 h; ambient light; 50-100 ft-c |
| Test Chamber size: | 150 mL cups | Cleaning: | Cleaning not required |
| No. of Replicates: | 5 | No. organisms per Replicate: | 10 |
| Test Solution Volume: | 75 mL (minimum) | Dilution Water: | see notes |
| Renewal of test solution: | None | Aeration: | None |
| Feeding: | Prior to test set up | Food Type: | YCT and *Selenastrum* |
| Acceptability Criteria | ≥ 90% survival in control | Sample Holding Time Requirements: | WER testing to begin within 96h from time of effluent collection. |

| | | | | |
|---|---|---|---|---|
| Test Concentrations (ppb): | Control, 6, 8, 11, 15, 20, 26, 35, 46, 62 ppb Cu | | | |
| Organism Age/DOB: | < 1 day | 10-4-24 | Organism Source: | NWDLS 24-1023 |

| | |
|---|---|
| Sample 1 Date/Time: | 10/3/24 ~~@ 0500~~ ① |

| | | | | |
|---|---|---|---|---|
| Test Initiation Date/Time: | 10-4-24 | 1345 | Test Initiation Initials: | FJA / KAO |
| Test Counts Date/Time: | 10/5/24 | 1400 | Test Counts Initials: | GIP / KAS |
| Test Termination Date/Time: | 10-6-24 | 1345 | Test Termination Initials: | BMR |

This test was conducted in accordance with the method standards or according to the exception(s) as noted:
**Test solution is copper-spiked laboratory water (LW); diluent is LW, control is LW.**

Comments: ① IE TRC 10-7-24 → [1221]

Data Sheet Preparation: Initials: TRC/AOS Date: 10-4-24
End of Test Review: Initials: TRC Date: 10-8-24
TDS Data Entry: Initials: TRC Date: 11-4-24

Final Review: (signature)

| Client: | A&S-Chimney Hill-Copper WER Study #2 - **LW** | Permit No. | WQ0012304001 | Login No. | 24-0702 |
|---|---|---|---|---|---|

## Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | Rep | No. of Surviving Organisms | | | Conc. (ppb) | Rep. | No. of Surviving Organisms | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0 hr | 24 hr | 48 hr | | | 0 hr | 24 hr | 48 hr |
| Control (LW) | A | 10 | 10 | 10 | 20 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 10 | | E | 10 | 10 | 10 |
| 6 | A | 10 | 9 | 9 | 26 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 7 | 7 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 10 | | E | 10 | 6 | 4 |
| 8 | A | 10 | 10 | 10 | 35 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 10 | | D | 10 | 8 | 8 |
| | E | 10 | 10 | 10 | | E | 10 | 10 | 10 |
| 11 | A | 10 | 9 | 9 | 46 | A | 10 | 2 | 0 |
| | B | 10 | 9 | 9 | | B | 10 | 2 | 1 |
| | C | 10 | 10 | 10 | | C | 10 | 9 | 8 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 9 |
| | E | 10 | 10 | 10 | | E | 10 | 9 | 5 |
| 15 | A | 10 | 10 | 10 | 62 | A | 10 | 2 | 0 |
| | B | 10 | 10 | 10 | | B | 10 | 4 | 1 |
| | C | 10 | 10 | 10 | | C | 10 | 0 | 0 |
| | D | 10 | 10 | 10 | | D | 10 | 5 | 4 |
| | E | 10 | 10 | 10 | | E | 10 | 0 | 0 |

Comments:

| Client: | A&S-Chimney Hill-Copper WER Study #2 - **LW** | Permit No. | WQ0012304001 | Login No. | 24-0702 |
|---|---|---|---|---|---|

Water Quality Parameters- Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | pH | |
|---|---|---|
| | 0 hr* | 48 hr** |
| Cont. (LW) | 7.76 | 7.62 |
| 6 | 7.83 | 7.68 |
| 8 | 7.82 | 7.67 |
| 11 | 7.80 | 7.69 |
| 15 | 7.81 | 7.71 |
| 20 | 7.79 | 7.69 |
| 26 | 7.77 | 7.70 |
| 35 | 7.77 | 7.77 |
| 46 | 7.75 | 7.77 |
| 62 | 7.76 | 7.78 |
| Meter No. | 220 | 220 |
| Initials | KRF / AOJ | FJA / BMR |

| Conc. (ppb) | Temperature °C Offset: 0.4 | |
|---|---|---|
| | 0 hr * | 48 hr ** |
| Cont. (LW) | 24.5/24.9 | 25.3/25.7 |
| 6 | 24.6/25.0 | 25.3/25.7 |
| 8 | 24.6/25.0 | 25.5/25.9 |
| 11 | 24.6/25.0 | 25.5/25.9 |
| 15 | 24.6/25.0 | 25.5/25.9 |
| 20 | 24.6/25.0 | 25.3/25.7 |
| 26 | 24.7/25.1 | 25.1/25.5 |
| 35 | 24.7/25.1 | 25.4/25.8 |
| 46 | 24.8/25.2 | 25.6/26.0 |
| 62 | 24.8/25.2 | 25.4/24.8 |
| Therm. No. | YS17 | YS17 |
| Initials | KRF / AOJ | FJA / BMR |

| Conc. (ppb) | Dissolved Oxygen (mg/L) | |
|---|---|---|
| | 0 hr* | 48 hr** |
| Cont. (LW) | 8.22 | 8.33 |
| 6 | 8.21 | 8.31 |
| 8 | 8.21 | 8.26 |
| 11 | ~~8.21~~ ① | 8.23 |
| 15 | 8.20 | 8.20 |
| 20 | 8.21 | 8.19 |
| 26 | 8.21 | 8.22 |
| 35 | 8.18 | 8.27 |
| 46 | 8.17 | 8.25 |
| 62 | 8.17 | 8.23 |
| Meter No. | YS17 | YS17 |
| Initials | KRF / AOJ | FJA / BMR |

Comments: ① IL AOJ 10-4-24 → [8.21]

| Conc. (ppb) | Conductivity (‰) |
|---|---|
| | 0 hr * |
| Cont. (LW) | 320 |
| 6 | 320 |
| 8 | 320 |
| 11 | 320 |
| 15 | 320 |
| 20 | 320 |
| 26 | 320 |
| 35 | 330 |
| 46 | 330 |
| 62 | 330 |
| Meter No. | 508 |
| Initials | KRF / AOJ |

*0hr readings performed @ 1030. -AOJ 10-4-24
**48hr readings performed @ 1405 - BMR 10-6-24

| Client: | A&S-Chimney Hill-Copper WER Study #2 - **SD** | Permit No. | WQ0012304001 | Login No.: | 24-0702 |
|---|---|---|---|---|---|

BHJ1107

48 h Acute *Ceriodaphnia dubia* Toxicity Test Condition Summary
Test Method EPA/821-R-02-012-2002.0; PBS&J SOP No. 4031

| | | | |
|---|---|---|---|
| Test Organism: | *Ceriodaphnia dubia* | Age Class: | < 24hrs |
| Test Type: | Acute Static (Copper WER) | Test Duration: | 48 h |
| Temperature: | 25 ± 1 | Photoperiod: | 16:8 h; ambient light; 50-100 ft-c |
| Test Chamber size: | 150 mL cups | Cleaning: | Cleaning not required |
| No. of Replicates: | 5 | No. organisms per Replicate: | 10 |
| Test Solution Volume: | 75 mL (minimum) | Dilution Water: | see notes; Effluent (SD) |
| Renewal of test solution: | None | Aeration: | None |
| Feeding: | Prior to test set up | Food Type: | YCT and *Selenastrum* |
| Acceptability Criteria | ≥ 90% survival in control | Sample Holding Time Requirements: | WER testing to begin within 96h from time of effluent collection. |

| | | | | |
|---|---|---|---|---|
| Test Concentrations (ppb): | Control, 19, 25,33, 44, 59,78, 104, 139, 186 ppb Cu | | | |
| Organism Age/DOB: | <1 day | 10-4-24 | Organism Source: | 24-1023 |

| | |
|---|---|
| Sample 1 Date/Time: | 10/3/24 1050 |

| | | | | |
|---|---|---|---|---|
| Test Initiation Date/Time: | 10-4-24 | 1345 | Test Initiation Initials: | GIP/AOJ/KFJ/ |
| Test Counts Date/Time: | 10/5/24 | 1400 | Test Counts Initials: | ABH/KFJ |
| Test Termination Date/Time: | 10/6/24 | 1345 | Test Termination Initials: | FJA |

This test was conducted in accordance with the method standards or according to the exception(s) as noted:
**Test solution is copper-spiked simulated downstream water (SD); diluent is SD, control is SD.**

Comments:

Data Sheet Preparation: Initials: TRL/AOJ Date: 10-4-24
End of Test Review: Initials: FJA Date: 10-6-24
TDS Data Entry: Initials: TRL Date: 11-4-24

Final Review: (signature)

| Client: | A&S-Chimney Hill-Copper WER Study #2 - **SD** | Permit No. | WQ0012304001 | Login No. | 24-0702 |
|---|---|---|---|---|---|

## Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | Rep. | No. of Surviving Organisms | | | Conc. (ppb) | Rep. | No. of Surviving Organisms | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0 hr | 24 hr | 48 hr | | | 0 hr | 24 hr | 48 hr |
| Control (SD) | A | 10 | 10 | 10 | 59 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 10 | | E | 10 | 10 | 10 |
| 19 | A | 10 | 10 | 10 | 78 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 10 | | E | 10 | 10 | 10 |
| 25 | A | 10 | 10 | 10 | 104 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 10 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 10 | | E | 10 | 10 | 10 |
| 33 | A | 10 | 10 | 10 | 139 | A | 10 | 10 | 10 |
| | B | 10 | 10 | 9 | | B | 10 | 10 | 10 |
| | C | 10 | 10 | 10 | | C | 10 | 10 | 10 |
| | D | 10 | 10 | 10 | | D | 10 | 10 | 10 |
| | E | 10 | 10 | 9 | | E | 10 | 10 | 10 |
| 44 | A | 10 | 10 | 10 | 186 | A | 10 | 4 | 4 |
| | B | 10 | 10 | 10 | | B | 10 | ~~10~~ 0 | ~~10~~ 0 ① |
| | C | 10 | 10 | 10 | | C | 10 | 8 | ~~8~~ ② |
| | D | 10 | 10 | 10 | | D | 10 | 7 | 7 |
| | E | 10 | 10 | 10 | | E | 10 | 10 | 8 |

Comments:

① IE KRE 10-5-24 → [1]

② IE FJA 10-6-24 → [4]

| Client: | A&S-Chimney Hill-Copper WER Study #2 - **SD** | Permit No. | WQ0012304001 | Login No. | 24-0702 |
|---|---|---|---|---|---|

Water Quality Parameters- Acute Toxicity Test with *Ceriodaphnia dubia*

| Conc. (ppb) | pH | |
|---|---|---|
| | 0 hr * | 48 hr ** |
| Cont. (SD) | 7.15 | 7.62 |
| 19 | 7.16 | 7.63 |
| 25 | 7.20 | 7.69 |
| 33 | 7.20 | 7.69 |
| 44 | 7.23 | 7.71 |
| 59 | 7.24 | 7.72 |
| 78 | 7.25 | 7.72 |
| 104 | 7.25 | 7.75 |
| 139 | 7.25 | 7.76 |
| 186 | 7.32 | 7.75 |
| Meter No. | 509 | 220 |
| Initials | KRI / ADJ | FSA / BMR |

| Conc. (ppb) | Temperature °C Offset: 0.4 | |
|---|---|---|
| | 0 hr * | 48 hr ** |
| Cont. (SD) | 24.5 / 24.9 | 24.7 / 25.1 |
| 19 | 24.6 / 25.0 | 24.9 / 25.3 |
| 25 | 24.6 / ~~24.6~~ ② | 25.1 / 25.5 |
| 33 | 24.6 / 25.0 | 25.1 / 25.5 |
| 44 | 24.6 / 25.0 | 25.0 / 25.4 |
| 59 | 24.7 / 25.1 | 24.9 / 25.3 |
| 78 | 24.7 / 25.1 | 24.9 / 25.3 |
| 104 | 24.7 / 25.1 | 25.1 / 25.5 |
| 139 | 24.8 / 25.2 | 25.1 / 25.5 |
| 186 | ① ~~24.7~~ / 25.2 | 24.8 / 25.2 |
| Therm. No. | YSI 7 | YS17 |
| Initials | KRI / ADJ | FSA / BMR |

| Conc. (ppb) | Dissolved Oxygen (mg/L) | |
|---|---|---|
| | 0 hr * | 48 hr ** |
| Cont. (SD) | 8.29 | 8.28 |
| 19 | 8.30 | 8.28 |
| 25 | 8.27 | 8.24 |
| 33 | 8.26 | 8.23 |
| 44 | 8.25 | 8.21 |
| 59 | 8.23 | 8.20 |
| 78 | 8.23 | 8.24 |
| 104 | 8.26 | 8.25 |
| 139 | 8.23 | 8.26 |
| 186 | 8.21 | 8.25 |
| Meter No. | YSI 7 | YS17 |
| Initials | KRI / ADJ | FSA / BMR |

| Conc. (ppb) | Conductivity (‰) |
|---|---|
| | 0 hr * |
| Cont. (SD) | 800 |
| 19 | 810 |
| 25 | 810 |
| 33 | 810 |
| 44 | 810 |
| 59 | 810 |
| 78 | 810 |
| 104 | 820 |
| 139 | 820 |
| 186 | 820 |
| Meter No. | 508 |
| Initials | KRI / ADJ |

Comments: ①IE ADJ 10-4-24 → [24.8]
②IE KRI 10-4-24 → [25.0]

*0hr readings performed @ 1030 - ADJ 10-4-24
**48hr readings performed @ 1405 - BMR 10-6-24

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 13-4936-4805 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:34 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 8DA2C86322420FFA4FCE9930797900C9 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 08-6094-6367 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:36 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:37 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 17-4031-8048 | **Code:** | 67BB2560 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 15:15 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 16:47 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 22h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Dissolved Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 1829424 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.386 | 2.822 | 0.0021 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 18.2 | 16.28 | 22.04 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 14 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9800 | 2.00% |
| 18.2 | | 5 | 0.5000 | 0.4000 | 0.2000 | 0.9000 | 58.31% | 50.00% | 25/50 | 0.5000 | 50.00% |
| 26.1 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |
| 58.5 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

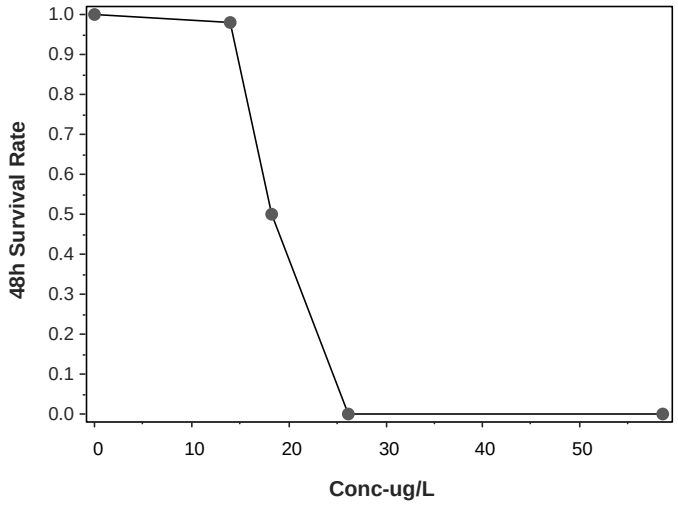
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 14 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 18.2 | | 0.7000 | 0.4000 | 0.9000 | 0.3000 | 0.2000 |
| 26.1 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 58.5 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 13-4936-4805 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:34 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 8DA2C86322420FFA4FCE9930797900C9 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 10-2883-3636 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:33 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 8DA2C86322420FFA4FCE9930797900C9 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 08-6094-6367 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:36 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:37 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 17-4031-8048 | **Code:** | 67BB2560 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 15:15 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 16:47 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 22h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Dissolved Copper

**Trimmed Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0 | 2.00% | 1.269 | 0.01002 | 18.58 | 17.75 | 19.46 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.386 | 2.822 | 0.0021 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

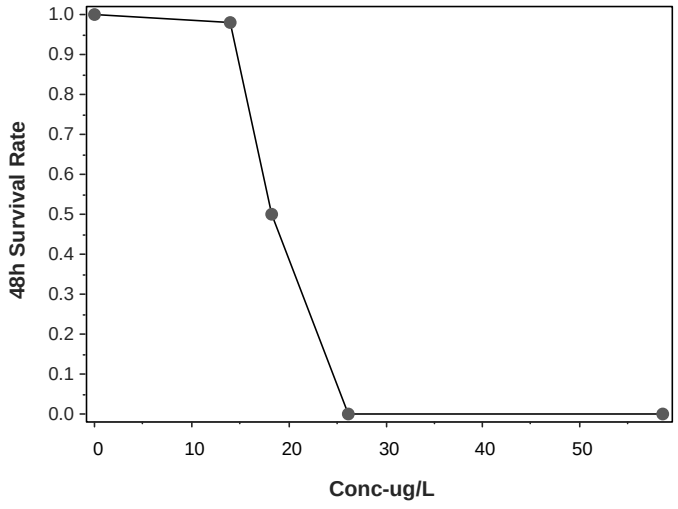
**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 14 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9800 | 2.00% |
| 18.2 | | 5 | 0.5000 | 0.4000 | 0.2000 | 0.9000 | 58.31% | 50.00% | 25/50 | 0.5000 | 50.00% |
| 26.1 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |
| 58.5 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 14 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 18.2 | | 0.7000 | 0.4000 | 0.9000 | 0.3000 | 0.2000 |
| 26.1 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 58.5 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** — **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 09-3182-1718 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:10 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 8DA2C86322420FFA4FCE9930797900C9 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 08-6094-6367 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:36 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:37 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 17-4031-8048 | **Code:** | 67BB2560 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 15:15 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 16:47 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 22h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Dissolved Copper

**Linear Regression Options**

| Model Name | Link Function | Threshold Option | Thresh | PMSD | Optimize | Pooled | Het Corr | Weighted |
|---|---|---|---|---|---|---|---|---|
| Log-Normal (Probit) | η=inv Φ[π] | Control Threshold | 1.18E-07 | 0.01% | Yes | No | No | Yes |

**Regression Summary**

| Iters | LL | AICc | BIC | Mu | Sigma | Cov | R2 | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | -16.32 | 39.79 | 42.3 | 1.259051 | 0.053385 | -14.8472 | 0.8941 | 0.06208 | 0.9400 | Non-Significant Lack-of-Fit |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 18.16 | 17.46 | 19.04 |

**Regression Parameters**

| Parameter | Estimate | Std Error | 95% LCL | 95% UCL | Test Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|
| Threshold | 1.18E-07 | 4.85E-05 | -9.5E-05 | 9.51E-05 | 0.002424 | 0.9981 | Non-Significant Parameter |
| Slope | 18.73 | 3.45 | 11.97 | 25.49 | 5.43 | <1.0E-05 | Significant Parameter |
| Intercept | -23.58 | 4.307 | -32.03 | -15.14 | -5.476 | <1.0E-05 | Significant Parameter |

**ANOVA Table**

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|
| Model | 163100000 | 81570000 | 2 | 97270000 | <1.0E-05 | Significant Effect |
| Lack of Fit | 0.1138 | 0.05691 | 2 | 0.06208 | 0.9400 | Non-Significant Lack-of-Fit |
| Pure Error | 18.33 | 0.9167 | 20 | | | |
| Residual | 18.45 | 0.8386 | 22 | | | |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Model Fit | Likelihood Ratio GOF Test | 18.4 | 33.92 | 0.6818 | Non-Significant Heterogeneity |
| | Pearson Chi-Sq GOF Test | 18.45 | 33.92 | 0.6791 | Non-Significant Heterogeneity |
| Outlier | Grubbs Extreme Value Test | 2.942 | 2.822 | 0.0280 | Outlier Detected |
| Variance | Mod Levene Equality of Variance | 4.334 | 3.056 | 0.0158 | Unequal Variances |
| Distribution | Anderson-Darling A2 Test | 2.57 | 2.492 | <1.0E-05 | Non-Normal Distribution |
| | Shapiro-Wilk W Normality Test | 0.8116 | 0.9195 | 0.0004 | Non-Normal Distribution |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |
| Overdispersion | Tarone C(α) Overdispersion Test | 2.867 | 1.645 | 0.0021 | Significant Overdispersion |

**48h Survival Rate Summary** — **Calculated Variate(A/B)**

| Conc-ug/L | Code | Count | Mean | Median | Min | Max | Std Err | Std Dev | CV% | %Effect | ΣA/ΣB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 14 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | 2.00% | 49/50 |
| 18.2 | | 5 | 0.5000 | 0.4000 | 0.2000 | 0.9000 | 0.1304 | 0.2915 | 58.31% | 50.00% | 25/50 |
| 26.1 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 |
| 58.5 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 |

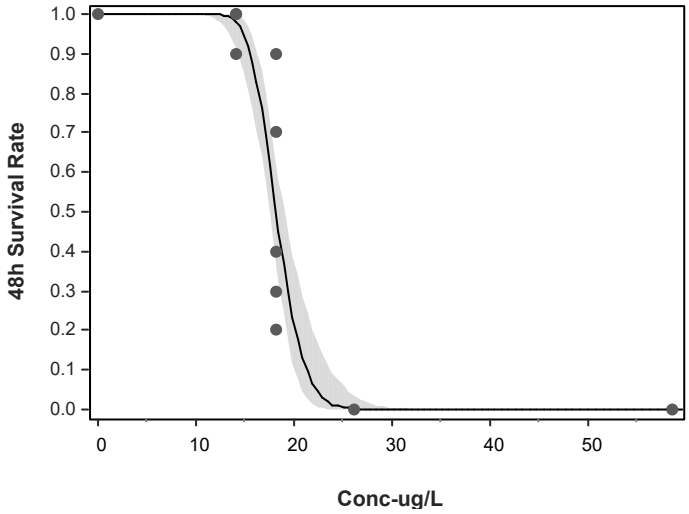
**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

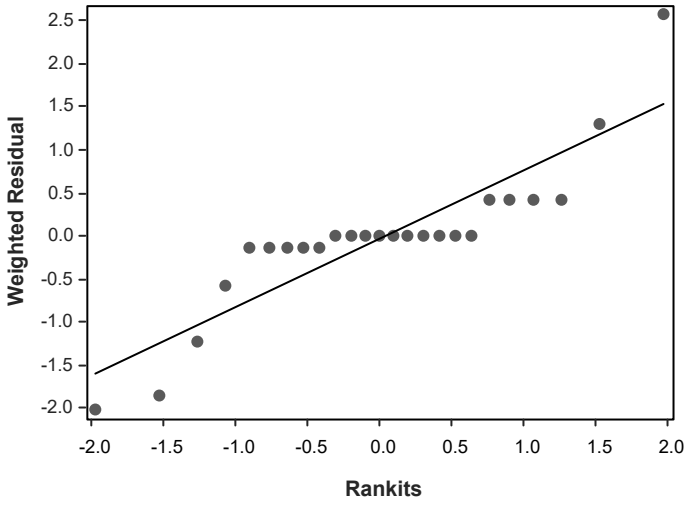
| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 09-3182-1718 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:10 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 8DA2C86322420FFA4FCE9930797900C9 | **Editor ID:** | 000-853-287-7 |

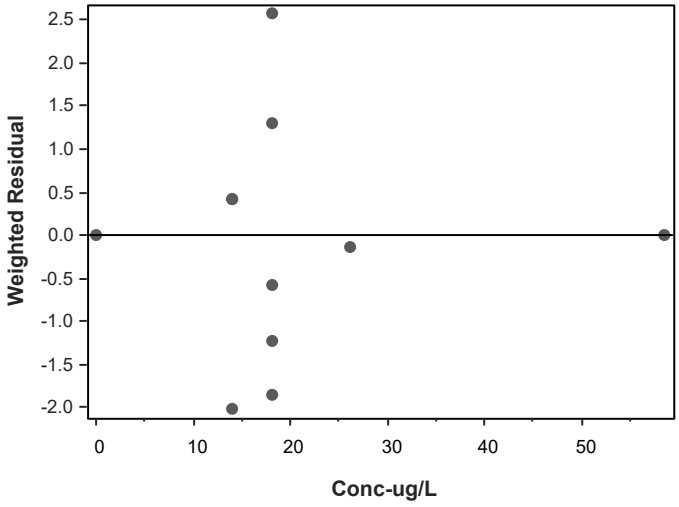
**48h Survival Rate Detail**

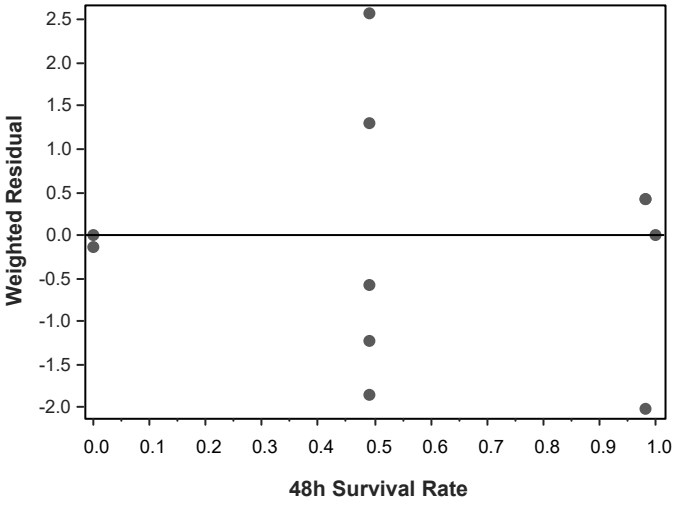
| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 14 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 18.2 | | 0.7000 | 0.4000 | 0.9000 | 0.3000 | 0.2000 |
| 26.1 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 58.5 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Graphics** Log-Normal: inv Φ[π]=α+β·log[x]



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 08-3152-6956 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:36 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 5808B7A5E32B34FDCF888770D8ADD839 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 13-6952-3313 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:36 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:37 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 07-5209-4933 | **Code:** | 2CD40ED5 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 15:15 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 16:47 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 22h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 161523 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.386 | 2.822 | 0.0021 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 18.5 | 17.7 | 23.5 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 16.6 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9800 | 2.00% |
| 18.5 | | 5 | 0.5000 | 0.4000 | 0.2000 | 0.9000 | 58.31% | 50.00% | 25/50 | 0.5000 | 50.00% |
| 29.4 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |
| 43.7 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

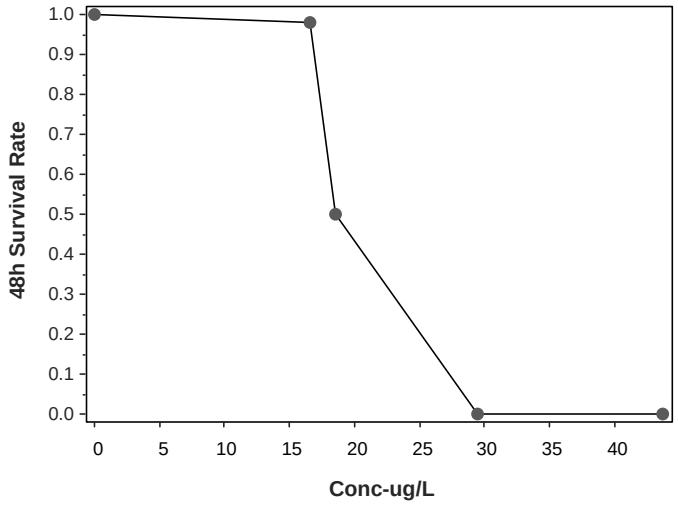
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 16.6 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 18.5 | | 0.7000 | 0.4000 | 0.9000 | 0.3000 | 0.2000 |
| 29.4 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 43.7 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 08-3152-6956 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:36 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 5808B7A5E32B34FDCF888770D8ADD839 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 04-9980-4449 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:35 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 5808B7A5E32B34FDCF888770D8ADD839 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 13-6952-3313 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:36 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:37 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 07-5209-4933 | **Code:** | 2CD40ED5 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 15:15 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 16:47 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 22h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Trimmed Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0 | 2.00% | 1.304 | 0.009143 | 20.12 | 19.29 | 20.99 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.386 | 2.822 | 0.0021 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

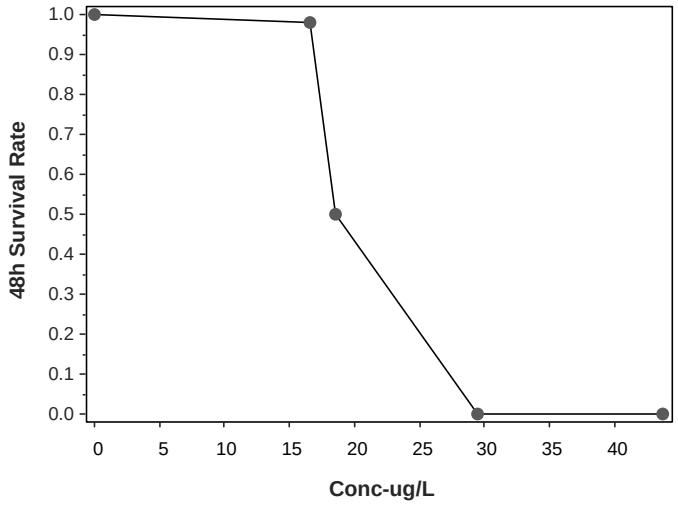
**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 16.6 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9800 | 2.00% |
| 18.5 | | 5 | 0.5000 | 0.4000 | 0.2000 | 0.9000 | 58.31% | 50.00% | 25/50 | 0.5000 | 50.00% |
| 29.4 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |
| 43.7 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 16.6 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 18.5 | | 0.7000 | 0.4000 | 0.9000 | 0.3000 | 0.2000 |
| 29.4 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 43.7 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** — **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 15-0367-7142 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:12 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 5808B7A5E32B34FDCF888770D8ADD839 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 13-6952-3313 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:36 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:37 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 07-5209-4933 | **Code:** | 2CD40ED5 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 15:15 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 16:47 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 22h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Regression Options**

| Model Name | Link Function | Threshold Option | Thresh | PMSD | Optimize | Pooled | Het Corr | Weighted |
|---|---|---|---|---|---|---|---|---|
| Log-Normal (Probit) | η=inv Φ[π] | Control Threshold | 1.00E-07 | 0.01% | Yes | No | No | Yes |

**Regression Summary**

| Iters | LL | AICc | BIC | Mu | Sigma | Cov | R2 | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | -16.23 | 39.59 | 42.11 | 1.267171 | 0.022915 | -112.038 | 0.8978 | 1.14E-05 | 1.0000 | Non-Significant Lack-of-Fit |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 18.5 | 18.19 | 18.96 |

**Regression Parameters**

| Parameter | Estimate | Std Error | 95% LCL | 95% UCL | Test Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|
| Threshold | 1E-07 | 4.47E-05 | -8.8E-05 | 8.78E-05 | 0.002236 | 0.9982 | Non-Significant Parameter |
| Slope | 43.64 | 9.431 | 25.16 | 62.12 | 4.627 | <1.0E-05 | Significant Parameter |
| Intercept | -55.3 | 11.88 | -78.59 | -32.01 | -4.654 | <1.0E-05 | Significant Parameter |

**ANOVA Table**

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|
| Model | 204800000 | 102400000 | 2 | 1.27E+08 | <1.0E-05 | Significant Effect |
| Lack of Fit | 2.008E-05 | 1.004E-05 | 2 | 1.14E-05 | 1.0000 | Non-Significant Lack-of-Fit |
| Pure Error | 17.68 | 0.8841 | 20 | | | |
| Residual | 17.68 | 0.8038 | 22 | | | |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Model Fit | Likelihood Ratio GOF Test | 18.21 | 33.92 | 0.6933 | Non-Significant Heterogeneity |
| | Pearson Chi-Sq GOF Test | 17.68 | 33.92 | 0.7246 | Non-Significant Heterogeneity |
| Outlier | Grubbs Extreme Value Test | 2.947 | 2.822 | 0.0274 | Outlier Detected |
| Variance | Mod Levene Equality of Variance | 4.672 | 3.056 | 0.0119 | Unequal Variances |
| Distribution | Anderson-Darling A2 Test | 2.998 | 2.492 | <1.0E-05 | Non-Normal Distribution |
| | Shapiro-Wilk W Normality Test | 0.7887 | 0.9195 | 0.0001 | Non-Normal Distribution |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |
| Overdispersion | Tarone C(α) Overdispersion Test | 2.867 | 1.645 | 0.0021 | Significant Overdispersion |

**48h Survival Rate Summary** — **Calculated Variate(A/B)**

| Conc-ug/L | Code | Count | Mean | Median | Min | Max | Std Err | Std Dev | CV% | %Effect | ΣA/ΣB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 16.6 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | 2.00% | 49/50 |
| 18.5 | | 5 | 0.5000 | 0.4000 | 0.2000 | 0.9000 | 0.1304 | 0.2915 | 58.31% | 50.00% | 25/50 |
| 29.4 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 |
| 43.7 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 |

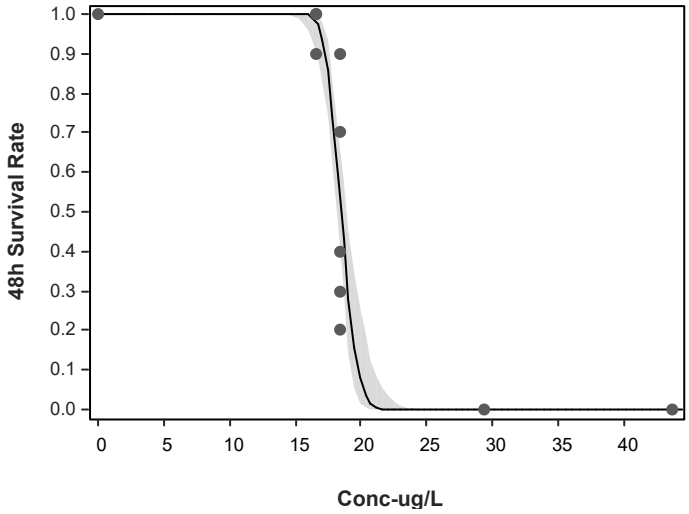
**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

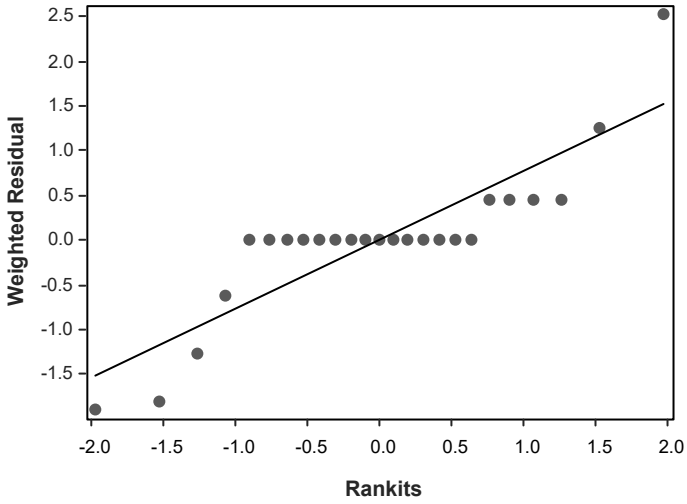
| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 15-0367-7142 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:12 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 5808B7A5E32B34FDCF888770D8ADD839 | **Editor ID:** | 000-853-287-7 |

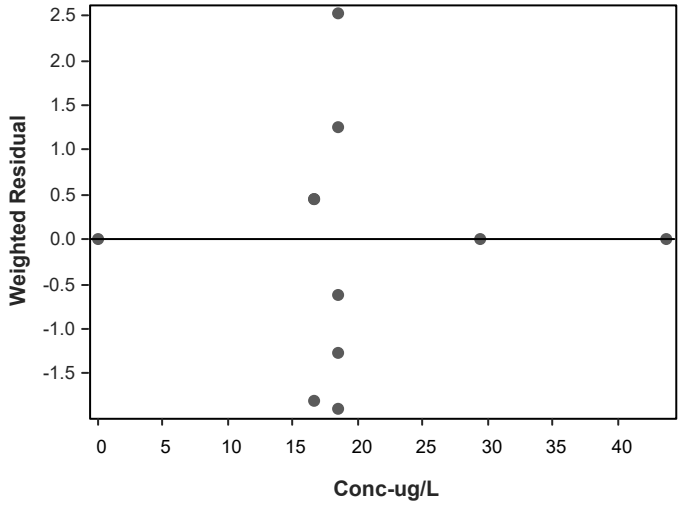
**48h Survival Rate Detail**

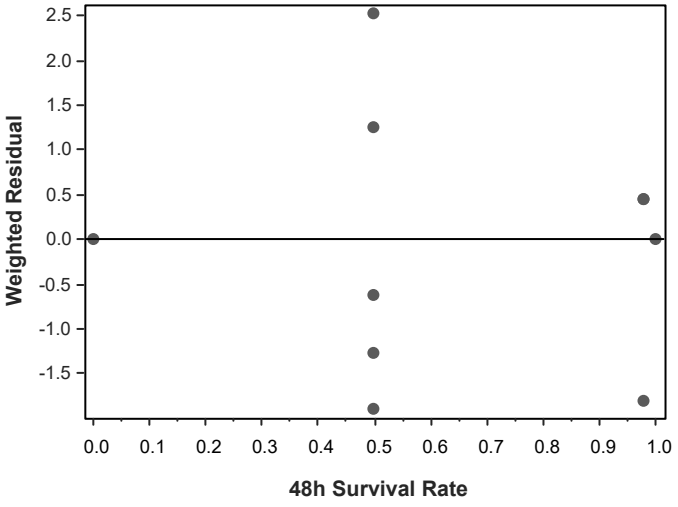
| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 16.6 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 18.5 | | 0.7000 | 0.4000 | 0.9000 | 0.3000 | 0.2000 |
| 29.4 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 43.7 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Graphics** Log-Normal: inv Φ[π]=α+β·log[x]



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 14-2278-3775 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:38 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 08-6094-6367 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:46 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 04-3387-4537 | **Code:** | 19DC6669 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 12:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 13:50 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 26h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Dissolved Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 1253449 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.999 | 3.085 | 0.0004 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 0.09244 | 0.05 | 0.0924 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 131.1 | 116.5 | 154.7 |

| 48h Survival Rate Summary | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Conc-ug/L** | **Code** | **Count** | **Mean** | **Median** | **Min** | **Max** | **CV%** | **%Effect** | **ΣA/ΣB** | **Mean** | **%Effect** |
| 0 | SD | 5 | 0.9400 | 1.0000 | 0.8000 | 1.0000 | 9.52% | 0.00% | 47/50 | 0.9429 | 0.00% |
| 26 | | 5 | 0.8000 | 0.8000 | 0.7000 | 0.9000 | 8.84% | 14.89% | 40/50 | 0.9429 | 0.00% |
| 26.1 | | 5 | 0.9200 | 1.0000 | 0.6000 | 1.0000 | 19.44% | 2.13% | 46/50 | 0.9429 | 0.00% |
| 36.3 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 44 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | -6.38% | 50/50 | 0.9429 | 0.00% |
| 65 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 86.6 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 129.5 | | 5 | 0.4800 | 0.5000 | 0.3000 | 0.7000 | 30.90% | 48.94% | 24/50 | 0.4800 | 49.09% |
| 218.5 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

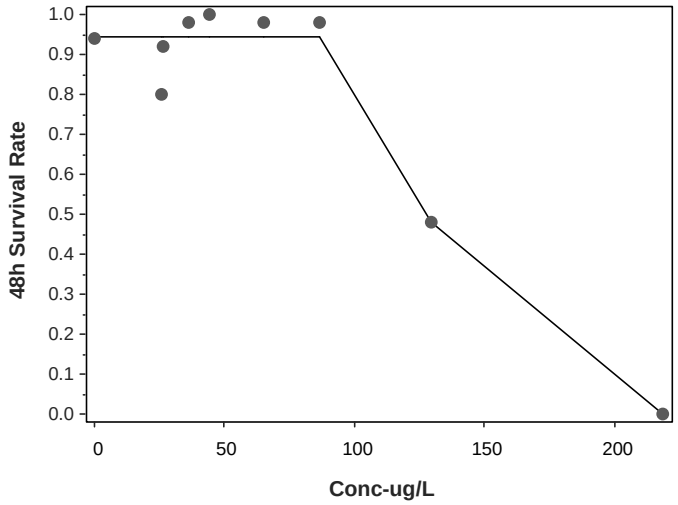
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 0.9000 | 0.8000 |
| 26 | | 0.9000 | 0.8000 | 0.8000 | 0.8000 | 0.7000 |
| 26.1 | | 0.6000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 36.3 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 44 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 65 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 86.6 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 129.5 | | 0.5000 | 0.4000 | 0.3000 | 0.5000 | 0.7000 |
| 218.5 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 14-2278-3775 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:38 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 08-1845-6721 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:37 | **Analysis:** | Untrimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 08-6094-6367 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:46 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 04-3387-4537 | **Code:** | 19DC6669 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 12:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 13:50 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 26h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Dissolved Copper

**Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0.06 | 0.00% | 2.127 | 0.01421 | 134 | 125.5 | 143.1 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.999 | 3.085 | 0.0004 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 0.09244 | 0.05 | 0.0924 | Non-Significant Control Trend |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 0.9400 | 1.0000 | 0.8000 | 1.0000 | 9.52% | 0.00% | 47/50 | 0.9429 | 0.00% |
| 26 | | 5 | 0.8000 | 0.8000 | 0.7000 | 0.9000 | 8.84% | 14.89% | 40/50 | 0.9429 | 0.00% |
| 26.1 | | 5 | 0.9200 | 1.0000 | 0.6000 | 1.0000 | 19.44% | 2.13% | 46/50 | 0.9429 | 0.00% |
| 36.3 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 44 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | -6.38% | 50/50 | 0.9429 | 0.00% |
| 65 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 86.6 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 129.5 | | 5 | 0.4800 | 0.5000 | 0.3000 | 0.7000 | 30.90% | 48.94% | 24/50 | 0.4800 | 49.09% |
| 218.5 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

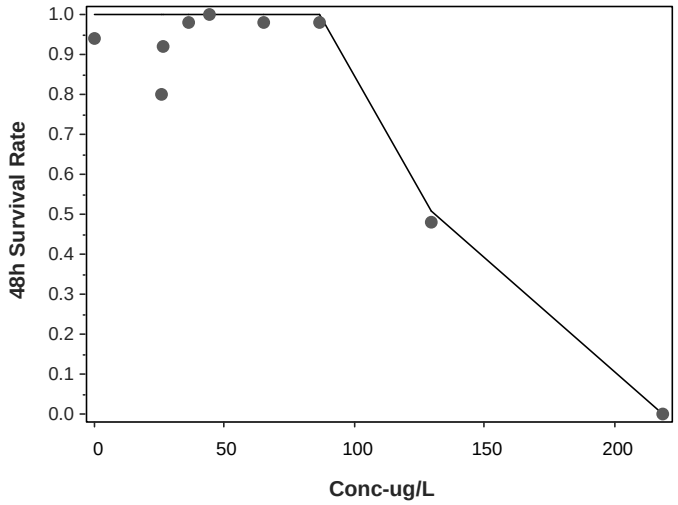
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 0.9000 | 0.8000 |
| 26 | | 0.9000 | 0.8000 | 0.8000 | 0.8000 | 0.7000 |
| 26.1 | | 0.6000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 36.3 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 44 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 65 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 86.6 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 129.5 | | 0.5000 | 0.4000 | 0.3000 | 0.5000 | 0.7000 |
| 218.5 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 08-1845-6721 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:37 | **Analysis:** | Untrimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 11-0422-5685 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:13 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 08-6094-6367 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 24 Aug-24 13:46 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 04-3387-4537 | **Code:** | 19DC6669 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 12:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 13:50 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 26h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Dissolved Copper

**Linear Regression Options**

| Model Name | Link Function | Threshold Option | Thresh | PMSD | Optimize | Pooled | Het Corr | Weighted |
|---|---|---|---|---|---|---|---|---|
| Log-Normal (Probit) | η=inv Φ[π] | Control Threshold | 0.057143 | 2.58% | Yes | No | No | Yes |

**Regression Summary**

| Iters | LL | AICc | BIC | Mu | Sigma | Cov | R2 | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 | -48.42 | 103.4 | 108.3 | 2.113125 | 0.037501 | -86813.0 | 0.8019 | 3.813 | 0.0048 | Significant Lack-of-Fit |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 129.8 | --- | --- |

**Regression Parameters**

| Parameter | Estimate | Std Error | 95% LCL | 95% UCL | Test Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|
| Threshold | 0.05714 | 0.01241 | 0.03282 | 0.08146 | 4.605 | <1.0E-05 | Significant Parameter |
| Slope | 26.67 | 202.7 | -370.7 | 424 | 0.1315 | 0.8954 | Non-Significant Parameter |
| Intercept | -56.35 | 428.2 | -895.6 | 782.9 | -0.1316 | 0.8953 | Non-Significant Parameter |

**ANOVA Table**

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|
| Model | 48040 | 24020 | 2 | 14900 | <1.0E-05 | Significant Effect |
| Lack of Fit | 26.3 | 4.384 | 6 | 3.813 | 0.0048 | Significant Lack-of-Fit |
| Pure Error | 41.39 | 1.15 | 36 | | | |
| Residual | 67.69 | 1.612 | 42 | | | |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Model Fit | Collapsed Chi-Sq GOF Test | 3.526 | 5.991 | 0.1716 | Non-Significant Heterogeneity |
| | Likelihood Ratio GOF Test | 58.72 | 58.12 | 0.0448 | Significant Heterogeneity |
| Outlier | Grubbs Extreme Value Test | 3.766 | 3.085 | 0.0017 | Outlier Detected |
| Variance | Mod Levene Equality of Variance | 0.6626 | 2.305 | 0.7191 | Equal Variances |
| Distribution | Anderson-Darling A2 Test | 4.884 | 2.492 | <1.0E-05 | Non-Normal Distribution |
| | Shapiro-Wilk W Normality Test | 0.7309 | 0.9498 | <1.0E-05 | Non-Normal Distribution |
| Control Trend | Mann-Kendall Trend Test | 0.09244 | 0.05 | 0.0924 | Non-Significant Control Trend |
| Overdispersion | Tarone C(α) Overdispersion Test | 4.13 | 1.645 | 1.8E-05 | Significant Overdispersion |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 11-0422-5685 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:13 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Conc-ug/L** | **Code** | **Count** | **Mean** | **Median** | **Min** | **Max** | **Std Err** | **Std Dev** | **CV%** | **%Effect** | **ΣA/ΣB** |
| 0 | SD | 5 | 0.9400 | 1.0000 | 0.8000 | 1.0000 | 0.0400 | 0.0894 | 9.52% | 0.00% | 47/50 |
| 26 | | 5 | 0.8000 | 0.8000 | 0.7000 | 0.9000 | 0.0316 | 0.0707 | 8.84% | 14.89% | 40/50 |
| 26.1 | | 5 | 0.9200 | 1.0000 | 0.6000 | 1.0000 | 0.0800 | 0.1789 | 19.44% | 2.13% | 46/50 |
| 36.3 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | -4.26% | 49/50 |
| 44 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | -6.38% | 50/50 |
| 65 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | -4.26% | 49/50 |
| 86.6 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | -4.26% | 49/50 |
| 129.5 | | 5 | 0.4800 | 0.5000 | 0.3000 | 0.7000 | 0.0663 | 0.1483 | 30.90% | 48.94% | 24/50 |
| 218.5 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 |

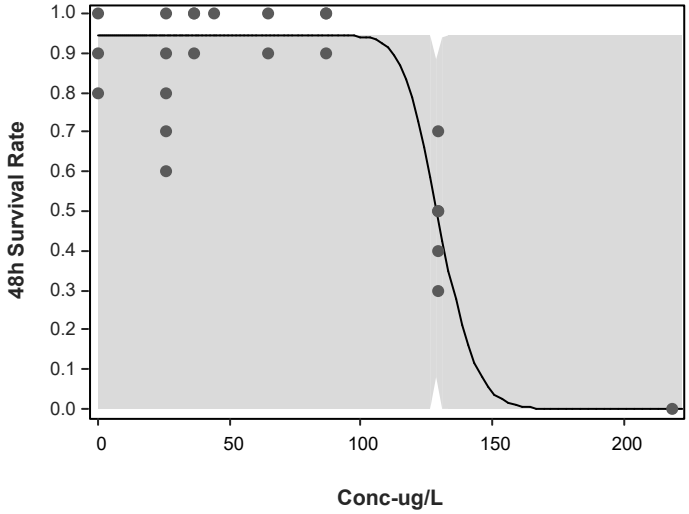
**48h Survival Rate Detail**

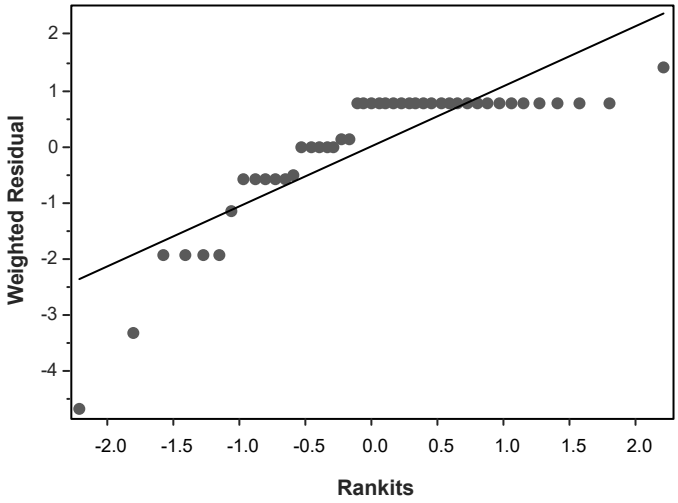
| **Conc-ug/L** | **Code** | **Rep 1** | **Rep 2** | **Rep 3** | **Rep 4** | **Rep 5** |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 0.9000 | 0.8000 |
| 26 | | 0.9000 | 0.8000 | 0.8000 | 0.8000 | 0.7000 |
| 26.1 | | 0.6000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 36.3 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 44 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 65 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 86.6 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 129.5 | | 0.5000 | 0.4000 | 0.3000 | 0.5000 | 0.7000 |
| 218.5 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

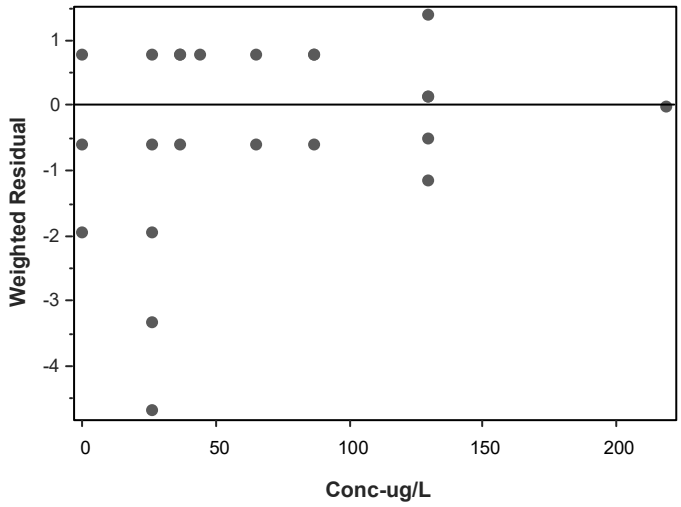
**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

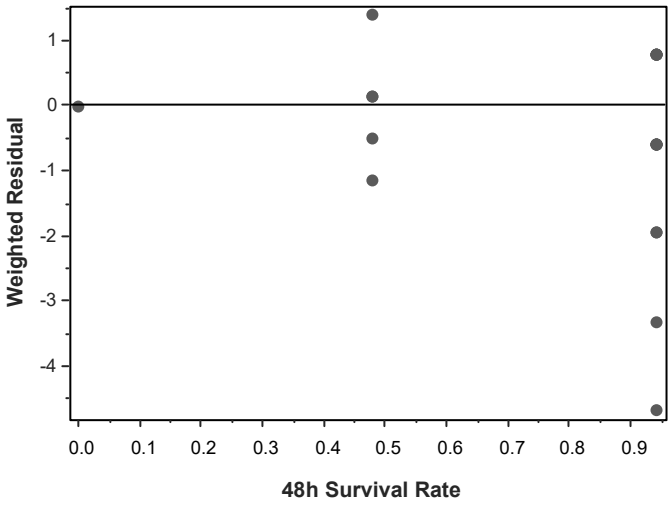
| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 11-0422-5685 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:13 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CBDFAEE0760AD00924C11F4D188CF4D | **Editor ID:** | 000-853-287-7 |

**Graphics** Log-Normal: inv Φ[π]=α+β·log[x]



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 03-4089-2817 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:39 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |

| | | | | | |
|---|---|---|---|---|---|
| **Batch ID:** | 06-1523-9474 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Simulated Downstream Water |
| **Ending Date:** | 24 Aug-24 13:46 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID:** | 05-4447-9813 | **Code:** | 20741A45 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 12:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 13:50 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 26h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Total Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 957816 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.999 | 3.085 | 0.0004 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 0.09244 | 0.05 | 0.0924 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 155.5 | 137.4 | 180.2 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 0.9400 | 1.0000 | 0.8000 | 1.0000 | 9.52% | 0.00% | 47/50 | 0.9429 | 0.00% |
| 27.2 | | 5 | 0.8000 | 0.8000 | 0.7000 | 0.9000 | 8.84% | 14.89% | 40/50 | 0.9429 | 0.00% |
| 30.8 | | 5 | 0.9200 | 1.0000 | 0.6000 | 1.0000 | 19.44% | 2.13% | 46/50 | 0.9429 | 0.00% |
| 41 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 58.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | -6.38% | 50/50 | 0.9429 | 0.00% |
| 75 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 102.4 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 153.5 | | 5 | 0.4800 | 0.5000 | 0.3000 | 0.7000 | 30.90% | 48.94% | 24/50 | 0.4800 | 49.09% |
| 265 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

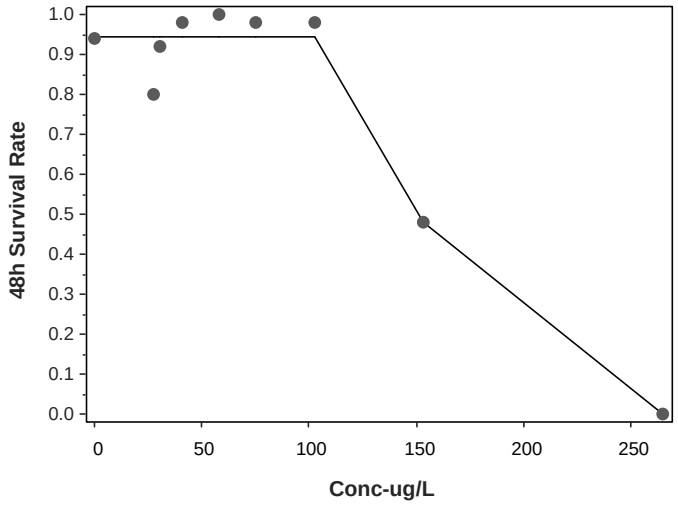
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 0.9000 | 0.8000 |
| 27.2 | | 0.9000 | 0.8000 | 0.8000 | 0.8000 | 0.7000 |
| 30.8 | | 0.6000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 41 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 58.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 75 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 102.4 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 153.5 | | 0.5000 | 0.4000 | 0.3000 | 0.5000 | 0.7000 |
| 265 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 03-4089-2817 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:39 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 03-1015-1019 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:38 | **Analysis:** | Untrimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 06-1523-9474 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Simulated Downstream Water |
| **Ending Date:** | 24 Aug-24 13:46 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 05-4447-9813 | **Code:** | 20741A45 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 12:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 13:50 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 26h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Total Copper

**Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0.06 | 0.00% | 2.203 | 0.0146 | 159.7 | 149.3 | 170.8 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.999 | 3.085 | 0.0004 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 0.09244 | 0.05 | 0.0924 | Non-Significant Control Trend |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 0.9400 | 1.0000 | 0.8000 | 1.0000 | 9.52% | 0.00% | 47/50 | 0.9429 | 0.00% |
| 27.2 | | 5 | 0.8000 | 0.8000 | 0.7000 | 0.9000 | 8.84% | 14.89% | 40/50 | 0.9429 | 0.00% |
| 30.8 | | 5 | 0.9200 | 1.0000 | 0.6000 | 1.0000 | 19.44% | 2.13% | 46/50 | 0.9429 | 0.00% |
| 41 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 58.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | -6.38% | 50/50 | 0.9429 | 0.00% |
| 75 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 102.4 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | -4.26% | 49/50 | 0.9429 | 0.00% |
| 153.5 | | 5 | 0.4800 | 0.5000 | 0.3000 | 0.7000 | 30.90% | 48.94% | 24/50 | 0.4800 | 49.09% |
| 265 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 | 0.0000 | 100.00% |

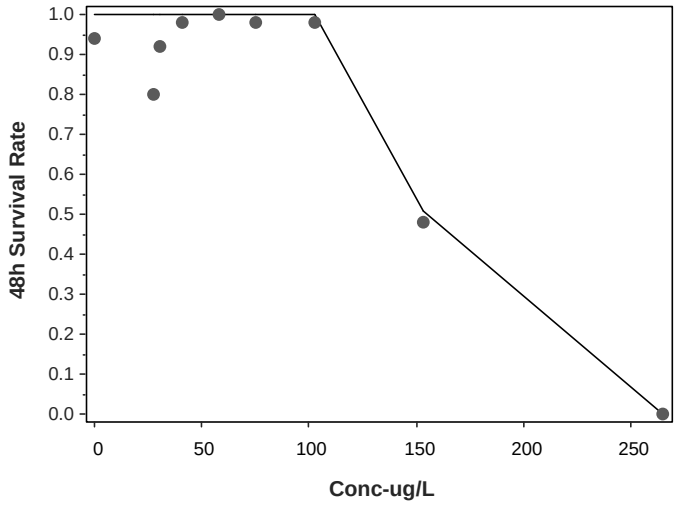
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 0.9000 | 0.8000 |
| 27.2 | | 0.9000 | 0.8000 | 0.8000 | 0.8000 | 0.7000 |
| 30.8 | | 0.6000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 41 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 58.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 75 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 102.4 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 153.5 | | 0.5000 | 0.4000 | 0.3000 | 0.5000 | 0.7000 |
| 265 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 03-1015-1019 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:38 | **Analysis:** | Untrimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 00-4661-1653 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:13 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 06-1523-9474 | **Test Type:** | Survival (48h) | **Analyst:** | Autumn Hudson |
| **Start Date:** | 22 Aug-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Simulated Downstream Water |
| **Ending Date:** | 24 Aug-24 13:46 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 05-4447-9813 | **Code:** | 20741A45 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 21 Aug-24 12:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 21 Aug-24 13:50 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 26h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Total Copper

**Linear Regression Options**

| Model Name | Link Function | Threshold Option | Thresh | PMSD | Optimize | Pooled | Het Corr | Weighted |
|---|---|---|---|---|---|---|---|---|
| Log-Normal (Probit) | η=inv Φ[π] | Control Threshold | 0.057143 | 2.58% | Yes | No | No | Yes |

**Regression Summary**

| Iters | LL | AICc | BIC | Mu | Sigma | Cov | R2 | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | -48.42 | 103.4 | 108.3 | 2.186975 | 0.038030 | -82461.2 | 0.8019 | 3.813 | 0.0048 | Significant Lack-of-Fit |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 153.8 | --- | --- |

**Regression Parameters**

| Parameter | Estimate | Std Error | 95% LCL | 95% UCL | Test Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|
| Threshold | 0.05714 | 0.01241 | 0.03282 | 0.08146 | 4.605 | <1.0E-05 | Significant Parameter |
| Slope | 26.3 | 194.2 | -354.4 | 407 | 0.1354 | 0.8923 | Non-Significant Parameter |
| Intercept | -57.51 | 424.6 | -889.7 | 774.7 | -0.1354 | 0.8923 | Non-Significant Parameter |

**ANOVA Table**

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|
| Model | 48040 | 24020 | 2 | 14900 | <1.0E-05 | Significant Effect |
| Lack of Fit | 26.3 | 4.384 | 6 | 3.813 | 0.0048 | Significant Lack-of-Fit |
| Pure Error | 41.39 | 1.15 | 36 | | | |
| Residual | 67.69 | 1.612 | 42 | | | |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Model Fit | Collapsed Chi-Sq GOF Test | 3.526 | 5.991 | 0.1716 | Non-Significant Heterogeneity |
| | Likelihood Ratio GOF Test | 58.72 | 58.12 | 0.0448 | Significant Heterogeneity |
| Outlier | Grubbs Extreme Value Test | 3.766 | 3.085 | 0.0017 | Outlier Detected |
| Variance | Mod Levene Equality of Variance | 0.6626 | 2.305 | 0.7191 | Equal Variances |
| Distribution | Anderson-Darling A2 Test | 4.884 | 2.492 | <1.0E-05 | Non-Normal Distribution |
| | Shapiro-Wilk W Normality Test | 0.7309 | 0.9498 | <1.0E-05 | Non-Normal Distribution |
| Control Trend | Mann-Kendall Trend Test | 0.09244 | 0.05 | 0.0924 | Non-Significant Control Trend |
| Overdispersion | Tarone C(α) Overdispersion Test | 4.13 | 1.645 | 1.8E-05 | Significant Overdispersion |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 00-4661-1653 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:13 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Conc-ug/L** | **Code** | **Count** | **Mean** | **Median** | **Min** | **Max** | **Std Err** | **Std Dev** | **CV%** | **%Effect** | **ΣA/ΣB** |
| 0 | SD | 5 | 0.9400 | 1.0000 | 0.8000 | 1.0000 | 0.0400 | 0.0894 | 9.52% | 0.00% | 47/50 |
| 27.2 | | 5 | 0.8000 | 0.8000 | 0.7000 | 0.9000 | 0.0316 | 0.0707 | 8.84% | 14.89% | 40/50 |
| 30.8 | | 5 | 0.9200 | 1.0000 | 0.6000 | 1.0000 | 0.0800 | 0.1789 | 19.44% | 2.13% | 46/50 |
| 41 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | -4.26% | 49/50 |
| 58.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | -6.38% | 50/50 |
| 75 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | -4.26% | 49/50 |
| 102.4 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | -4.26% | 49/50 |
| 153.5 | | 5 | 0.4800 | 0.5000 | 0.3000 | 0.7000 | 0.0663 | 0.1483 | 30.90% | 48.94% | 24/50 |
| 265 | | 5 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | --- | 100.00% | 0/50 |

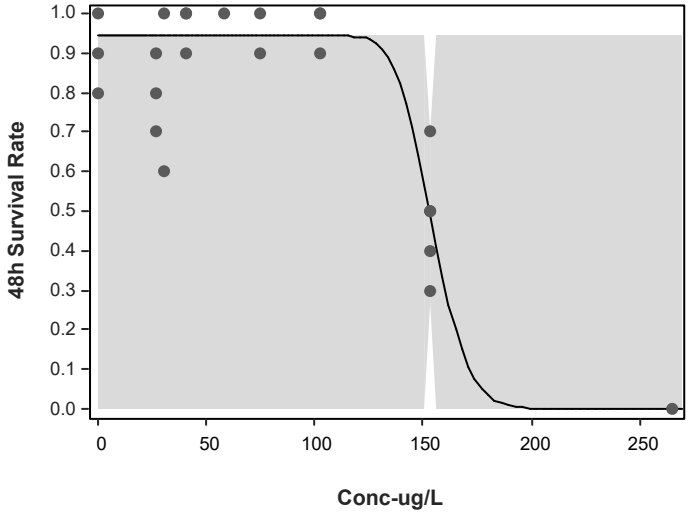
**48h Survival Rate Detail**

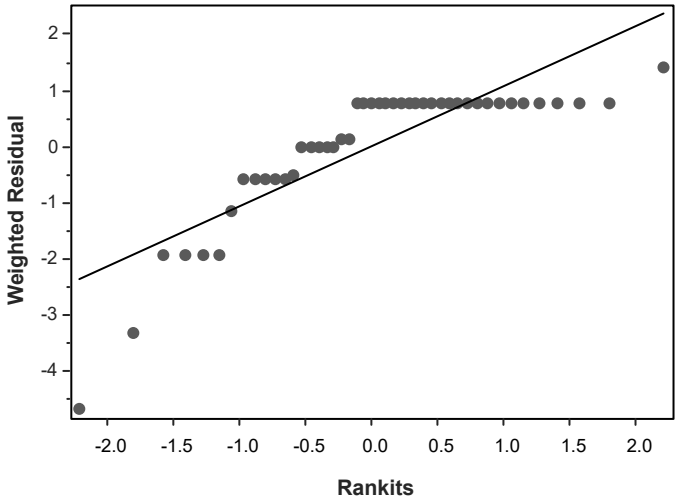
| **Conc-ug/L** | **Code** | **Rep 1** | **Rep 2** | **Rep 3** | **Rep 4** | **Rep 5** |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 0.9000 | 0.8000 |
| 27.2 | | 0.9000 | 0.8000 | 0.8000 | 0.8000 | 0.7000 |
| 30.8 | | 0.6000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 41 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 58.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 75 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 102.4 | | 1.0000 | 1.0000 | 0.9000 | 1.0000 | 1.0000 |
| 153.5 | | 0.5000 | 0.4000 | 0.3000 | 0.5000 | 0.7000 |
| 265 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

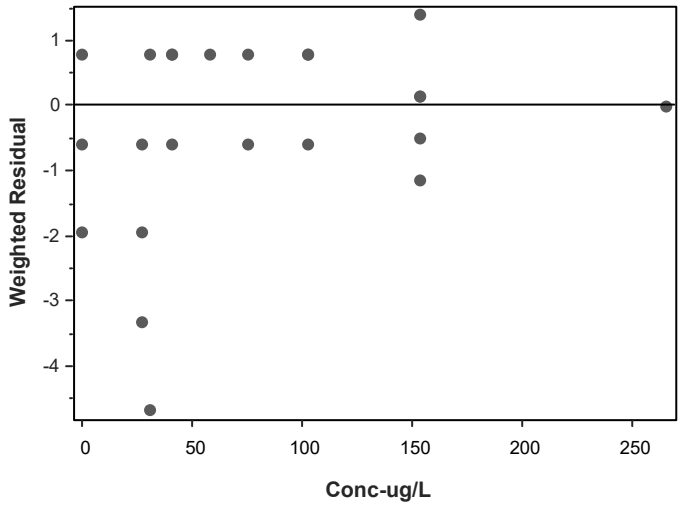
**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

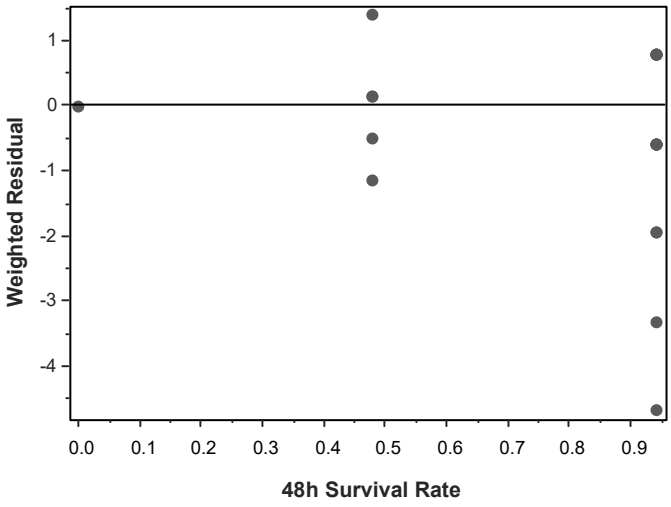
| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 00-4661-1653 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:13 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | FBB08353FBF2A8CBFEE128818AA9E9FB | **Editor ID:** | 000-853-287-7 |

**Graphics** Log-Normal: inv Φ[π]=α+β·log[x]



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 01-0164-6659 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Breanna Ruse |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 07-6760-9391 | **Code:** | 2DC0CA2F | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 12:21 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 13:20 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 25h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 610307 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.05 | 3.128 | 0.0692 | No Outliers Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 31.98 | 27.01 | 39.21 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 5.02 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9900 | 1.00% |
| 6.07 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9900 | 1.00% |
| 8.29 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9867 | 1.33% |
| 10.43 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 13.6 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 20 | | 5 | 0.8200 | 1.0000 | 0.4000 | 1.0000 | 32.72% | 18.00% | 41/50 | 0.8900 | 11.00% |
| 24 | | 5 | 0.9600 | 1.0000 | 0.8000 | 1.0000 | 9.32% | 4.00% | 48/50 | 0.8900 | 11.00% |
| 32.8 | | 5 | 0.4600 | 0.5000 | 0.0000 | 0.9000 | 87.77% | 54.00% | 23/50 | 0.4600 | 54.00% |
| 43.6 | | 5 | 0.1000 | 0.0000 | 0.0000 | 0.4000 | 173.21% | 90.00% | 5/50 | 0.1000 | 90.00% |

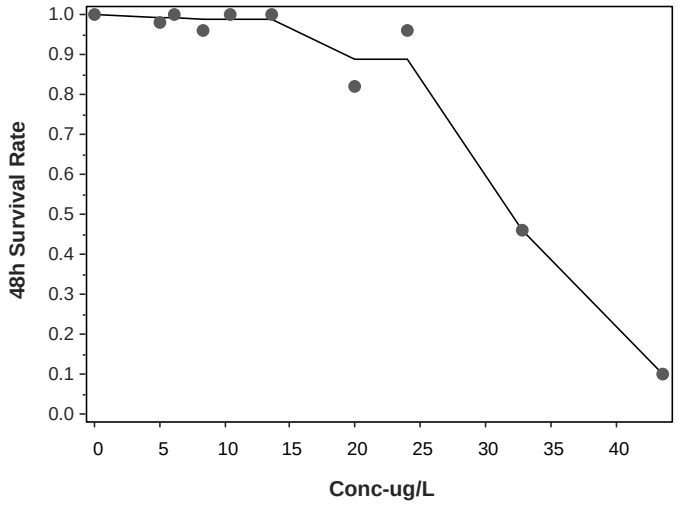
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 5.02 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 6.07 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 8.29 | | 0.9000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 10.43 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 13.6 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20 | | 1.0000 | 1.0000 | 0.7000 | 1.0000 | 0.4000 |
| 24 | | 1.0000 | 1.0000 | 1.0000 | 0.8000 | 1.0000 |
| 32.8 | | 0.0000 | 0.1000 | 0.8000 | 0.9000 | 0.5000 |
| 43.6 | | 0.0000 | 0.1000 | 0.0000 | 0.4000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 01-0164-6659 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 20-3940-7645 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Breanna Ruse |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 07-6760-9391 | **Code:** | 2DC0CA2F | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 12:21 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 13:20 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 25h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Trimmed Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0 | 10.00% | 1.504 | 0.01364 | 31.95 | 30 | 34.02 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.05 | 3.128 | 0.0692 | No Outliers Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 5.02 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9900 | 1.00% |
| 6.07 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9900 | 1.00% |
| 8.29 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9867 | 1.33% |
| 10.43 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 13.6 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 20 | | 5 | 0.8200 | 1.0000 | 0.4000 | 1.0000 | 32.72% | 18.00% | 41/50 | 0.8900 | 11.00% |
| 24 | | 5 | 0.9600 | 1.0000 | 0.8000 | 1.0000 | 9.32% | 4.00% | 48/50 | 0.8900 | 11.00% |
| 32.8 | | 5 | 0.4600 | 0.5000 | 0.0000 | 0.9000 | 87.77% | 54.00% | 23/50 | 0.4600 | 54.00% |
| 43.6 | | 5 | 0.1000 | 0.0000 | 0.0000 | 0.4000 | 173.21% | 90.00% | 5/50 | 0.1000 | 90.00% |

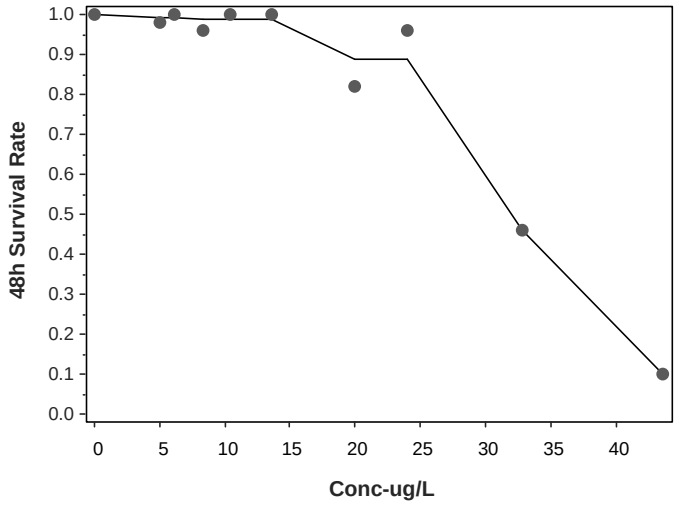
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 5.02 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 6.07 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 8.29 | | 0.9000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 10.43 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 13.6 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20 | | 1.0000 | 1.0000 | 0.7000 | 1.0000 | 0.4000 |
| 24 | | 1.0000 | 1.0000 | 1.0000 | 0.8000 | 1.0000 |
| 32.8 | | 0.0000 | 0.1000 | 0.8000 | 0.9000 | 0.5000 |
| 43.6 | | 0.0000 | 0.1000 | 0.0000 | 0.4000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 20-3940-7645 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 11-5050-2881 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:21 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Breanna Ruse |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 07-6760-9391 | **Code:** | 2DC0CA2F | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 12:21 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 13:20 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 25h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Regression Options**

| Model Name | Link Function | Threshold Option | Thresh | PMSD | Optimize | Pooled | Het Corr | Weighted |
|---|---|---|---|---|---|---|---|---|
| Log-Normal (Probit) | η=inv Φ[π] | Control Threshold | 0.011694 | 2.10% | Yes | No | Yes | Yes |

**Regression Summary**

| Iters | LL | AICc | BIC | Mu | Sigma | Cov | R2 | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | -65.56 | 137.6 | 142.9 | 1.500796 | 0.12669 | -1.38599 | 0.7591 | 1.31 | 0.2710 | Non-Significant Lack-of-Fit |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 31.68 | 28.35 | 35.83 |

**Regression Parameters**

| Parameter | Estimate | Std Error | 95% LCL | 95% UCL | Test Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|
| Threshold | 0.01169 | 0.0103 | -0.00902 | 0.03241 | 1.136 | 0.2618 | Non-Significant Parameter |
| Slope | 7.893 | 1.573 | 4.729 | 11.06 | 5.019 | <1.0E-05 | Significant Parameter |
| Intercept | -11.85 | 2.341 | -16.56 | -7.137 | -5.06 | <1.0E-05 | Significant Parameter |

**ANOVA Table**

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|
| Model | 436.2 | 218.1 | 2 | 82.34 | <1.0E-05 | Significant Effect |
| Lack of Fit | 23.21 | 3.316 | 7 | 1.31 | 0.2710 | Non-Significant Lack-of-Fit |
| Pure Error | 101.3 | 2.532 | 40 | | | |
| Residual | 124.5 | 2.649 | 47 | | | |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Model Fit | Likelihood Ratio GOF Test | 104 | 64 | <1.0E-05 | Significant Heterogeneity |
| | Pearson Chi-Sq GOF Test | 124.5 | 64 | <1.0E-05 | Significant Heterogeneity |
| Outlier | Grubbs Extreme Value Test | 4.177 | 3.128 | 0.0002 | Outlier Detected |
| Variance | Mod Levene Equality of Variance | 2.076 | 2.211 | 0.0647 | Equal Variances |
| Distribution | Anderson-Darling A2 Test | 5.086 | 2.492 | <1.0E-05 | Non-Normal Distribution |
| | Shapiro-Wilk W Normality Test | 0.779 | 0.954 | <1.0E-05 | Non-Normal Distribution |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |
| Overdispersion | Tarone C(α) Overdispersion Test | 7.083 | 1.645 | <1.0E-05 | Significant Overdispersion |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 11-5050-2881 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:21 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Conc-ug/L** | **Code** | **Count** | **Mean** | **Median** | **Min** | **Max** | **Std Err** | **Std Dev** | **CV%** | **%Effect** | **ΣA/ΣB** |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 5.02 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | 2.00% | 49/50 |
| 6.07 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 8.29 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 0.0245 | 0.0548 | 5.71% | 4.00% | 48/50 |
| 10.43 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 13.6 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 20 | | 5 | 0.8200 | 1.0000 | 0.4000 | 1.0000 | 0.1200 | 0.2683 | 32.72% | 18.00% | 41/50 |
| 24 | | 5 | 0.9600 | 1.0000 | 0.8000 | 1.0000 | 0.0400 | 0.0894 | 9.32% | 4.00% | 48/50 |
| 32.8 | | 5 | 0.4600 | 0.5000 | 0.0000 | 0.9000 | 0.1806 | 0.4037 | 87.77% | 54.00% | 23/50 |
| 43.6 | | 5 | 0.1000 | 0.0000 | 0.0000 | 0.4000 | 0.0775 | 0.1732 | 173.21% | 90.00% | 5/50 |

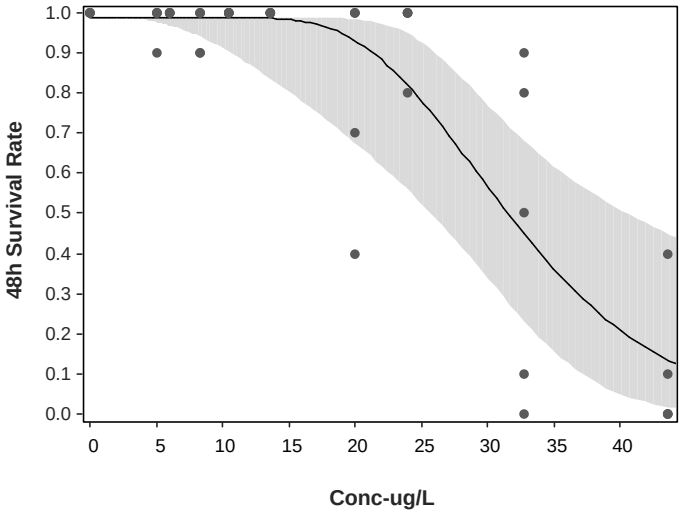
**48h Survival Rate Detail**

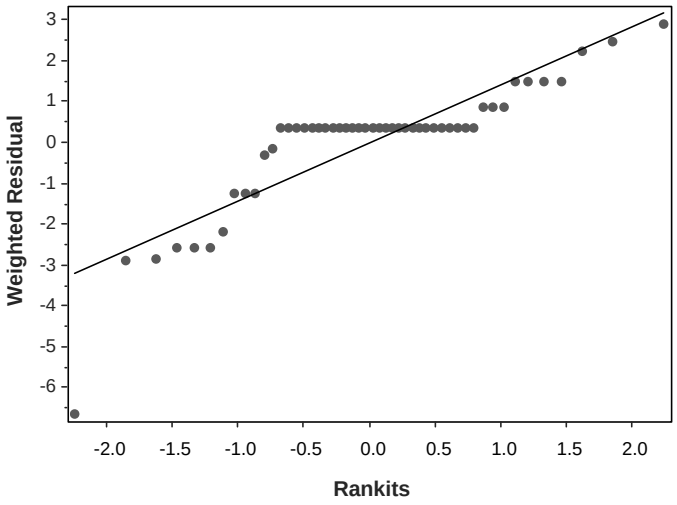
| **Conc-ug/L** | **Code** | **Rep 1** | **Rep 2** | **Rep 3** | **Rep 4** | **Rep 5** |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 5.02 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 6.07 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 8.29 | | 0.9000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 10.43 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 13.6 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20 | | 1.0000 | 1.0000 | 0.7000 | 1.0000 | 0.4000 |
| 24 | | 1.0000 | 1.0000 | 1.0000 | 0.8000 | 1.0000 |
| 32.8 | | 0.0000 | 0.1000 | 0.8000 | 0.9000 | 0.5000 |
| 43.6 | | 0.0000 | 0.1000 | 0.0000 | 0.4000 | 0.0000 |

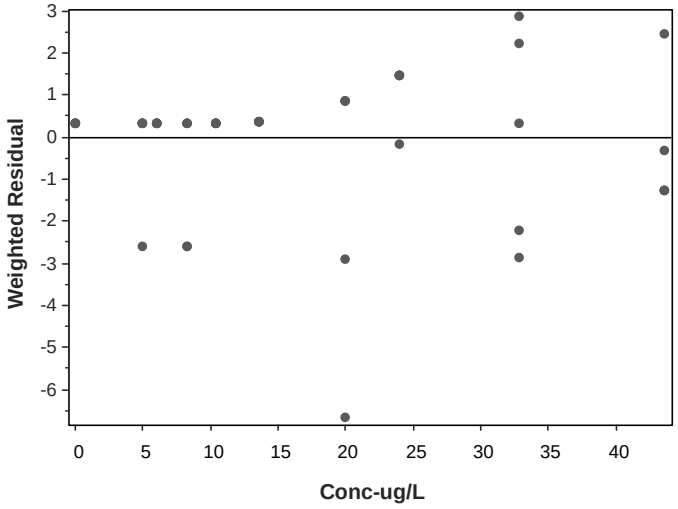
**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

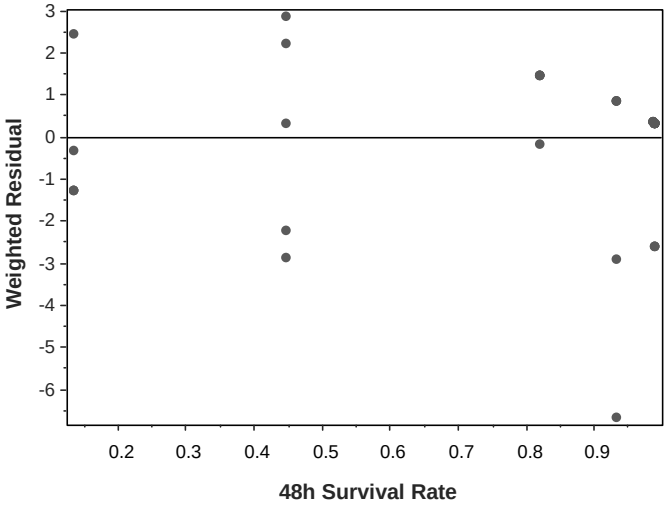
| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 11-5050-2881 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:21 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 590685925E112710F3C9D67E6CBFE255 | **Editor ID:** | 000-853-287-7 |

**Graphics** Log-Normal: inv Φ[π]=α+β·log[x]



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 14-4463-4163 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:30 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Breanna Ruse |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 17-8037-2633 | **Code:** | 6A1E5499 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 12:21 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 13:20 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 25h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 2002977 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.05 | 3.128 | 0.0692 | No Outliers Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 39.37 | 34.81 | 48.75 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 5.59 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9900 | 1.00% |
| 6.58 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9900 | 1.00% |
| 9.8 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9867 | 1.33% |
| 13 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 15.9 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 25.2 | | 5 | 0.8200 | 1.0000 | 0.4000 | 1.0000 | 32.72% | 18.00% | 41/50 | 0.8900 | 11.00% |
| 32.2 | | 5 | 0.9600 | 1.0000 | 0.8000 | 1.0000 | 9.32% | 4.00% | 48/50 | 0.8900 | 11.00% |
| 40.1 | | 5 | 0.4600 | 0.5000 | 0.0000 | 0.9000 | 87.77% | 54.00% | 23/50 | 0.4600 | 54.00% |
| 54.6 | | 5 | 0.1000 | 0.0000 | 0.0000 | 0.4000 | 173.21% | 90.00% | 5/50 | 0.1000 | 90.00% |

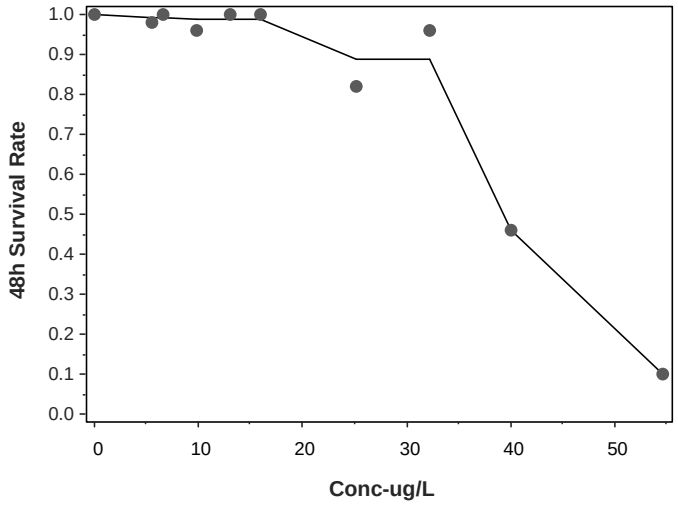
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 5.59 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 6.58 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 9.8 | | 0.9000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 13 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 15.9 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 25.2 | | 1.0000 | 1.0000 | 0.7000 | 1.0000 | 0.4000 |
| 32.2 | | 1.0000 | 1.0000 | 1.0000 | 0.8000 | 1.0000 |
| 40.1 | | 0.0000 | 0.1000 | 0.8000 | 0.9000 | 0.5000 |
| 54.6 | | 0.0000 | 0.1000 | 0.0000 | 0.4000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 14-4463-4163 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:30 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 09-2933-8387 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:30 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Breanna Ruse |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 17-8037-2633 | **Code:** | 6A1E5499 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 12:21 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 13:20 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 25h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Trimmed Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0 | 10.00% | 1.605 | 0.01273 | 40.28 | 37.98 | 42.71 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 3.05 | 3.128 | 0.0692 | No Outliers Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 5.59 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 4.56% | 2.00% | 49/50 | 0.9900 | 1.00% |
| 6.58 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9900 | 1.00% |
| 9.8 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9867 | 1.33% |
| 13 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 15.9 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9867 | 1.33% |
| 25.2 | | 5 | 0.8200 | 1.0000 | 0.4000 | 1.0000 | 32.72% | 18.00% | 41/50 | 0.8900 | 11.00% |
| 32.2 | | 5 | 0.9600 | 1.0000 | 0.8000 | 1.0000 | 9.32% | 4.00% | 48/50 | 0.8900 | 11.00% |
| 40.1 | | 5 | 0.4600 | 0.5000 | 0.0000 | 0.9000 | 87.77% | 54.00% | 23/50 | 0.4600 | 54.00% |
| 54.6 | | 5 | 0.1000 | 0.0000 | 0.0000 | 0.4000 | 173.21% | 90.00% | 5/50 | 0.1000 | 90.00% |

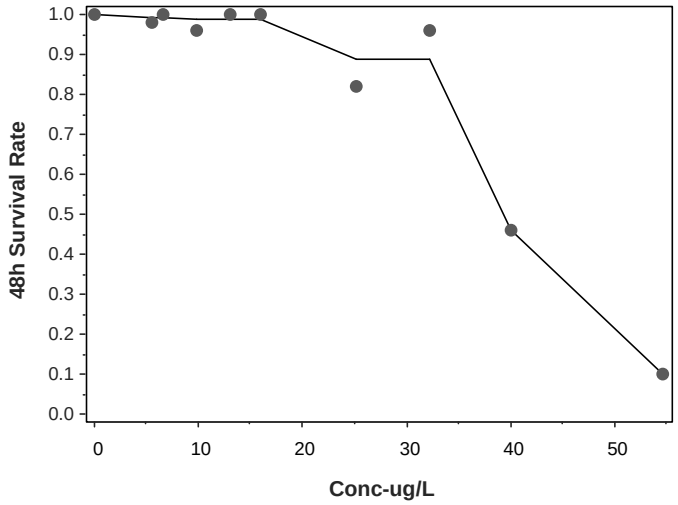
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 5.59 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 6.58 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 9.8 | | 0.9000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 13 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 15.9 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 25.2 | | 1.0000 | 1.0000 | 0.7000 | 1.0000 | 0.4000 |
| 32.2 | | 1.0000 | 1.0000 | 1.0000 | 0.8000 | 1.0000 |
| 40.1 | | 0.0000 | 0.1000 | 0.8000 | 0.9000 | 0.5000 |
| 54.6 | | 0.0000 | 0.1000 | 0.0000 | 0.4000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 09-2933-8387 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:30 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 18-5084-5795 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:20 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Breanna Ruse |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 17-8037-2633 | **Code:** | 6A1E5499 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 12:21 | **Material:** | Copper-spiked LW | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 13:20 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 25h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Regression Options**

| Model Name | Link Function | Threshold Option | Thresh | PMSD | Optimize | Pooled | Het Corr | Weighted |
|---|---|---|---|---|---|---|---|---|
| Log-Normal (Probit) | η=inv Φ[π] | Control Threshold | 0.012087 | 2.15% | Yes | No | Yes | Yes |

**Regression Summary**

| Iters | LL | AICc | BIC | Mu | Sigma | Cov | R2 | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | -68.68 | 143.9 | 149.1 | 1.602277 | 0.124834 | -1.69968 | 0.7465 | 1.577 | 0.1705 | Non-Significant Lack-of-Fit |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 40.02 | 35.85 | 45.4 |

**Regression Parameters**

| Parameter | Estimate | Std Error | 95% LCL | 95% UCL | Test Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|---|
| Threshold | 0.01209 | 0.01055 | -0.00914 | 0.03332 | 1.145 | 0.2578 | Non-Significant Parameter |
| Slope | 8.011 | 1.723 | 4.545 | 11.48 | 4.65 | 2.7E-05 | Significant Parameter |
| Intercept | -12.84 | 2.736 | -18.34 | -7.33 | -4.691 | 2.4E-05 | Significant Parameter |

**ANOVA Table**

| Source | Sum Squares | Mean Square | DF | F Stat | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|---|
| Model | 424.8 | 212.4 | 2 | 76.76 | <1.0E-05 | Significant Effect |
| Lack of Fit | 28.12 | 4.017 | 7 | 1.577 | 0.1705 | Non-Significant Lack-of-Fit |
| Pure Error | 101.9 | 2.548 | 40 | | | |
| Residual | 130.1 | 2.767 | 47 | | | |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Model Fit | Likelihood Ratio GOF Test | 110.2 | 64 | <1.0E-05 | Significant Heterogeneity |
| | Pearson Chi-Sq GOF Test | 130.1 | 64 | <1.0E-05 | Significant Heterogeneity |
| Outlier | Grubbs Extreme Value Test | 4.204 | 3.128 | 0.0002 | Outlier Detected |
| Variance | Mod Levene Equality of Variance | 2.096 | 2.211 | 0.0623 | Equal Variances |
| Distribution | Anderson-Darling A2 Test | 5.178 | 2.492 | <1.0E-05 | Non-Normal Distribution |
| | Shapiro-Wilk W Normality Test | 0.7702 | 0.954 | <1.0E-05 | Non-Normal Distribution |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |
| Overdispersion | Tarone C(α) Overdispersion Test | 7.083 | 1.645 | <1.0E-05 | Significant Overdispersion |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 18-5084-5795 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:20 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Conc-ug/L** | **Code** | **Count** | **Mean** | **Median** | **Min** | **Max** | **Std Err** | **Std Dev** | **CV%** | **%Effect** | **ΣA/ΣB** |
| 0 | MH | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 5.59 | | 5 | 0.9800 | 1.0000 | 0.9000 | 1.0000 | 0.0200 | 0.0447 | 4.56% | 2.00% | 49/50 |
| 6.58 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 9.8 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 0.0245 | 0.0548 | 5.71% | 4.00% | 48/50 |
| 13 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 15.9 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.00% | 0.00% | 50/50 |
| 25.2 | | 5 | 0.8200 | 1.0000 | 0.4000 | 1.0000 | 0.1200 | 0.2683 | 32.72% | 18.00% | 41/50 |
| 32.2 | | 5 | 0.9600 | 1.0000 | 0.8000 | 1.0000 | 0.0400 | 0.0894 | 9.32% | 4.00% | 48/50 |
| 40.1 | | 5 | 0.4600 | 0.5000 | 0.0000 | 0.9000 | 0.1806 | 0.4037 | 87.77% | 54.00% | 23/50 |
| 54.6 | | 5 | 0.1000 | 0.0000 | 0.0000 | 0.4000 | 0.0775 | 0.1732 | 173.21% | 90.00% | 5/50 |

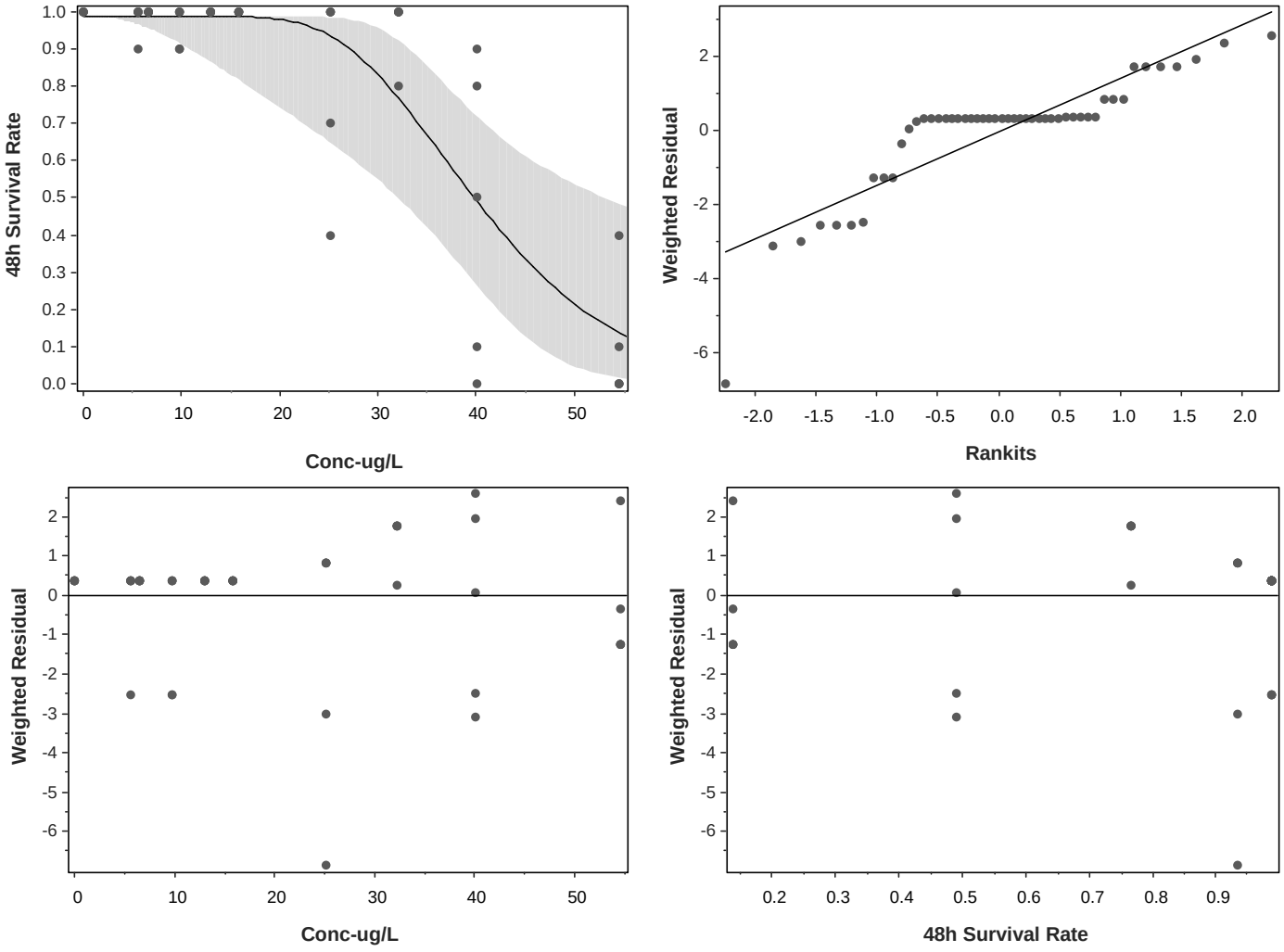
**48h Survival Rate Detail**

| **Conc-ug/L** | **Code** | **Rep 1** | **Rep 2** | **Rep 3** | **Rep 4** | **Rep 5** |
|---|---|---|---|---|---|---|
| 0 | MH | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 5.59 | | 0.9000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 6.58 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 9.8 | | 0.9000 | 0.9000 | 1.0000 | 1.0000 | 1.0000 |
| 13 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 15.9 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 25.2 | | 1.0000 | 1.0000 | 0.7000 | 1.0000 | 0.4000 |
| 32.2 | | 1.0000 | 1.0000 | 1.0000 | 0.8000 | 1.0000 |
| 40.1 | | 0.0000 | 0.1000 | 0.8000 | 0.9000 | 0.5000 |
| 54.6 | | 0.0000 | 0.1000 | 0.0000 | 0.4000 | 0.0000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 18-5084-5795 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 17 Jan-25 7:20 | **Analysis:** | Linear Regression (GLM) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | D6DBD8C0149E7B675C22BEF90028EDE | **Editor ID:** | 000-853-287-7 |

**Graphics** Log-Normal: inv Φ[π]=α+β·log[x]



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 06-8272-0122 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:25 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CC0EA7B5505ADE194E3F15A58A4A0904 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Francisco Aparicio |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 12-6357-8041 | **Code:** | 4B50ABB9 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 05:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 15:15 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 33h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 1954091 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 4.773 | 3.128 | <1.0E-05 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 157.5 | 142.6 | --- |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 20.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 24.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 32.9 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9933 | 0.67% |
| 40.1 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 54.8 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 68.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 85.8 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 119.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 159 | | 5 | 0.4800 | 0.4000 | 0.1000 | 0.8000 | 57.81% | 52.00% | 24/50 | 0.4800 | 52.00% |

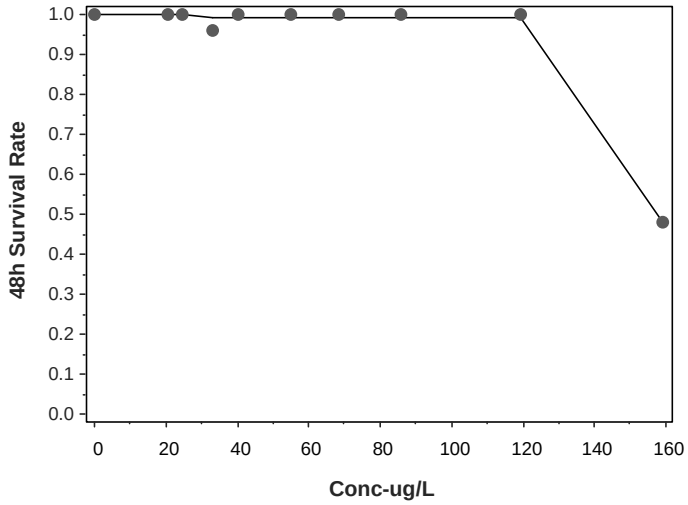
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 24.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 32.9 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 0.9000 |
| 40.1 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 54.8 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 68.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 85.8 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 119.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 159 | | 0.4000 | 0.1000 | 0.4000 | 0.7000 | 0.8000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 06-8272-0122 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:25 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CC0EA7B5505ADE194E3F15A58A4A0904 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 07-1845-6889 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:25 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CC0EA7B5505ADE194E3F15A58A4A0904 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 11-5780-3998 | **Test Type:** | Survival (48h) | **Analyst:** | Francisco Aparicio |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Mod-Hard Synthetic Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 12-6357-8041 | **Code:** | 4B50ABB9 | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 05:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 15:15 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 33h | **Client:** | A&S Engineers | | |

**Comments:** Lab Water Total Copper

**Trimmed Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0 | 48.00% | 2.197 | 0.01645 | 157.2 | 145.8 | 169.6 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 4.773 | 3.128 | <1.0E-05 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 20.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 24.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 32.9 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9933 | 0.67% |
| 40.1 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 54.8 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 68.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 85.8 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 119.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 159 | | 5 | 0.4800 | 0.4000 | 0.1000 | 0.8000 | 57.81% | 52.00% | 24/50 | 0.4800 | 52.00% |

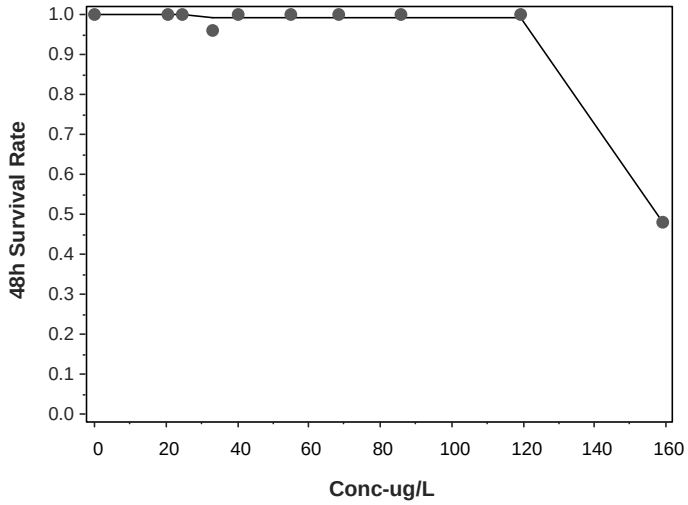
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 24.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 32.9 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 0.9000 |
| 40.1 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 54.8 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 68.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 85.8 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 119.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 159 | | 0.4000 | 0.1000 | 0.4000 | 0.7000 | 0.8000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 07-1845-6889 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:25 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | CC0EA7B5505ADE194E3F15A58A4A0904 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 20-4920-4962 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 14BBF80AA61931ADC225ED5A38AA8C98 | **Editor ID:** | 000-853-287-7 |

| | | | | | |
|---|---|---|---|---|---|
| **Batch ID:** | 17-7400-6602 | **Test Type:** | Survival (48h) | **Analyst:** | Francisco Aparicio |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Simulated Downstream Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID:** | 09-0835-5740 | **Code:** | 3624689C | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 05:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 15:15 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 33h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Total Copper

**Linear Interpolation Options**

| X Transform | Y Transform | Seed | Resamples | Exp 95% CL | Method |
|---|---|---|---|---|---|
| Linear | Linear | 1725517 | 200 | Yes | Two-Point Interpolation |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 4.773 | 3.128 | <1.0E-05 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**Point Estimates**

| Level | ug/L | 95% LCL | 95% UCL |
|---|---|---|---|
| EC50 | 191 | 164.8 | --- |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 20.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 24.7 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 33.1 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9933 | 0.67% |
| 41.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 53.9 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 68.8 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 97.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 129 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 193.5 | | 5 | 0.4800 | 0.4000 | 0.1000 | 0.8000 | 57.81% | 52.00% | 24/50 | 0.4800 | 52.00% |

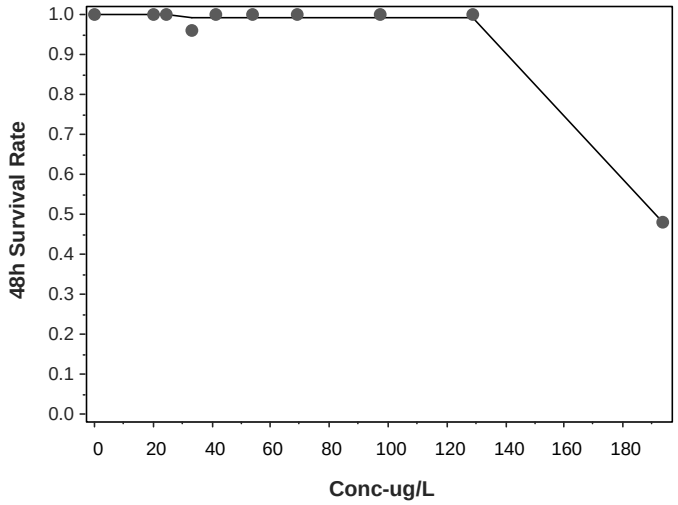
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 24.7 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 33.1 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 0.9000 |
| 41.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 53.9 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 68.8 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 97.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 129 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 193.5 | | 0.4000 | 0.1000 | 0.4000 | 0.7000 | 0.8000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 20-4920-4962 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Linear Interpolation (ICPIN) | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 14BBF80AA61931ADC225ED5A38AA8C98 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 08-7181-3378 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 14BBF80AA61931ADC225ED5A38AA8C98 | **Editor ID:** | 000-853-287-7 |
| **Batch ID:** | 17-7400-6602 | **Test Type:** | Survival (48h) | **Analyst:** | Francisco Aparicio |
| **Start Date:** | 04 Oct-24 13:45 | **Protocol:** | EPA/821/R-02-013 (2002) | **Diluent:** | Simulated Downstream Water |
| **Ending Date:** | 06 Oct-24 13:45 | **Species:** | Ceriodaphnia dubia | **Brine:** | |
| **Test Length:** | 48h | **Taxon:** | Branchiopoda | **Source:** | NWDLS **Age:** <24 |
| **Sample ID:** | 09-0835-5740 | **Code:** | 3624689C | **Project:** | Chimney Hill-Mud |
| **Sample Date:** | 03 Oct-24 05:00 | **Material:** | Copper-spiked SD | **Source:** | WQ0012304001 (Chimney Hill) |
| **Receipt Date:** | 03 Oct-24 15:15 | **CAS (PC):** | | **Station:** | |
| **Sample Age:** | 33h | **Client:** | A&S Engineers | | |

**Comments:** Simulated Downstream Total Copper

**Trimmed Spearman-Kärber Estimates**

| Threshold Option | Threshold | Trim | Mu | Sigma | EC50 | 95% LCL | 95% UCL |
|---|---|---|---|---|---|---|---|
| Control Threshold | 0 | 48.00% | 2.28 | 0.02329 | 190.5 | 171.1 | 212 |

**Residual Analysis**

| Attribute | Method | Test Stat | Critical | P-Value | Decision(α:5%) |
|---|---|---|---|---|---|
| Outlier | Grubbs Extreme Value Test | 4.773 | 3.128 | <1.0E-05 | Outlier Detected |
| Control Trend | Mann-Kendall Trend Test | 1 | 0.05 | 1.0000 | Non-Significant Control Trend |

**48h Survival Rate Summary**

| | | | Calculated Variate(A/B) | | | | | | | Isotonic Variate | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-ug/L | Code | Count | Mean | Median | Min | Max | CV% | %Effect | ΣA/ΣB | Mean | %Effect |
| 0 | SD | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 20.2 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 24.7 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 1.0000 | 0.00% |
| 33.1 | | 5 | 0.9600 | 1.0000 | 0.9000 | 1.0000 | 5.71% | 4.00% | 48/50 | 0.9933 | 0.67% |
| 41.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 53.9 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 68.8 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 97.4 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 129 | | 5 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.00% | 0.00% | 50/50 | 0.9933 | 0.67% |
| 193.5 | | 5 | 0.4800 | 0.4000 | 0.1000 | 0.8000 | 57.81% | 52.00% | 24/50 | 0.4800 | 52.00% |

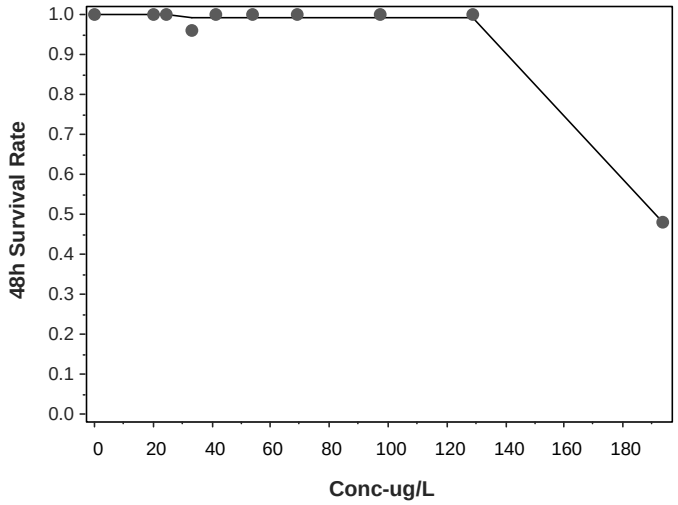
**48h Survival Rate Detail**

| Conc-ug/L | Code | Rep 1 | Rep 2 | Rep 3 | Rep 4 | Rep 5 |
|---|---|---|---|---|---|---|
| 0 | SD | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 20.2 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 24.7 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 33.1 | | 1.0000 | 0.9000 | 1.0000 | 1.0000 | 0.9000 |
| 41.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 53.9 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 68.8 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 97.4 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 129 | | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 193.5 | | 0.4000 | 0.1000 | 0.4000 | 0.7000 | 0.8000 |

**Ceriodaphnia 48-h Acute Survival Test** **NWDLS Environ. Toxicol. Lab**

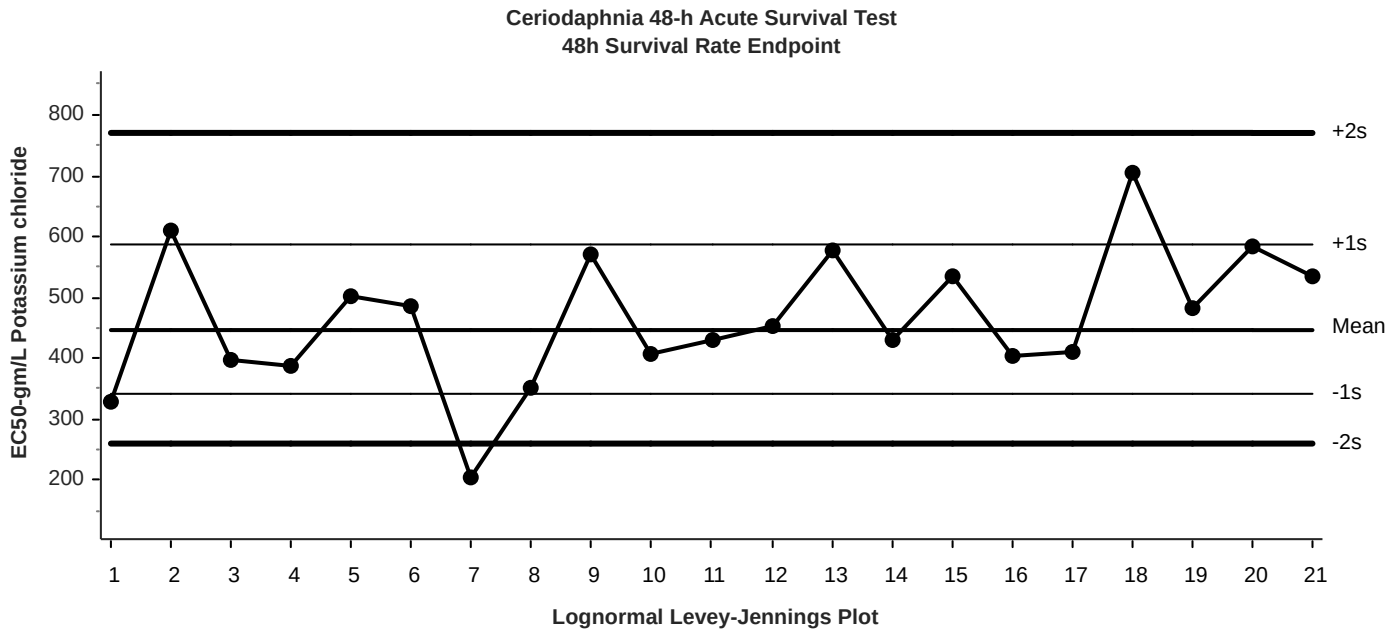
| | | | | | |
|---|---|---|---|---|---|
| **Analysis ID:** | 08-7181-3378 | **Endpoint:** | 48h Survival Rate | **CETIS Version:** | CETIS v2.1.5 |
| **Analyzed:** | 04 Nov-24 16:27 | **Analysis:** | Trimmed Spearman-Kärber | **Status Level:** | 1 |
| **Edit Date:** | 04 Nov-24 0:00 | **MD5 Hash:** | 14BBF80AA61931ADC225ED5A38AA8C98 | **Editor ID:** | 000-853-287-7 |

**Graphics**



**Ceriodaphnia 48-h Acute Survival Test** **All Matching Labs**

**Test Type:** Survival (48h) **Organism:** Ceriodaphnia dubia **Material:** Potassium chloride
**Protocol:** EPA/821/R-02-013 (2002) **Endpoint:** 48h Survival Rate **Source:** Reference Toxicant-REF




**Mean:** 448.5 **Count:** 20 **-1s Warning Limit:** 342 **-2s Action Limit:** 260
**Sigma:** NA **CV:** 27.70% **+1s Warning Limit:** 589 **+2s Action Limit:** 773

**Quality Control Data**

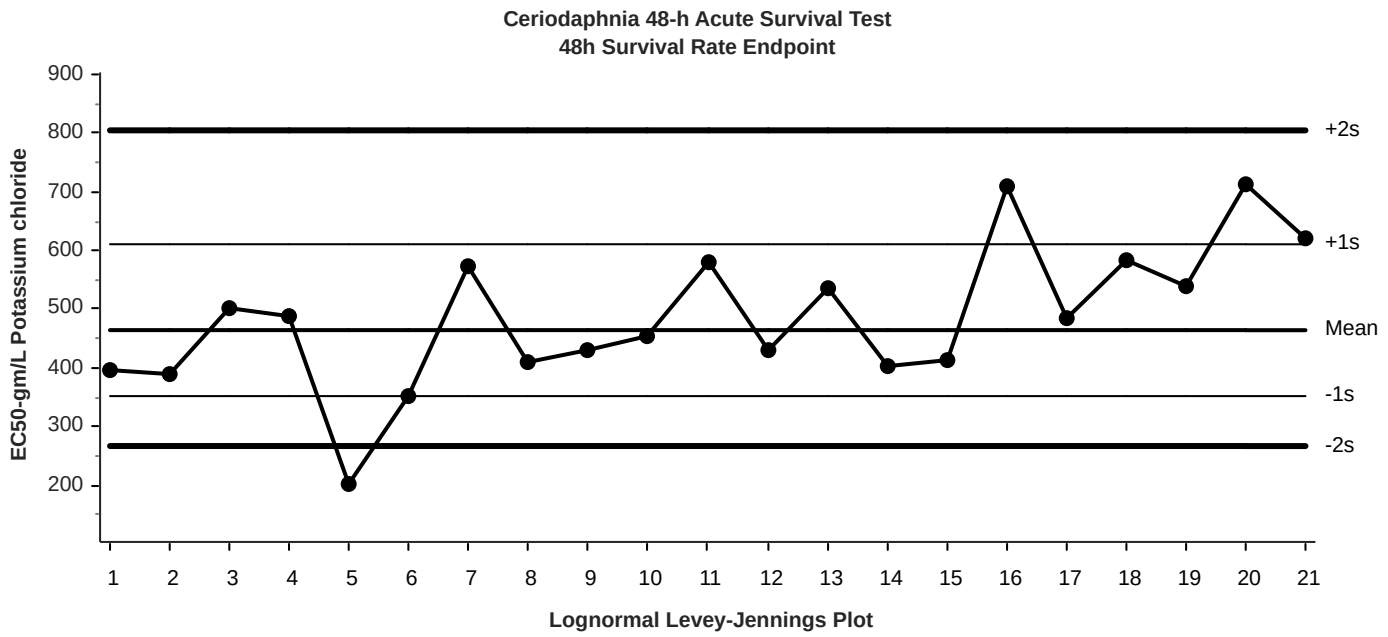
| Point | Year | Month | Day | Time | QC Data | Delta | Sigma | Warning | Action | Test ID | Analysis ID | Laboratory |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2023 | Mar | 24 | 13:00 | 327.9 | -120.7 | -1.151 | (-) | | 06-5847-4604 | 15-2751-6394 | NWDLS Environ. Toxicol. |
| 2 | | Apr | 5 | 13:00 | 610.9 | 162.4 | 1.135 | (+) | | 12-5985-1273 | 19-1313-5861 | NWDLS Environ. Toxicol. |
| 3 | | | 26 | 10:40 | 396.9 | -51.64 | -0.4494 | | | 12-0729-0762 | 21-0390-2249 | NWDLS Environ. Toxicol. |
| 4 | | May | 4 | 13:00 | 389 | -59.55 | -0.5233 | | | 09-2877-5993 | 07-4033-4588 | NWDLS Environ. Toxicol. |
| 5 | | Jun | 1 | 11:15 | 502.5 | 53.96 | 0.4173 | | | 05-2289-6791 | 11-5191-9568 | NWDLS Environ. Toxicol. |
| 6 | | Jul | 5 | 11:15 | 488.1 | 39.53 | 0.3103 | | | 07-7481-7599 | 19-6955-9006 | NWDLS Environ. Toxicol. |
| 7 | | Aug | 3 | 10:20 | 203.1 | -245.5 | -2.911 | (-) | (-) | 12-8694-7019 | 13-8919-7389 | NWDLS Environ. Toxicol. |
| 8 | | | 9 | 13:30 | 350.8 | -97.7 | -0.9025 | | | 05-7717-0596 | 03-1379-9928 | NWDLS Environ. Toxicol. |
| 9 | | Sep | 6 | 11:35 | 571.1 | 122.6 | 0.8874 | | | 21-4265-1862 | 09-1768-7769 | NWDLS Environ. Toxicol. |
| 10 | | Oct | 3 | 11:20 | 407.8 | -40.72 | -0.3496 | | | 14-4865-2899 | 03-7124-5491 | NWDLS Environ. Toxicol. |
| 11 | | Nov | 15 | 10:35 | 429.3 | -19.26 | -0.1612 | | | 14-8158-8479 | 21-0962-8076 | NWDLS Environ. Toxicol. |
| 12 | | Dec | 1 | 9:45 | 453.8 | 5.219 | 0.0425 | | | 13-4829-3902 | 04-5678-6233 | NWDLS Environ. Toxicol. |
| 13 | 2024 | Jan | 2 | 13:50 | 579.6 | 131.1 | 0.9418 | | | 12-9423-8910 | 12-4413-9077 | NWDLS Environ. Toxicol. |
| 14 | | Feb | 7 | 13:15 | 430.9 | -17.68 | -0.1477 | | | 17-5918-4926 | 11-1398-9198 | NWDLS Environ. Toxicol. |
| 15 | | Mar | 14 | 15:18 | 536.7 | 88.2 | 0.6595 | | | 01-0010-5331 | 08-2433-4131 | NWDLS Environ. Toxicol. |
| 16 | | Apr | 3 | 15:25 | 403.4 | -45.17 | -0.3899 | | | 05-7679-6947 | 14-1667-5254 | NWDLS Environ. Toxicol. |
| 17 | | May | 2 | 10:45 | 412.3 | -36.2 | -0.3092 | | | 16-8782-0175 | 07-9000-8378 | NWDLS Environ. Toxicol. |
| 18 | | Jun | 6 | 13:40 | 707.5 | 258.9 | 1.674 | (+) | | 19-5385-9060 | 16-2631-3412 | NWDLS Environ. Toxicol. |
| 19 | | | 12 | 14:26 | 482.9 | 34.36 | 0.2711 | | | 13-7561-6336 | 06-1458-6011 | NWDLS Environ. Toxicol. |
| 20 | | Jul | 1 | 14:45 | 583.8 | 135.3 | 0.9683 | | | 19-8309-1944 | 16-0966-0460 | NWDLS Environ. Toxicol. |
| 21 | | Aug | 1 | 12:45 | 537 | 88.45 | 0.6612 | | | 13-9977-3902 | 09-4481-8344 | NWDLS Environ. Toxicol. |

# CETIS QC Plot

**Report Date:** 04 Oct-24 12:19 ( 1 of 1)

**Ceriodaphnia 48-h Acute Survival Test** **All Matching Labs**

| | | | | | |
|---|---|---|---|---|---|
| **Test Type:** | Survival (48h) | **Organism:** | Ceriodaphnia dubia | **Material:** | Potassium chloride |
| **Protocol:** | EPA/821/R-02-013 (2002) | **Endpoint:** | 48h Survival Rate | **Source:** | Reference Toxicant-REF |




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Mean:** | 463.1 | **Count:** | 20 | **-1s Warning Limit:** | 352 | **-2s Action Limit:** | 267 |
| **Sigma:** | NA | **CV:** | 28.00% | **+1s Warning Limit:** | 610 | **+2s Action Limit:** | 803 |

**Quality Control Data**

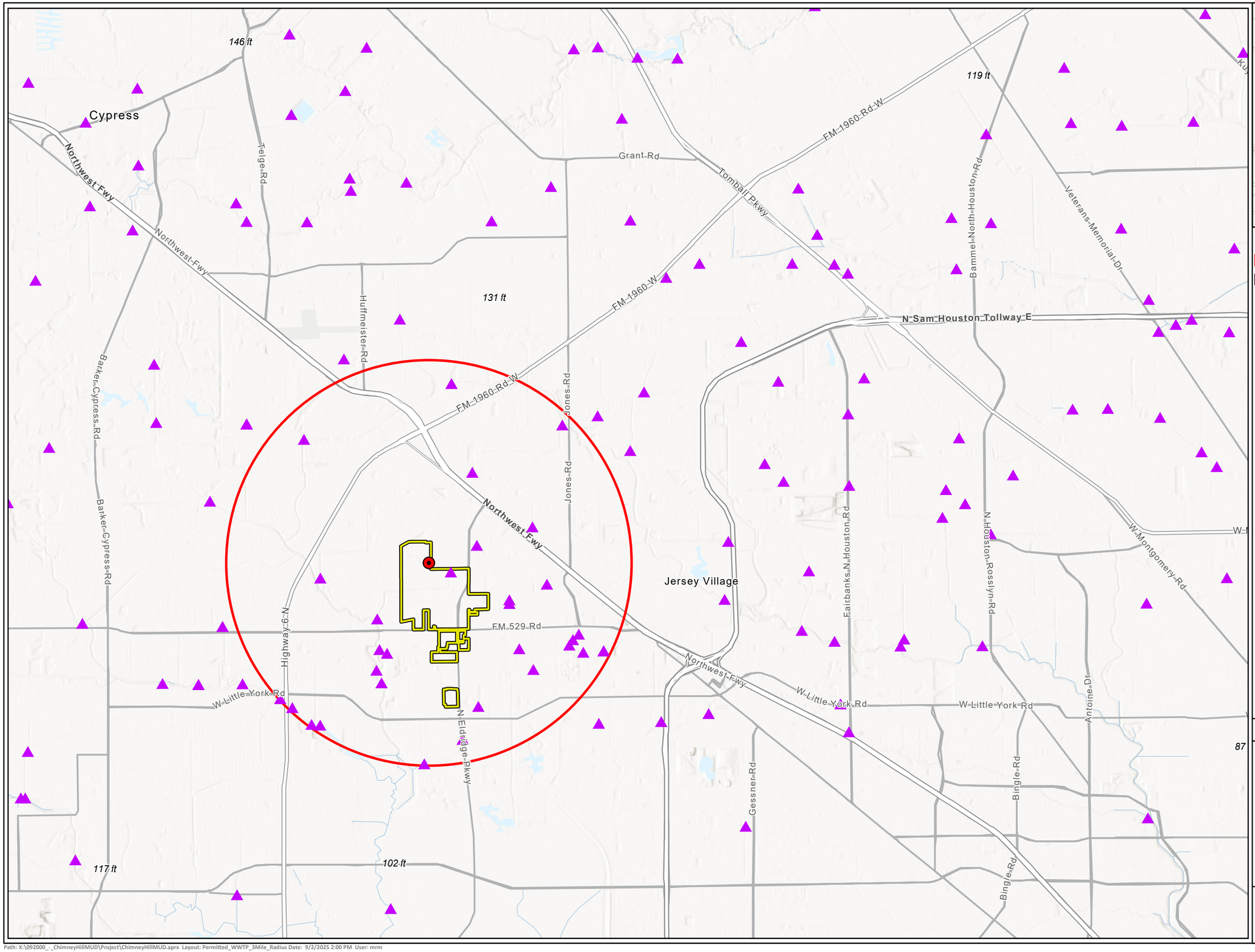
| Point | Year | Month | Day | Time | QC Data | Delta | Sigma | Warning | Action | Test ID | Analysis ID | Laboratory |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2023 | Apr | 26 | 10:40 | 396.9 | -66.23 | -0.5612 | | | 12-0729-0762 | 21-0390-2249 | NWDLS Environ. Toxicol. |
| 2 | | May | 4 | 13:00 | 389 | -74.13 | -0.6343 | | | 09-2877-5993 | 07-4033-4588 | NWDLS Environ. Toxicol. |
| 3 | | Jun | 1 | 11:15 | 502.5 | 39.37 | 0.2967 | | | 05-2289-6791 | 11-5191-9568 | NWDLS Environ. Toxicol. |
| 4 | | Jul | 5 | 11:15 | 488.1 | 24.94 | 0.1907 | | | 07-7481-7599 | 19-6955-9006 | NWDLS Environ. Toxicol. |
| 5 | | Aug | 3 | 10:20 | 203.1 | -260.1 | -2.998 | (-) | (-) | 12-8694-7019 | 13-8919-7389 | NWDLS Environ. Toxicol. |
| 6 | | | 9 | 13:30 | 350.8 | -112.3 | -1.01 | (-) | | 05-7717-0596 | 03-1379-9928 | NWDLS Environ. Toxicol. |
| 7 | | Sep | 6 | 11:35 | 571.1 | 108 | 0.762 | | | 21-4265-1862 | 09-1768-7769 | NWDLS Environ. Toxicol. |
| 8 | | Oct | 3 | 11:20 | 407.8 | -55.3 | -0.4624 | | | 14-4865-2899 | 03-7124-5491 | NWDLS Environ. Toxicol. |
| 9 | | Nov | 15 | 10:35 | 429.3 | -33.84 | -0.2759 | | | 14-8158-8479 | 21-0962-8076 | NWDLS Environ. Toxicol. |
| 10 | | Dec | 1 | 9:45 | 453.8 | -9.367 | -0.0743 | | | 13-4829-3902 | 04-5678-6233 | NWDLS Environ. Toxicol. |
| 11 | 2024 | Jan | 2 | 13:50 | 579.6 | 116.5 | 0.8158 | | | 12-9423-8910 | 12-4413-9077 | NWDLS Environ. Toxicol. |
| 12 | | Feb | 7 | 13:15 | 430.9 | -32.27 | -0.2626 | | | 17-5918-4926 | 11-1398-9198 | NWDLS Environ. Toxicol. |
| 13 | | Mar | 14 | 15:18 | 536.7 | 73.61 | 0.5364 | | | 01-0010-5331 | 08-2433-4131 | NWDLS Environ. Toxicol. |
| 14 | | Apr | 3 | 15:25 | 403.4 | -59.75 | -0.5023 | | | 05-7679-6947 | 14-1667-5254 | NWDLS Environ. Toxicol. |
| 15 | | May | 2 | 10:45 | 412.3 | -50.79 | -0.4224 | | | 16-8782-0175 | 07-9000-8378 | NWDLS Environ. Toxicol. |
| 16 | | Jun | 6 | 13:40 | 707.5 | 244.4 | 1.541 | (+) | | 19-5385-9060 | 16-2631-3412 | NWDLS Environ. Toxicol. |
| 17 | | | 12 | 14:26 | 482.9 | 19.77 | 0.152 | | | 13-7561-6336 | 06-1458-6011 | NWDLS Environ. Toxicol. |
| 18 | | Jul | 1 | 14:45 | 583.8 | 120.7 | 0.8421 | | | 19-8309-1944 | 16-0966-0460 | NWDLS Environ. Toxicol. |
| 19 | | Aug | 1 | 12:45 | 537 | 73.87 | 0.5381 | | | 13-9977-3902 | 09-4481-8344 | NWDLS Environ. Toxicol. |
| 20 | | Sep | 13 | 14:46 | 711.1 | 247.9 | 1.559 | (+) | | 00-4821-9514 | 16-7674-8846 | NWDLS Environ. Toxicol. |
| 21 | | Oct | 2 | 10:30 | 619.5 | 156.3 | 1.058 | (+) | | 04-6751-0841 | 18-7980-0976 | NWDLS Environ. Toxicol. |

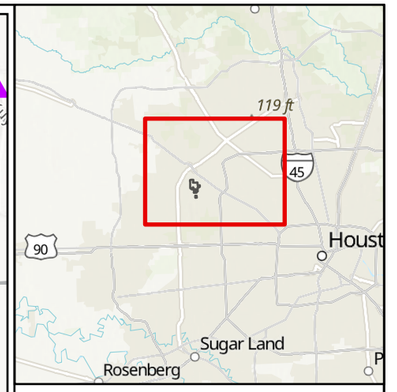
Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

# EXHIBIT 22

## REGIONALIZATION MAP

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**




- Proposed WWTP
- 3 Mile Buffer
- District Boundary
- TCEQ Permitted Wastewater Outfalls

1 inch equals 7,000 feet

N W E S

0 7,000 14,000

CHIMNEY HILL M.U.D.

# PERMITTED WASTEWATER TREATMENT PLANTS 3-MILE BUFFER

A&S Engineers, Inc.

Path: X:\092000_-_ChimneyHillMUD\Project\ChimneyHillMUD.aprx Layout: Permitted_WWTP_3Mile_Radius Date: 9/2/2025 2:00 PM User: mrm

Chimney Hill Municipal Utility District
TPDES Permit No. WQ0012304-001
NPDES Permit No. TX 0085588
A&S Project No. 092008.06

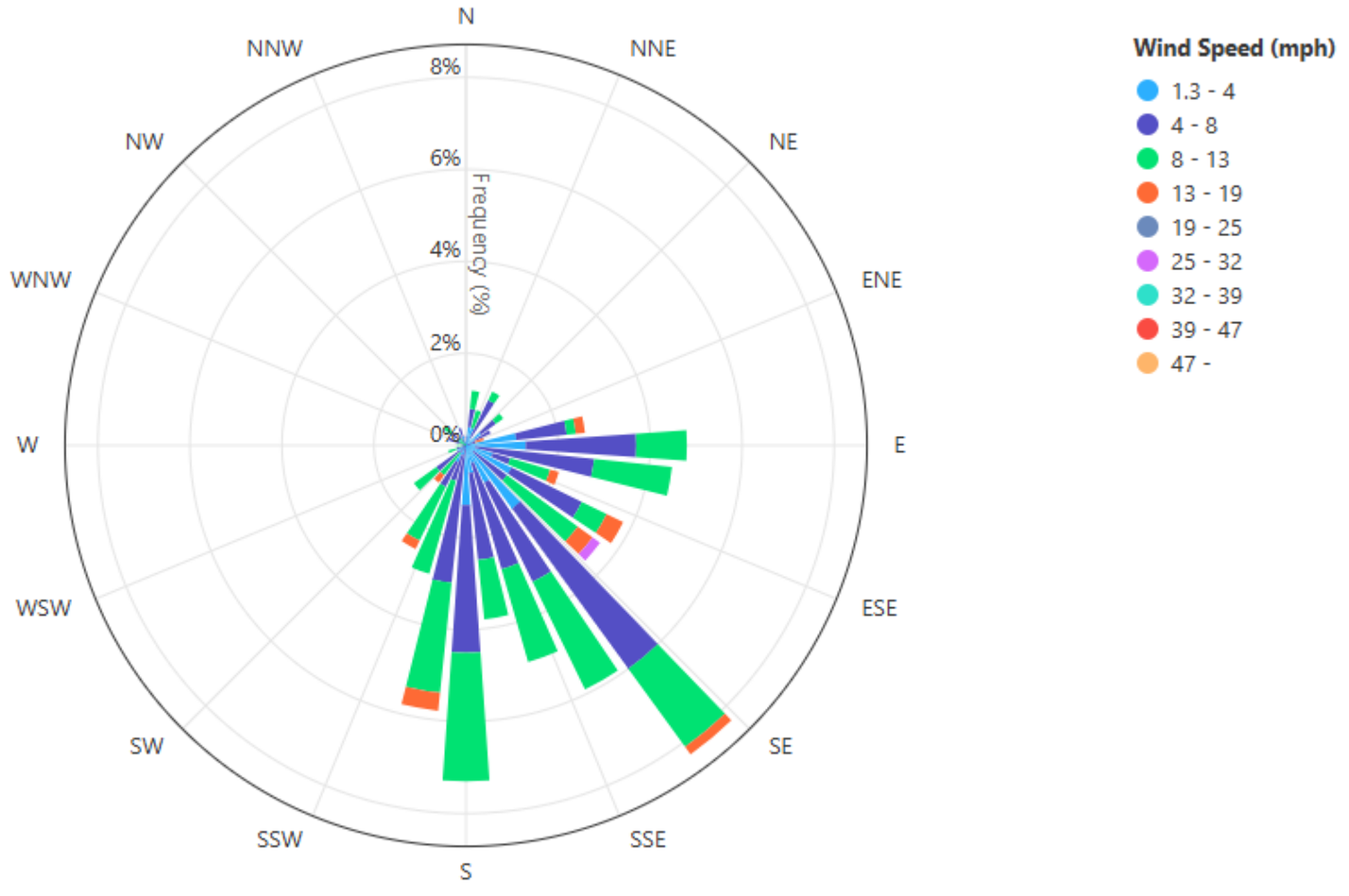
# EXHIBIT 23

## WIND ROSE

**10377 Stella Link Road, Houston, TX 77025**
**Ph: 713-942-2700 Fax: 713-942-2799**
**Texas Engineering Registration No. F-000802**

# HOUSTON HOOKS MEMORIAL AP (TX) Wind Rose

June 01, 2025 - June 27, 2025
Sub-Interval: January 1 - December 31, 0 - 24




**HOUSTON HOOKS MEMORIAL AP (TX)- Wind Frequency Table (percentage)**

Latitude : 30.0680
Longitude : -95.5563
Elevation : 153 ft.
Element : Mean Wind Speed

Start Date : June 01, 2025
End Date : June 27, 2025
# of Days : 27 of 27
# obs : poss : 520 of 648

Sub Interval Windows

| | Start | End |
|---|---|---|
| Date | January 1 | December 31 |
| Hour | 0 | 24 |

## Candice Calhoun

**From:** Anna M. Hunter <amh@as-engineers.com>
**Sent:** Tuesday, October 14, 2025 8:41 AM
**To:** Candice Calhoun
**Cc:** William Yale; Justin Edwards; David Green; Jonathan D. Liu
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency
**Attachments:** Add'l $50 check.pdf; Exhibit 16 - Public Involvement Plan Form.pdf; Exhibit 18 - Landowner's Mailing List.docx; Exhibit 18 - Landowner's Map List (revised 10-14-2025).pdf; Exhibit 18 - Landowner's Map (revised 10-14-2025).pdf; Municipal Discharge Amendment Spanish NORI.docx

Good morning,

We received the Notice of Deficiency Letter from TCEQ and revised the attached documents. Below is a summary of revisions per each comment. Please let me know if you have any questions or need any further revisions.

1. The additional application fee of $50 was mailed to TCEQ MC 214. Attached is a copy of the check and LOT.
2. The physical address on the Core Data Form is correct. The WWTP address is 13450 Traders Village Drive, Houston, TX 77041. Unfortunately, this is the same address as the Traders Village Houston, but also the official address of the WWTP.
3. Public Involvement Plan section 2 is completed. Please see attached revised Exhibit 16 – Public Involvement Plan Form.
4. Affected Landowner map, mailing list, and map list were revised. Please see attached.
5. Please see below changes to the English NORIA in red.
6. Please see attached Spanish NORI with noted changes.

***APPLICATION***. *Chimney Hill Municipal Utility District, 9 Greenway Plaza, Suite 1000, Houston, Texas 77046, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0012304001 (EPA I.D. No. TX0085588) to authorize the modification of the Total Copper Limit in the final effluent limitations. The domestic wastewater treatment facility is located at 13450 Traders Village Drive, Houston, TX 77041, in Harris County, Texas 77041. The discharge route is from the plant site to a Harris County Flood Contril District ditch; thence to Horsepen Creek; thence to Langham Creek; thence to Bear Creek; thence to South Mayde Creek; thence to Buffalo Bayou Above Tidal (PENDING RWA REVIEW). TCEQ received this application on October 7, 2025. The permit application will be available for viewing and copying at Fairbanks Public Library, 7122 Gessner Road, 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=-95.614444,29.891944&level=18*

*Further information may also be obtained from Chimney Hill Municipal Utility District at the address stated above or by calling Mr. William D. Yale III, Attorney for the District, Coats Rose, P.C., at 713-651-0111.*

Thank you,

**Anna Hunter, P.E.**
**Project Coordinator**
A&S Engineers, Inc.
**A&S Engineers, Inc.**
10377 Stella Link Road
Houston, TX 77025-5445
O: (713) 942-2700
amh@as-engineers.com
www.as-engineers.com

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**From:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
**Sent:** Thursday, October 9, 2025 2:59:59 PM
**To:** William Yale <wyale@coatsrose.com>
**Cc:** jdl@as-engineers.com <jdl@as-engineers.com>
**Subject:** Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency

Good afternoon, Mr. William III,

The attached Notice of Deficiency (NOD) letter dated October 9, 2025, requests additional information needed to declare the application administratively complete. Please send complete response no later than October 23, 2025.

If you have any questions, please let me know.

Regards,

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

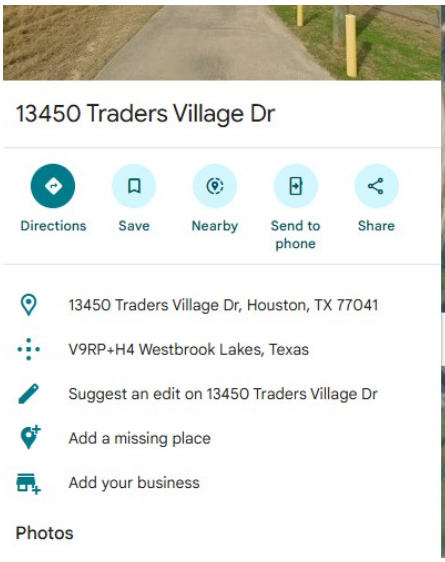
This e-mail and/or attachment is for the sole use of the intended recipient(s) and may contain confidential and/or legally privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

## Candice Calhoun

**From:** Anna M. Hunter <amh@as-engineers.com>
**Sent:** Thursday, October 16, 2025 1:15 PM
**To:** Candice Calhoun
**Cc:** William Yale; Justin Edwards; David Green; Jonathan D. Liu
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency
**Attachments:** Exhibit 16 - Public Involvement Plan Form.pdf

Good afternoon Candice,

2. The coordinates and address are correct. Google maps has the correct address. HCAD has our WWTP as a "0" address for some reason.






3. I apologize, I thought I sent the correct PIP form. Please see attached.

4. I removed the pink highlighted tract from the Landowner map since this area is also owned by the District. It's the retention pond for the neighborhood but doesn't have anything to do with the WWTP so we didn't hatch it.

Thank you for working with me on this! If you have any questions or any comments, please feel free to contact me at 713-942-2764 (direct line).

Thank you,

**Anna Hunter, P.E.**
**Project Coordinator**
A&S Engineers, Inc.
**A&S Engineers, Inc.**
10377 Stella Link Road
Houston, TX 77025-5445
O: (713) 942-2700

amh@as-engineers.com
www.as-engineers.com

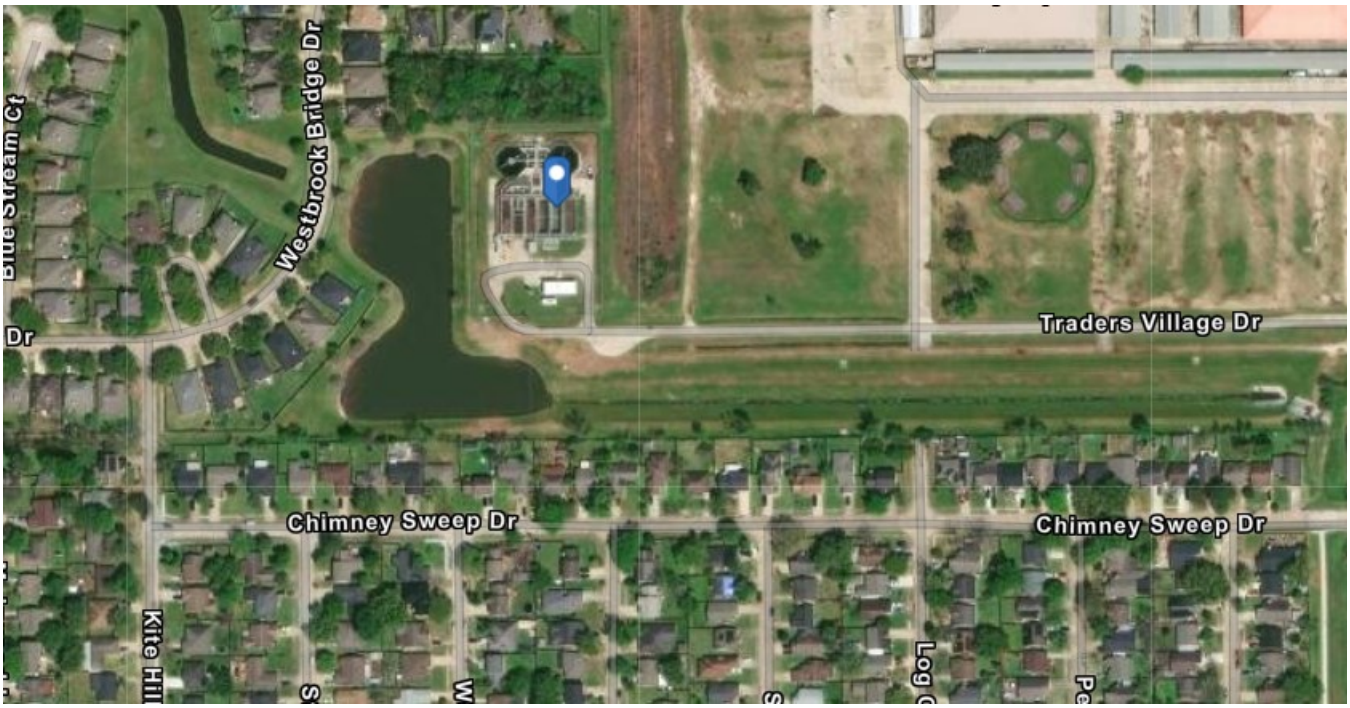
**From:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
**Sent:** Wednesday, October 15, 2025 9:03 AM
**To:** Anna M. Hunter <amh@as-engineers.com>
**Cc:** William Yale <wyale@coatsrose.com>; Justin Edwards <jhe@as-engineers.com>; David Green <dgreen@coatsrose.com>; Jonathan D. Liu <jdl@as-engineers.com>
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency

Good morning, Anna,

Thank you for your response. Please see my comments below.

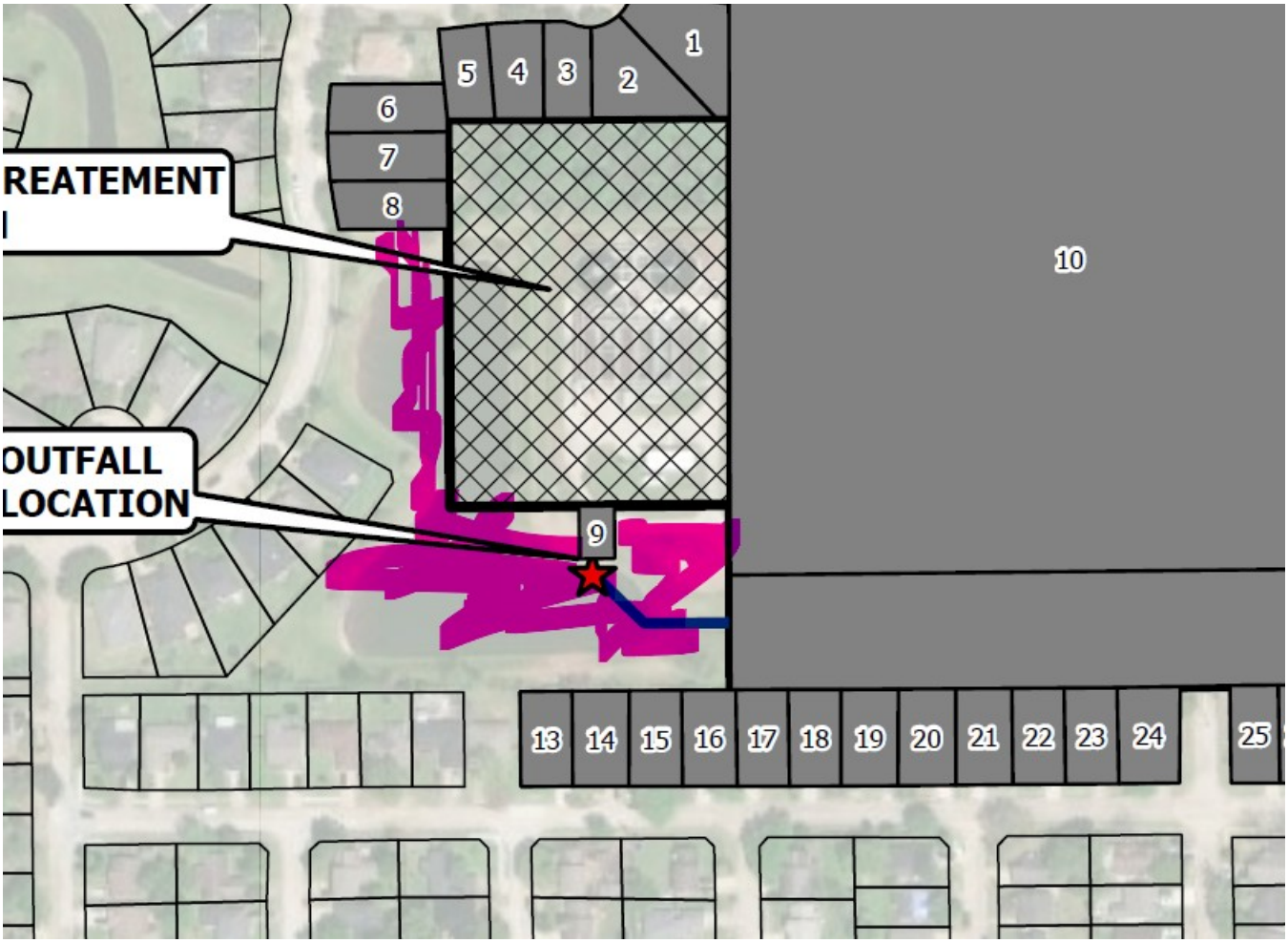
1. Thank you, I do not see that we have received the check yet, but I will keep an eye out.

2. Since you have confirmed that the address is correct, can you please confirm the site coordinates? This is where we show the site coordinates vs the address provided.




3. PIP – since the top three boxes were checked, the rest of the PIP should completed.

4. The landowners in the highlighted area are missing. The affected landowners surrounding the applicant's boundary must be provided.




5. Due to the requested changes, an updated CDF, to show the correct suite number. Below is the requested changes.

**APPLICATION.** Chimney Hill Municipal Utility District, 9 Greenway Plaza, Suite 1100, Houston, Texas 77046, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0012304001 (EPA I.D. No. TX0085588) to authorize the modification of the Total Copper Limit in the final effluent limitations. The domestic wastewater treatment facility is located at 13450 Traders Village Drive, in Harris County, Texas 77041. The discharge route is from the plant site to a Harris County Flood Contril District ditch; thence to Horsepen Creek; thence to Langham Creek; thence to Bear Creek; thence to South Mayde Creek; thence to Buffalo Bayou Above Tidal. TCEQ received this application on October 7, 2025. The permit application will be available for viewing and copying at Fairbanks Public Library, 7122 Gessner Road, 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=-95.614444,29.891944&level=18

Further information may also be obtained from Chimney Hill Municipal Utility District at the address stated above or by calling Mr. William D. Yale III, Attorney for the District, Coats Rose, P.C., at 713-651-0111.

6. This response is sufficient.

If you have any additional questions, please let me know.

Regards,

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

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**From:** Anna M. Hunter <amh@as-engineers.com>
**Sent:** Tuesday, October 14, 2025 8:41 AM
**To:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
**Cc:** William Yale <wyale@coatsrose.com>; Justin Edwards <jhe@as-engineers.com>; David Green <dgreen@coatsrose.com>; Jonathan D. Liu <jdl@as-engineers.com>
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency

Good morning,

We received the Notice of Deficiency Letter from TCEQ and revised the attached documents. Below is a summary of revisions per each comment. Please let me know if you have any questions or need any further revisions.

1. The additional application fee of $50 was mailed to TCEQ MC 214. Attached is a copy of the check and LOT.
2. The physical address on the Core Data Form is correct. The WWTP address is 13450 Traders Village Drive, Houston, TX 77041. Unfortunately, this is the same address as the Traders Village Houston, but also the official address of the WWTP.
3. Public Involvement Plan section 2 is completed. Please see attached revised Exhibit 16 – Public Involvement Plan Form.
4. Affected Landowner map, mailing list, and map list were revised. Please see attached.
5. Please see below changes to the English NORIA in red.

## Candice Calhoun

**From:** Anna M. Hunter <amh@as-engineers.com>
**Sent:** Friday, October 17, 2025 1:57 PM
**To:** Candice Calhoun
**Cc:** William Yale; Justin Edwards; David Green; Jonathan D. Liu
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency
**Attachments:** Exhibit 14 - Core Data Form (revised 10-17-2025).pdf; Exhibit 18 - Landowner's Map (revised 10-17-2025).pdf

Candice,

Will this Landowner map suffice?

Thank you,

**Anna Hunter, P.E.**
**Project Coordinator**
A&S Engineers, Inc.
**A&S Engineers, Inc.**
10377 Stella Link Road
Houston, TX 77025-5445
O: (713) 942-2700
amh@as-engineers.com
www.as-engineers.com

---

**From:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
**Sent:** Friday, October 17, 2025 11:39 AM
**To:** Anna M. Hunter <amh@as-engineers.com>
**Cc:** William Yale <wyale@coatsrose.com>; Justin Edwards <jhe@as-engineers.com>; David Green <dgreen@coatsrose.com>; Jonathan D. Liu <jdl@as-engineers.com>
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency

Anna,

Thank you for the updated PIP. As for the landowner map, since that area is owned by the applicant, it needs to be delineated and labeled. All contiguous properties owned by the applicant should be shown and labeled as well as all affected landowners adjacent to the applicant's contiguous property boundaries.

In addition, the revised CDF is also still needed to correct the suite number listed in the mailing address. Other than the items listed in this email, everything else I have received is sufficient

Regards,

Candice Courville
License & Permit Specialist
ARP Team | Water Quality Division
Texas Commission on Environmental Quality
512-239-4312
candice.calhoun@tceq.texas.gov

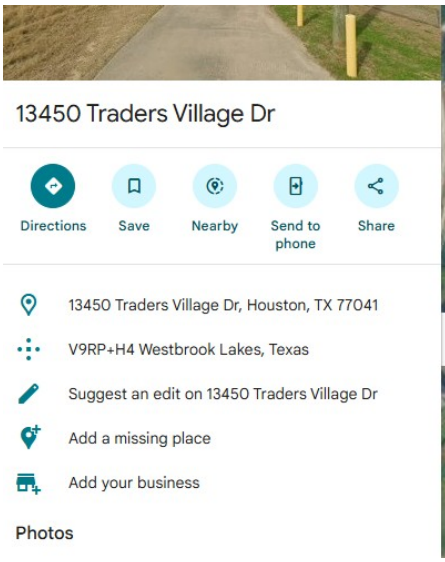
How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

---

**From:** Anna M. Hunter <amh@as-engineers.com>
**Sent:** Thursday, October 16, 2025 1:15 PM
**To:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
**Cc:** William Yale <wyale@coatsrose.com>; Justin Edwards <jhe@as-engineers.com>; David Green <dgreen@coatsrose.com>; Jonathan D. Liu <jdl@as-engineers.com>
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency

Good afternoon Candice,

2. The coordinates and address are correct. Google maps has the correct address. HCAD has our WWTP as a "0" address for some reason.






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4. I removed the pink highlighted tract from the Landowner map since this area is also owned by the District. It's the retention pond for the neighborhood but doesn't have anything to do with the WWTP so we didn't hatch it.

Thank you for working with me on this! If you have any questions or any comments, please feel free to contact me at 713-942-2764 (direct line).

## Candice Calhoun

**From:** Anna M. Hunter <amh@as-engineers.com>
**Sent:** Tuesday, October 21, 2025 1:50 PM
**To:** Candice Calhoun
**Cc:** William Yale; Justin Edwards; David Green; Jonathan D. Liu
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency
**Attachments:** Exhibit 18 - Landowner's Map (revised 10-21-2025).pdf; Exhibit 18 - Landowner's Mailing List.docx; Exhibit 18 - Landowner's Map List (revised 10-21-2025).pdf

Good afternoon Candice,

Thanks for taking my call this morning! Please see attached updated documents.

Thank you,

**Anna Hunter, P.E.**
**Project Coordinator**
A&S Engineers, Inc.
**A&S Engineers, Inc.**
10377 Stella Link Road
Houston, TX 77025-5445
O: (713) 942-2700
amh@as-engineers.com
www.as-engineers.com

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**From:** Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
**Sent:** Monday, October 20, 2025 7:33 AM
**To:** Anna M. Hunter <amh@as-engineers.com>
**Cc:** William Yale <wyale@coatsrose.com>; Justin Edwards <jhe@as-engineers.com>; David Green <dgreen@coatsrose.com>; Jonathan D. Liu <jdl@as-engineers.com>
**Subject:** RE: Chimney Hill MUD / FW: Application to Amend Permit No. WQ0012304001 (Chimney Hill MUD) - Notice of Deficiency

Good morning, Anna,

Thank you for the updated CDF. As for the map, thank you for adding the applicant's contiguous property boundary. The affected landowners that surround that boundary. I have highlighted the portion as an example of what needs to be labeled. I do know that the parts I highlighted in purple aren't necessarily parcels and that will be fine. What is highlighted in pink should be listed on the map, list and labels.

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

| 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 601359292 | | RN 102834272 |

## 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:*

Chimney Hill Municipal Utility District

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

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

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

**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:**

c/o Coats Rose, P.C.
9 Greenway Plaza, Suite 1000

| City | State | ZIP | ZIP + 4 |
|---|---|---|---|
| Houston | TX | 77046 | |

| 16. Country Mailing Information *(if outside USA)* | 17. E-Mail Address *(if applicable)* |
|---|---|
| | wyale@coatsrose.com |

| 18. Telephone Number | 19. Extension or Code | 20. Fax Number *(if applicable)* |
|---|---|---|
| ( 713 ) 651-0111 | | ( 713 ) 942-9590 |

## 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.*)

Chimney Hill Municipal Utility District Wastewater Treatment Facility

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **23. Street Address of the Regulated Entity:** *(No PO Boxes)* | 13450 Traders Village Dr | | | | | | | |
| | **City** | Houston | **State** | TX | **ZIP** | 77041 | **ZIP + 4** | |
| **24. County** | Harris | | | | | | | |

**Enter Physical Location Description if no street address is provided.**

| | |
|---|---|
| **25. Description to Physical Location:** | |

| **26. Nearest City** | **State** | **Nearest ZIP Code** |
|---|---|---|
| Houston | TX | 77041 |

| **27. Latitude (N) In Decimal:** | 29.89101 | | **28. Longitude (W) In Decimal:** | -95.61022 | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 29 | 53 | 27.65 | -95 | 36 | 36.79 |

| **29. Primary SIC Code** (4 digits) | **30. Secondary SIC Code** (4 digits) | **31. Primary NAICS Code** (5 or 6 digits) | **32. Secondary NAICS Code** (5 or 6 digits) |
|---|---|---|---|
| 4952 | | 22132 | |

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

Serves to treat wastewater from Chimney Hill Municipal Utility District

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **34. Mailing Address:** | **c/o Coats Rose, P.C.** | | | | | | | |
| | **9 Greenway Plaza, Suite 1100** | | | | | | | |
| | **City** | **Houston** | **State** | **TX** | **ZIP** | **77046** | **ZIP + 4** | |

| **35. E-Mail Address:** | **wyale@coatsrose.com** |
|---|---|

| **36. Telephone Number** | **37. Extension or Code** | **38. Fax Number** *(if applicable)* |
|---|---|---|
| **( 713 ) 651-0111** | | **( ) -** |

**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 |
| | | | | |
| ☐ Voluntary Cleanup | ☒ Waste Water | ☐ Wastewater Agriculture | ☐ Water Rights | ☐ Other: |
| | WQ0012304-001 | | | |

## SECTION IV: Preparer Information

| **40. Name:** | Jonathan D. Liu, P.E. | **41. Title:** | Project Manager |
|---|---|---|---|

| **42. Telephone Number** | **43. Ext./Code** | **44. Fax Number** | **45. E-Mail Address** |
|---|---|---|---|
| ( 713 ) 942-2700 | | ( ) - | jdl@as-engineers.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:** | Chimney Hill Municipal Utility District | **Job Title:** | Board President |
|---|---|---|---|
| **Name** *(In Print):* | | **Phone:** | ( ) - |
| **Signature:** | | **Date:** | |

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.

## 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

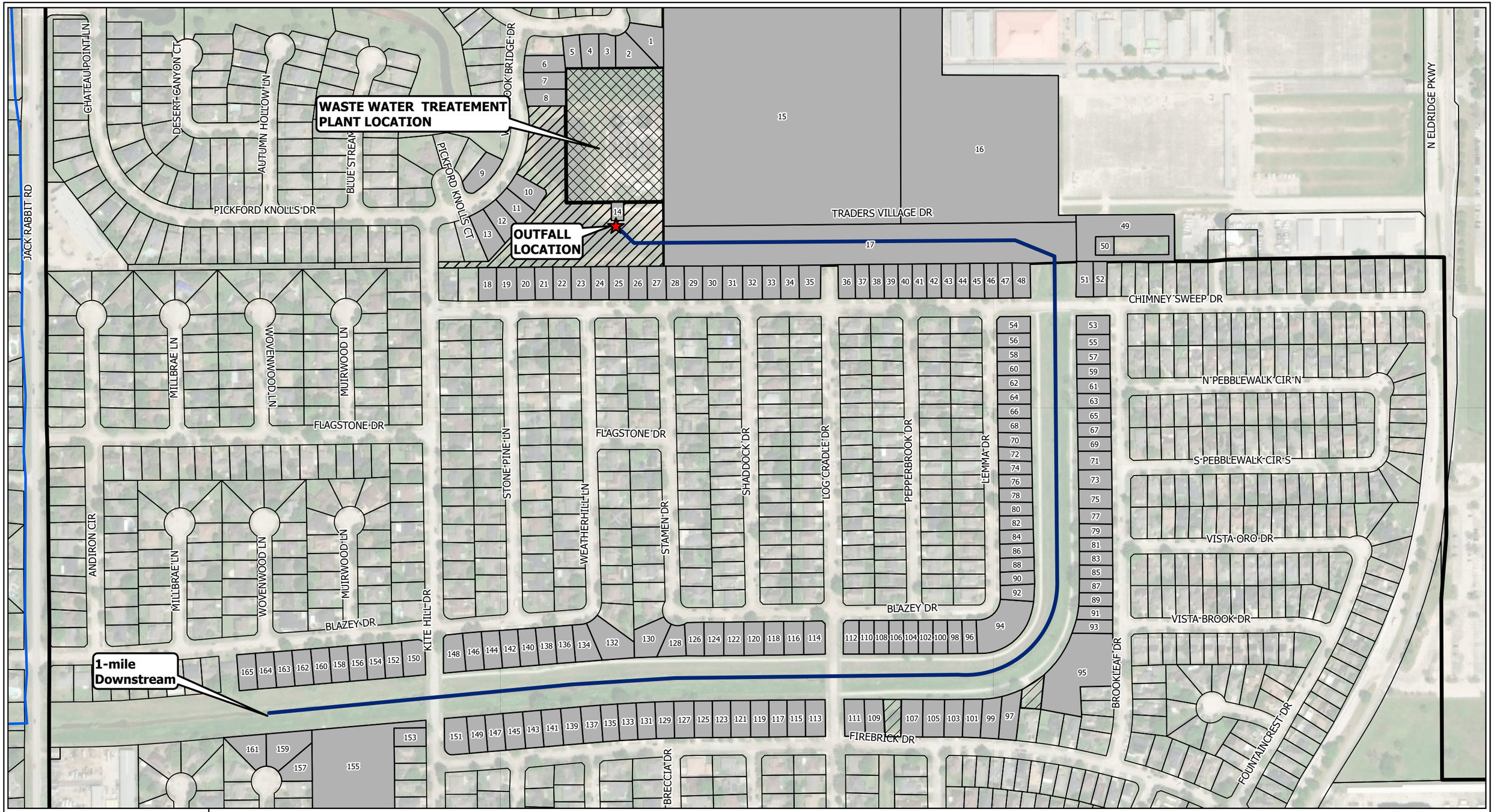
What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)




# CHIMNEY HILL M.U.D.

## AFFECTED LAND OWNERS MAP

- Service Area
- HCAD Parcels
- WWTP Site
- Outfall Location
- 1 Mile
- Rivers and Streams
- Affected Land Owners
- Owned By Chimney Hill MUD

A&S Engineers, Inc.

DRAWING NOT TO SCALE

N W E S

Path: X:\092000_-_ChimneyHillMUD\Project\ChimneyHillMUD.aprx Layout: Pg4_AffectedLandOwnersMap_1Mile_8.5x11 Date: 10/21/2025

| Tract ID | HCAD_NUM | OWNER | TRACT ADDRESS | TRACT CITY | TRACT ZIP | MAILING ADDRESS | MAILING CITY | MAILING STATE | MAILING ZIP |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1170020020002 | HARRIS COUNTY FLOOD CONTROL DISTRICT | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 9900 NORTHWEST FWY | HOUSTON | TX | 77092-8601 |
| 2 | 1170020010001 | T V H LAND CO LP | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 420 THROCKMORTON ST STE 710 | FORT WORTH | TX | 76102-3724 |
| 3 | 1110620000025 | CHIMNEY HILL C A INC | 14000 SMOKEY TRAIL DR | HOUSTON | 77041 | 15995 N BARKERS LANDING RD STE 162 | HOUSTON | TX | 77079-2471 |
| 4 | 1170020010003 | TVH LAND COMPANY LP | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 420 THROCKMORTON ST STE 710 | FORT WORTH | TX | 76102-3724 |
| 5 | 1152810010024 | CHIMNEY HILL IV V VI CIA | 7419 BROOKLEAF DR | HOUSTON | 77041 | 1400 BROADFIELD BLVD STE 600 | HOUSTON | TX | 77084-5133 |
| 6 | 1123810000014 | CHAVEZ MAURICIO & ISABEL | 13619 BLAZEY DR | HOUSTON | 77041 | 13619 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 7 | 1123800000013 | MARTINEZ MANUEL G | 13807 BLAZEY DR | HOUSTON | 77041 | 13807 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 8 | 1123800000020 | MENJIVAR ULISES T | 13703 BLAZEY DR | HOUSTON | 77041 | 13703 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 9 | 1123830000005 | PEREZ GLORIA | 13614 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13614 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1568 |
| 10 | 1231060040076 | MCNINCH KIMBERLY RAE | 0 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 9125 HIGHWAY 6 N STE 2325 | HOUSTON | TX | 77095-2359 |
| 11 | 1110620000013 | FAVELA NAOMI & GUSTAVO | 7418 WOVENWOOD LN | HOUSTON | 77041 | 14723 CHAPEL COVE CT | CYPRESS | TX | 77429-8095 |
| 12 | 1110690000010 | FERNANDEZ RAFAEL & ELIA | 13510 FIREBRICK DR | HOUSTON | 77041 | 13510 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 13 | 1149360040018 | CASTRO NORMA & | 13403 BLAZEY DR | HOUSTON | 77041 | 13403 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 14 | 1149360090023 | CANTU TAMMY | 13315 BLAZEY DR | HOUSTON | 77041 | 13315 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 15 | 1149360090008 | ESPARZA ARTURO S | 7606 LEMMA DR | HOUSTON | 77041 | 7606 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 16 | 1149360090015 | VACA JOSE C | 7526 LEMMA DR | HOUSTON | 77041 | 7522 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 17 | 1152810010021 | NINO JUAN CARLOS M | 13320 FIREBRICK DR | HOUSTON | 77041 | 13320 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 18 | 1152810010004 | MALONE MICHAEL | 7515 BROOKLEAF DR | HOUSTON | 77041 | 7515 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 19 | 1151170030002 | DAO PETER | 7527 BROOKLEAF DR | HOUSTON | 77041 | 7527 BROOKLEAF DR | HOUSTON | TX | 77041-1828 |
| 20 | 1151170030006 | MORALES JOSE J | 7615 BROOKLEAF DR | HOUSTON | 77041 | 7615 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 21 | 1149360020004 | GANZINOTTI ANDREA | 13414 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13414 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 22 | 1149360010004 | GARCIA ANTONIO & MARIA | 13326 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13326 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 23 | 1110690000015 | CHAVEZ JOSE S & ROSAURA G | 13422 FIREBRICK DR | HOUSTON | 77041 | 13422 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 24 | 1123800000012 | CASTILLO SALVADOR & SANJUANA | 13811 BLAZEY DR | HOUSTON | 77041 | 13811 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 25 | 1231060040067 | QUEST TRUST COMPANY | 13603 SHORT BROOK LN | HOUSTON | 77041 | 17171 PARK ROW STE 100 | HOUSTON | TX | 77084-4935 |
| 26 | 1149360090029 | VELASQUEZ PETRA D | 13339 BLAZEY DR | HOUSTON | 77041 | 13339 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 27 | 1149360090014 | RODRIGUEZ JOMAG M | 7530 LEMMA DR | HOUSTON | 77041 | 7530 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 28 | 1149360090016 | VACA JOSE C & ROSA M | 7522 LEMMA DR | HOUSTON | 77041 | 7522 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 29 | 1152810010007 | BRUNO FRANK J & JERI L | 7507 BROOKLEAF DR | HOUSTON | 77041 | 7507 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 30 | 1152810010005 | GRUPA LINDA KAY | 7513 BROOKLEAF DR | HOUSTON | 77041 | 7513 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 31 | 1152810010003 | NAVA MARIA L | 7517 BROOKLEAF DR | HOUSTON | 77041 | 7517 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 32 | 1149360020005 | ORTIZ ROQUE & LUCILA | 13418 CHIMNEY SWEEP DR | HOUSTON | 77041 | 19319 COLONY GROVE LN | KATY | TX | 77449-7497 |
| 33 | 1149360020003 | MARTINEZ RAUL D | 13410 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13410 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 34 | 1149360010013 | HERNANDEZ JUAN C & DELMY L | 13234 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13234 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1555 |
| 35 | 1123810000011 | CAMARGO CYNTHIA GUZMAN | 13607 BLAZEY DR | HOUSTON | 77041 | 13607 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 36 | 1123800000015 | REYNA JERRY & DIANA | 13723 BLAZEY DR | HOUSTON | 77041 | 13723 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 37 | 1123800000017 | SREY VANTHAN | 13715 BLAZEY DR | HOUSTON | 77041 | 13715 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 38 | 1123830000004 | REED ROWDY R | 13618 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13618 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1568 |
| 39 | 1231060040068 | POPOOLA OLADELE & OLAYINKA | 13607 SHORT BROOK LN | HOUSTON | 77041 | 13607 SHORT BROOK LN | HOUSTON | TX | 77041-1280 |
| 40 | 1231060040070 | TRAN HARRIS | 13615 SHORT BROOK LN | HOUSTON | 77041 | 13615 SHORT BROOK LN | HOUSTON | TX | 77041-1280 |
| 41 | 1110620000014 | LOPEZ JESUS | 7414 WOVENWOOD LN | HOUSTON | 77041 | 7414 WOVENWOOD LN | HOUSTON | TX | 77041-1625 |
| 42 | 1110620000012 | HILL BRITTANY D | 7419 WOVENWOOD LN | HOUSTON | 77041 | 5010 POPLAR GROVE DR | CHARLOTTE | NC | 28269-0405 |
| 43 | 1110690000013 | ESTRADA JORGE R | 13430 FIREBRICK DR | HOUSTON | 77041 | 13430 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 44 | 1149360090028 | SALGADO MARIA F | 13335 BLAZEY DR | HOUSTON | 77041 | 13335 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 45 | 1149360090026 | ALAMILLO MYRIAM | 13327 BLAZEY DR | HOUSTON | 77041 | 13327 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 46 | 1149360090024 | ARCOS YENI M | 13319 BLAZEY DR | HOUSTON | 77041 | 13319 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 47 | 1149360090009 | RODRIGUEZ MICHELLE | 7602 LEMMA DR | HOUSTON | 77041 | 7602 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 48 | 1149360090011 | GONZALEZ JOSE GUADALUPE VEGA | 7542 LEMMA DR | HOUSTON | 77041 | 7542 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 49 | 1152810010008 | SALGADO JUAN U | 7503 BROOKLEAF DR | HOUSTON | 77041 | 13146 PEBBLEWALK CIR NORTH | HOUSTON | TX | 77041-1823 |
| 50 | 1149360020002 | GONZALES ANGEL EUGENIO VILLATORO | 13406 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13406 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 51 | 1149360010002 | ROMERO LUIS A | 13334 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13334 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 52 | 1170020020001 | TVH LAND COMPANY LP | 7979 TRADERS VILLAGE DR | HOUSTON | 77041 | 420 THROCKMORTON ST STE 710 | FORT WORTH | TX | 76102-3724 |
| 53 | 1123810000010 | CARRIZALES MARCO ANTONIO MADRIGAL | 13603 BLAZEY DR | HOUSTON | 77041 | 13603 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 54 | 1123810000012 | SALGADO LEONEL | 13611 BLAZEY DR | HOUSTON | 77041 | 7914 SWAN HOLLOW CT | HOUSTON | TX | 77041-1255 |
| 55 | 1123800000014 | LOGAN GEORGE A JR | 13803 BLAZEY DR | HOUSTON | 77041 | 13803 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 56 | 1123800000016 | GUTIERREZ CARLOS & MARIA S | 13719 BLAZEY DR | HOUSTON | 77041 | 13719 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 57 | 1123830000003 | CHAVARRIA MARIA G | 13622 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13622 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1568 |
| 58 | 1231060040069 | ALSOULIMAN ABEER | 13611 SHORT BROOK LN | HOUSTON | 77041 | 13618 BIRCH CANYON CT | HOUSTON | TX | 77041-1264 |
| 59 | 1110690000012 | RIVERA RUBEN E | 13502 FIREBRICK DR | HOUSTON | 77041 | 13502 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 60 | 1149360040010 | DELEON MANUEL | 7503 STAMEN DR | HOUSTON | 77041 | 7503 STAMEN DR | HOUSTON | TX | 77041-1537 |
| 61 | 1149360090027 | SAVORY REBECA E | 13339 LEMMA DR | HOUSTON | 77041 | 16902 KILWINNING DR | HOUSTON | TX | 77084-1842 |
| 62 | 1149360090025 | ALVAREZ MAXIMILIANO & REYNA | 13323 BLAZEY DR | HOUSTON | 77041 | 13323 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 63 | 1149360090010 | JONES CALE A | 7546 LEMMA DR | HOUSTON | 77041 | 7546 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 64 | 1149360090012 | HAMILTON REAL ESTATE INVESTMENTS LLC | 7538 LEMMA DR | HOUSTON | 77041 | 18002 BLUES POINT DR | CYPRESS | TX | 77429-7600 |
| 65 | 1152810010009 | VASQUEZ TOMASA M | 7427 BROOKLEAF DR | HOUSTON | 77041 | 7427 BROOKLEAF DR | HOUSTON | TX | 77041-1827 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 66 | 1149360020001 | SALAZAR ART & ORALIA | 13402 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13402 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 67 | 1149360010001 | VILLALON JUVENTINO | 13338 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13338 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 68 | 1152810010017 | NGO TAI VAN | 13312 FIREBRICK DR | HOUSTON | 77041 | 13312 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 69 | 1149360040011 | DOWDY MICHAEL W | 13431 BLAZEY DR | HOUSTON | 77041 | 13431 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 70 | 1123810000016 | DELATORRE IGNACIO & DANA | 13627 BLAZEY DR | HOUSTON | 77041 | 5714 ELDRIDGE GLEN DR | HOUSTON | TX | 77041-4295 |
| 71 | 1123800000011 | GARCIA FATIMA G | 13815 BLAZEY DR | HOUSTON | 77041 | 13815 BLAZEY DR | HOUSTON | TX | 77041-1504 |
| 72 | 1123800000018 | ORTEGA CESAR A | 13711 BLAZEY DR | HOUSTON | 77041 | 13711 BLAZEY DR | HOUSTON | TX | 77041-1506 |
| 73 | 1123830000007 | SANCHEZ ERNESTO | 13606 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13606 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1568 |
| 74 | 1231060040066 | YOUNGBLOOD WILLIAM | 7902 INGLE OAK DR | HOUSTON | 77041 | 7902 INGLE OAK DR | HOUSTON | TX | 77041-1273 |
| 75 | 1231060040073 | BACHAND MARK R | 7830 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7830 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1287 |
| 76 | 1110690000001 | GARCIA ERNESTO & MARIA G | 13626 FIREBRICK DR | HOUSTON | 77041 | 13626 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 77 | 1110690000008 | MOLINA CESAR E | 13518 FIREBRICK DR | HOUSTON | 77041 | 13518 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 78 | 1149360020009 | MARTINEZ BRIANNA | 13506 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13506 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 79 | 1149360040015 | MARADIAGA YEFRI L | 13415 BLAZEY DR | HOUSTON | 77041 | 13415 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 80 | 1149360090021 | MENDOZA MIGUEL | 13307 BLAZEY DR | HOUSTON | 77041 | 13307 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 81 | 1149360090006 | LARRAZABAL ELIZABETH | 7614 LEMMA DR | HOUSTON | 77041 | 1378 COUNTRY PLACE DR | HOUSTON | TX | 77079-3126 |
| 82 | 1149360090013 | DIAZ YUDY | 7534 LEMMA DR | HOUSTON | 77041 | 6610 JACKWOOD ST | HOUSTON | TX | 77074-7126 |
| 83 | 1149360090017 | MORALES JORGE | 7518 LEMMA DR | HOUSTON | 77041 | 7127 WILLOW BRIDGE CIR | HOUSTON | TX | 77095-3233 |
| 84 | 1152810010019 | GAZI EMRAN H | 13316 FIREBRICK DR | HOUSTON | 77041 | 15703 PARK CENTER WAY | HOUSTON | TX | 77059-4051 |
| 85 | 1152810010006 | WEBBER CARL & KATHERINE | 7511 BROOKLEAF DR | HOUSTON | 77041 | 205 S MAIN ST | PALMYRA | MO | 63461-1649 |
| 86 | 1151170030004 | FARLEY JOHN L | 7607 BROOKLEAF DR | HOUSTON | 77041 | 7607 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 87 | 1151170030007 | CISNEROS JUAN A | 7619 BROOKLEAF DR | HOUSTON | 77041 | 7619 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 88 | 1149360010006 | LINARES DULIO A | 13318 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13318 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 89 | 1151170010008 | GARCIA EMILIO & LORENA | 13224 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13224 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1552 |
| 90 | 1149360020006 | CET J PROPERTIES LLC | 13422 CHIMNEY SWEEP DR | HOUSTON | 77041 | 10823 EVERWOOD LN | HOUSTON | TX | 77024-5416 |
| 91 | 1123810000017 | SCHALIT TRACI J | 13631 BLAZEY DR | HOUSTON | 77041 | 13631 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 92 | 1123810000018 | HA HUONG NGUYET | 13635 BLAZEY DR | HOUSTON | 77041 | 13635 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 93 | 1231060010025 | TORRES FERNANDO | 7802 PICKFORD KNOLLS CT | HOUSTON | 77041 | 7802 PICKFORD KNOLLS CT | HOUSTON | TX | 77041-1274 |
| 94 | 1123830000009 | FRANKLIN KAREN | 13518 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13518 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 95 | 1149360020008 | VACA JOSE | 13502 CHIMNEY SWEEP DR | HOUSTON | 77041 | 7522 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 96 | 1231060050003 | TRAN JENNIE | 7802 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7802 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1283 |
| 97 | 1231060050004 | REYES ISMAEL JR | 13703 PICKFORD KNOLLS DR | HOUSTON | 77041 | 13703 PICKFORD KNOLLS DR | HOUSTON | TX | 77041-1286 |
| 98 | 1110690000003 | QUEST TRUST COMPANY | 13618 FIREBRICK DR | HOUSTON | 77041 | 17171 APRK ROW STE 100 | HOUSTON | TX | 77084- |
| 99 | 1110690000006 | HUNT CHARLES | 13606 FIREBRICK DR | HOUSTON | 77041 | 13606 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 100 | 1110690000007 | SERNA MARTIN | 13602 FIREBRICK DR | HOUSTON | 77041 | 13602 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 101 | 1149360040013 | PALOMARES ROLFI | 13423 BLAZEY DR | HOUSTON | 77041 | 13423 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 102 | 1149360090001 | CLARK IKE | 7634 LEMMA DR | HOUSTON | 77041 | 7634 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 103 | 1149360090004 | PFIRMAN RICHARD L | 7622 LEMMA DR | HOUSTON | 77041 | 2611 CYPRESS CREEK PKWY STE A102 | HOUSTON | TX | 77068-3730 |
| 104 | 1149360090018 | BALLARD REVOCABLE TRUST | 7514 LEMMA DR | HOUSTON | 77041 | 16506 DUNLEITH CIR | CYPRESS | TX | 77429-4832 |
| 105 | 1149360090019 | MILLIGAN RHONDA SUE | 7510 LEMMA DR | HOUSTON | 77041 | 7510 LEMMA DR | HOUSTON | TX | 77041-1548 |
| 106 | 1151170030010 | US SFE ASSET COMPANY 1 LLC | 7631 BROOKLEAF DR | HOUSTON | 77041 | 5001 PLAZA ON THE LK STE 200 | AUSTIN | TX | 78746-1053 |
| 107 | 1151170030009 | RAMIREZ JUANITA | 7627 BROOKLEAF DR | HOUSTON | 77041 | 7627 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 108 | 1110700000002 | BELLO PAULA SALVADOR | 13328 FIREBRICK DR | HOUSTON | 77041 | 13328 FIREBRICK DR | HOUSTON | TX | 77041-1865 |
| 109 | 1149360010007 | UMANZOR JOSE F | 13314 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13314 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 110 | 1149360010008 | BANUELOS ERIKA YAZMIN & ERIK | 13310 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13310 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 111 | 1149360010011 | TORRES MATILDA ESTATE OF | 13242 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13242 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1555 |
| 112 | 1170020020003 | PEACO PAMELA R | 0 TRADERS VILLAGE DR | HOUSTON | 77041 | 15119 HOWLAND ST | HOUSTON | TX | 77084-2031 |
| 113 | 1110690000018 | LOZANO JAVIER | 13410 FIREBRICK DR | HOUSTON | 77041 | 13410 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 114 | 1110690000019 | CRUZ HERDI | 13406 FIREBRICK DR | HOUSTON | 77041 | 13406 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 115 | 1123810000013 | DENARD FRED J | 13615 BLAZEY DR | HOUSTON | 77041 | 13615 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 116 | 1123810000015 | CRUZ BARTOLO & HERIBERTA | 13623 BLAZEY DR | HOUSTON | 77041 | 13623 BLAZEY DR | HOUSTON | TX | 77041-1575 |
| 117 | 1123800000019 | ADDICKS GLYNNDA | 13707 BLAZEY DR | HOUSTON | 77041 | 2402 QUAIL VALLEY EAST DR | MISSOURI CITY | TX | 77459-3330 |
| 118 | 1123830000006 | KAUR RAJINDER | 13610 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13610 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1568 |
| 119 | 1149360020010 | HERRERA JOHN J IV | 13510 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13510 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 120 | 1231060040072 | LEE TIN | 7834 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7834 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1287 |
| 121 | 1231060040074 | SUH JUNG K | 7826 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7826 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1287 |
| 122 | 1231060050001 | CURRENT OWNER | 7810 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7810 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1283 |
| 123 | 1110620000023 | GUTIERREZ MARIA E | 7443 KITE HILL DR | HOUSTON | 77041 | 7443 KITE HILL DR | HOUSTON | TX | 77041-1605 |
| 124 | 1110690000002 | EICHELBERGER GEORGE W JR | 13622 FIREBRICK DR | HOUSTON | 77041 | 13622 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 125 | 1110690000009 | CAMPOS ALFONSO | 13514 FIREBRICK DR | HOUSTON | 77041 | 13514 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 126 | 1110690000011 | CUSTODIO ENRIQUE & LETICIA | 13506 FIREBRICK DR | HOUSTON | 77041 | 13506 FIREBRICK DR | HOUSTON | TX | 77041-1715 |
| 127 | 1149360040017 | MARTINEZ OMAR & LORENA | 13407 BLAZEY DR | HOUSTON | 77041 | 13407 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 128 | 1149360040016 | MCKEE WILLIAM R & CAROLINE | 13411 BLAZEY DR | HOUSTON | 77041 | 13411 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 129 | 1149360040014 | BARRERA ERASMO | 13419 BLAZEY DR | HOUSTON | 77041 | 13419 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 130 | 1149360090022 | VILTRES ALEXANDER | 13311 BLAZEY DR | HOUSTON | 77041 | 13311 BLAZEY DR | HOUSTON | TX | 77041-1563 |
| 131 | 1149360090031 | CHIMNEY HILL COMMUNITY ASSOCIATION INC | 0 BLAZEY DR | HOUSTON | 77041 | 15995 N BARKERS LANDING RD STE 162 | HOUSTON | TX | 77079-2471 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 132 | 1149360090005 | MIRELES DAVID | 7618 LEMMA DR | HOUSTON | 77041 | 7618 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 133 | 1149360090007 | KUSKO DAVID J & REBECCA & | 7610 LEMMA DR | HOUSTON | 77041 | 18303 W LITTLE YORK RD | KATY | TX | 77449-5761 |
| 134 | 1152810010020 | ROBLES DARIO | 13318 FIREBRICK DR | HOUSTON | 77041 | 13318 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 135 | 1152810010018 | MUNOZ ELIAS & YOLANDA | 13314 FIREBRICK DR | HOUSTON | 77041 | 13314 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 136 | 1151170030003 | BROCKETT CHRISTOPHER | 7603 BROOKLEAF DR | HOUSTON | 77041 | 7603 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 137 | 1151170030005 | SALGADO GUADALUPE | 7611 BROOKLEAF DR | HOUSTON | 77041 | 7611 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 138 | 1151170030008 | PULDO FELICIANO | 7623 BROOKLEAF DR | HOUSTON | 77041 | 7623 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 139 | 1149360010003 | ISLA HOMES LLC | 13330 CHIMNEY SWEEP DR | HOUSTON | 77041 | 1210 MARCONI ST | HOUSTON | TX | 77019-4210 |
| 140 | 1149360010005 | P & P GREEN TREE ENTERPRISES LLC | 13322 CHIMNEY SWEEP DR | HOUSTON | 77041 | 8411 MOSSHANG CT | HOUSTON | TX | 77040-1553 |
| 141 | 1149360010012 | RAMIREZ LORENZO | 13238 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13238 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1555 |
| 142 | 1151170010009 | ALROUSAN QASSEM WAEL | 13226 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13226 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1552 |
| 143 | 1110690000014 | HERRERA GENARO & OFELIA | 13426 FIREBRICK DR | HOUSTON | 77041 | 13426 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 144 | 1110690000016 | MAI TAI NOODLE HOUSE & GRILLS LLC | 13418 FIREBRICK DR | HOUSTON | 77041 | 9344 JONES RD STE O | HOUSTON | TX | 77065-5361 |
| 145 | 1123830000010 | BLANCO MARIA T ESTATE OF | 13514 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13514 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1558 |
| 146 | 1149360020007 | PERALTA RAFAEL M | 13426 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13426 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1556 |
| 147 | 1231060050002 | BRANCH REGINALD W | 7806 WESTBROOK BRIDGE DR | HOUSTON | 77041 | 7806 WESTBROOK BRIDGE DR | HOUSTON | TX | 77041-1283 |
| 148 | 1110690000004 | MATA PRESCILIANO | 13614 FIREBRICK DR | HOUSTON | 77041 | 13614 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 149 | 1110690000005 | LOPEZ CLARO G & LAURA J | 13610 FIREBRICK DR | HOUSTON | 77041 | 13610 FIREBRICK DR | HOUSTON | TX | 77041-1717 |
| 150 | 1149360040012 | AYRES NANCY | 13427 BLAZEY DR | HOUSTON | 77041 | 13427 BLAZEY DR | HOUSTON | TX | 77041-1565 |
| 151 | 1149360090002 | NOYOLA MARISELA | 7630 LEMMA DR | HOUSTON | 77041 | 7630 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 152 | 1149360090003 | LANDAVERDE JULIO | 7626 LEMMA DR | HOUSTON | 77041 | 7626 LEMMA DR | HOUSTON | TX | 77041-1550 |
| 153 | 1149360090020 | SINGH LAL & PARAMJEET | 7506 LEMMA DR | HOUSTON | 77041 | 14715 ENGLEBROOK DR | HOUSTON | TX | 77095-3058 |
| 154 | 1152810010022 | OCAMPO MIGUEL & ELVIA | 13322 FIREBRICK DR | HOUSTON | 77041 | 13322 FIREBRICK DR | HOUSTON | TX | 77041-1864 |
| 155 | 1152810010002 | CAMCHO ISMAEL BANDA | 7519 BROOKLEAF DR | HOUSTON | 77041 | 7519 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 156 | 1152810010001 | LOPEZ MIGUEL V & MARIA F | 7521 BROOKLEAF DR | HOUSTON | 77041 | 7521 BROOKLEAF DR | HOUSTON | TX | 77041-1848 |
| 157 | 1151170030001 | OJEDA BLANCA | 7523 BROOKLEAF DR | HOUSTON | 77041 | 7523 BROOKLEAF DR | HOUSTON | TX | 77041-1828 |
| 158 | 1151170030012 | JANDRES BERNARDINA | 7639 BROOKLEAF DR | HOUSTON | 77041 | 7639 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 159 | 1151170030011 | NOYOLA SAUL & MARTA M | 7635 BROOKLEAF DR | HOUSTON | 77041 | 7635 BROOKLEAF DR | HOUSTON | TX | 77041-1830 |
| 160 | 1110700000001 | GALINDO VICTOR | 13330 FIREBRICK DR | HOUSTON | 77041 | 13330 FIREBRICK DR | HOUSTON | TX | 77041-1865 |
| 161 | 1149360010009 | CHOTO ANA | 13306 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13306 CHIMNEY SWEEP DR | HOUSTON | TX | 77041-1554 |
| 162 | 1149360010010 | DIAZ JEORGE | 13302 CHIMNEY SWEEP DR | HOUSTON | 77041 | 5018 SCHULER ST | HOUSTON | TX | 77007-3352 |
| 163 | 1110690000017 | SFR JV 1 2019 1 BORROWER LLC | 13414 FIREBRICK DR | HOUSTON | 77041 | 1508 BROOKHOLLOW DR | SANTA ANA | CA | 92705-5426 |
| 164 | 1110690000020 | PEREZ MARIA | 13402 FIREBRICK DR | HOUSTON | 77041 | 13402 FIREBRICK DR | HOUSTON | TX | 77041-1713 |
| 165 | 1123830000008 | EASTWOOD DIAMOND | 13602 CHIMNEY SWEEP DR | HOUSTON | 77041 | 13602 CHIMNEY SWEEP DR | HOUSTON | TX | 77041 |

VELASQUEZ PETRA D
13339 BLAZEY DR
HOUSTON TX 77041-1563

BELLO PAULA SALVADOR
13328 FIREBRICK DR
HOUSTON TX 77041-1865

MCKEE WILLIAM R & CAROLINE
13411 BLAZEY DR
HOUSTON TX 77041-1565

T V H LAND CO LP
420 THROCKMORTON ST STE 710
FORT WORTH TX 76102-3724

LOZANO JAVIER
13410 FIREBRICK DR
HOUSTON TX 77041-1713

AYRES NANCY
13427 BLAZEY DR
HOUSTON TX 77041-1565

CHAVEZ JOSE S & ROSAURA G
13422 FIREBRICK DR
HOUSTON TX 77041-1713

HERRERA GENARO & OFELIA
13426 FIREBRICK DR
HOUSTON TX 77041-1713

CAMARGO CYNTHIA GUZMAN
13607 BLAZEY DR
HOUSTON TX 77041-1575

OCAMPO MIGUEL & ELVIA
13322 FIREBRICK DR
HOUSTON TX 77041-1864

MARTINEZ OMAR & LORENA
13407 BLAZEY DR
HOUSTON TX 77041-1565

PEREZ MARIA
13402 FIREBRICK DR
HOUSTON TX 77041-1713

CRUZ HERDI
13406 FIREBRICK DR
HOUSTON TX 77041-1713

PALOMARES ROLFI
13423 BLAZEY DR
HOUSTON TX 77041-1565

MAI TAI NOODLE HOUSE & GRILLS LLC
9344 JONES RD STE O
HOUSTON TX 77065-5361

DELEON MANUEL
7503 STAMEN DR
HOUSTON TX 77041-1537

CARRIZALES MARCO ANTONIO MADRIGAL
13603 BLAZEY DR
HOUSTON TX 77041-1575

RIVERA RUBEN E
13502 FIREBRICK DR
HOUSTON TX 77041-1715

CASTRO NORMA &
13403 BLAZEY DR
HOUSTON TX 77041-1565

GALINDO VICTOR
13330 FIREBRICK DR
HOUSTON TX 77041-1865

MARADIAGA YEFRI L
13415 BLAZEY DR
HOUSTON TX 77041-1565

BARRERA ERASMO
13419 BLAZEY DR
HOUSTON TX 77041-1565

SFR JV 1 2019 1 BORROWER LLC
1508 BROOKHOLLOW DR
SANTA ANA CA 92705-5426

DOWDY MICHAEL W
13431 BLAZEY DR
HOUSTON TX 77041-1565

TVH LAND COMPANY LP
420 THROCKMORTON ST STE 710
FORT WORTH TX 76102-3724

ESTRADA JORGE R
13430 FIREBRICK DR
HOUSTON TX 77041-1713

SALGADO LEONEL
7914 SWAN HOLLOW CT
HOUSTON TX 77041-1255

CUSTODIO ENRIQUE & LETICIA
13506 FIREBRICK DR
HOUSTON TX 77041-1715

CHAVEZ MAURICIO & ISABEL
13619 BLAZEY DR
HOUSTON TX 77041-1575

CRUZ BARTOLO & HERIBERTA
13623 BLAZEY DR
HOUSTON TX 77041-1575

SERNA MARTIN
13602 FIREBRICK DR
HOUSTON TX 77041-1717

HA HUONG NGUYET
13635 BLAZEY DR
HOUSTON TX 77041-1575

FRANKLIN KAREN
13518 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

QUEST TRUST COMPANY
17171 APRK ROW STE 100
HOUSTON TX 77084-

SREY VANTHAN
13715 BLAZEY DR
HOUSTON TX 77041-1506

GUTIERREZ MARIA E
7443 KITE HILL DR
HOUSTON TX 77041-1605

CHIMNEY HILL C A INC
15995 N BARKERS LANDING RD STE 162
HOUSTON TX 77079-2471

DENARD FRED J
13615 BLAZEY DR
HOUSTON TX 77041-1575

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

MOLINA CESAR E
13518 FIREBRICK DR
HOUSTON TX 77041-1715

SCHALIT TRACI J
13631 BLAZEY DR
HOUSTON TX 77041-1575

LOPEZ CLARO G & LAURA J
13610 FIREBRICK DR
HOUSTON TX 77041-1717

MATA PRESCILIANO
13614 FIREBRICK DR
HOUSTON TX 77041-1717

ORTEGA CESAR A
13711 BLAZEY DR
HOUSTON TX 77041-1506

GARCIA ERNESTO & MARIA G
13626 FIREBRICK DR
HOUSTON TX 77041-1717

REYNA JERRY & DIANA
13723 BLAZEY DR
HOUSTON TX 77041-1506

LOGAN GEORGE A JR
13803 BLAZEY DR
HOUSTON TX 77041-1504

FERNANDEZ RAFAEL & ELIA
13510 FIREBRICK DR
HOUSTON TX 77041-1715

CAMPOS ALFONSO
13514 FIREBRICK DR
HOUSTON TX 77041-1715

DELATORRE IGNACIO & DANA
5714 ELDRIDGE GLEN DR
HOUSTON TX 77041-4295

HUNT CHARLES
13606 FIREBRICK DR
HOUSTON TX 77041-1717

MENJIVAR ULISES T
13703 BLAZEY DR
HOUSTON TX 77041-1506

ADDICKS GLYNNDA
2402 QUAIL VALLEY EAST DR
MISSOURI CITY TX 77459-3330

EICHELBERGER GEORGE W JR
13622 FIREBRICK DR
HOUSTON TX 77041-1717

GUTIERREZ CARLOS & MARIA S
13719 BLAZEY DR
HOUSTON TX 77041-1506

BLANCO MARIA T ESTATE OF
13514 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

LOPEZ JESUS
7414 WOVENWOOD LN
HOUSTON TX 77041-1625

MARTINEZ MANUEL G
13807 BLAZEY DR
HOUSTON TX 77041-1504

HILL BRITTANY D
5010 POPLAR GROVE DR
CHARLOTTE NC 28269-0405

MARTINEZ BRIANNA
13506 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

YOUNGBLOOD WILLIAM
7902 INGLE OAK DR
HOUSTON TX 77041-1273

GANZINOTTI ANDREA
13414 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

SALAZAR ART & ORALIA
13402 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

ISLA HOMES LLC
1210 MARCONI ST
HOUSTON TX 77019-4210

P & P GREEN TREE ENTERPRISES LLC
8411 MOSSHANG CT
HOUSTON TX 77040-1553

BANUELOS ERIKA YAZMIN & ERIK
13310 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

RAMIREZ LORENZO
13238 CHIMNEY SWEEP DR
HOUSTON TX 77041-1555

FAVELA NAOMI & GUSTAVO
14723 CHAPEL COVE CT
CYPRESS TX 77429-8095

GARCIA FATIMA G
13815 BLAZEY DR
HOUSTON TX 77041-1504

VACA JOSE
7522 LEMMA DR
HOUSTON TX 77041-1548

CET J PROPERTIES LLC
10823 EVERWOOD LN
HOUSTON TX 77024-5416

MARTINEZ RAUL D
13410 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

VILLALON JUVENTINO
13338 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

GARCIA ANTONIO & MARIA
13326 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

LINARES DULIO A
13318 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

CHOTO ANA
13306 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

HERNANDEZ JUAN C & DELMY L
13234 CHIMNEY SWEEP DR
HOUSTON TX 77041-1555

CASTILLO SALVADOR & SANJUANA
13811 BLAZEY DR
HOUSTON TX 77041-1504

HERRERA JOHN J IV
13510 CHIMNEY SWEEP DR
HOUSTON TX 77041-1558

PERALTA RAFAEL M
13426 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

ORTIZ ROQUE & LUCILA
19319 COLONY GROVE LN
KATY TX 77449-7497

GONZALES ANGEL EUGENIO VILLATORO
13406 CHIMNEY SWEEP DR
HOUSTON TX 77041-1556

ROMERO LUIS A
13334 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

QUEST TRUST COMPANY
17171 PARK ROW STE 100
HOUSTON TX 77084-4935

UMANZOR JOSE F
13314 CHIMNEY SWEEP DR
HOUSTON TX 77041-1554

TORRES MATILDA ESTATE OF
13242 CHIMNEY SWEEP DR
HOUSTON TX 77041-1555

TVH LAND COMPANY LP
420 THROCKMORTON ST STE 710
FORT WORTH TX 76102-3724

POPOOLA OLADELE & OLAYINKA
13607 SHORT BROOK LN
HOUSTON TX 77041-1280

GARCIA EMILIO & LORENA
13224 CHIMNEY SWEEP DR
HOUSTON TX 77041-1552

NOYOLA MARISELA
7630 LEMMA DR
HOUSTON TX 77041-1550

US SFE ASSET COMPANY 1 LLC
5001 PLAZA ON THE LK STE 200
AUSTIN TX 78746-1053

RAMIREZ JUANITA
7627 BROOKLEAF DR
HOUSTON TX 77041-1830

LARRAZABAL ELIZABETH
1378 COUNTRY PLACE DR
HOUSTON TX 77079-3126

MORALES JOSE J
7615 BROOKLEAF DR
HOUSTON TX 77041-1830

RODRIGUEZ MICHELLE
7602 LEMMA DR
HOUSTON TX 77041-1550

JONES CALE A
7546 LEMMA DR
HOUSTON TX 77041-1548

DAO PETER
7527 BROOKLEAF DR
HOUSTON TX 77041-1828

PEACO PAMELA R
15119 HOWLAND ST
HOUSTON TX 77084-2031

CLARK IKE
7634 LEMMA DR
HOUSTON TX 77041-1550

NOYOLA SAUL & MARTA M
7635 BROOKLEAF DR
HOUSTON TX 77041-1830

PFIRMAN RICHARD L
2611 CYPRESS CREEK PKWY STE A102
HOUSTON TX 77068-3730

MIRELES DAVID
7618 LEMMA DR
HOUSTON TX 77041-1550

CISNEROS JUAN A
7619 BROOKLEAF DR
HOUSTON TX 77041-1830

ESPARZA ARTURO S
7606 LEMMA DR
HOUSTON TX 77041-1550

TRAN HARRIS
13615 SHORT BROOK LN
HOUSTON TX 77041-1280

BROCKETT CHRISTOPHER
7603 BROOKLEAF DR
HOUSTON TX 77041-1830

HAMILTON REAL ESTATE INVESTMENTS LLC
18002 BLUES POINT DR
CYPRESS TX 77429-7600

ALROUSAN QASSEM WAEL
13226 CHIMNEY SWEEP DR
HOUSTON TX 77041-1552

JANDRES BERNARDINA
7639 BROOKLEAF DR
HOUSTON TX 77041-1830

LANDAVERDE JULIO
7626 LEMMA DR
HOUSTON TX 77041-1550

ALSOULIMAN ABEER
13618 BIRCH CANYON CT
HOUSTON TX 77041-1264

PULDO FELICIANO
7623 BROOKLEAF DR
HOUSTON TX 77041-1830

KUSKO DAVID J & REBECCA &
18303 W LITTLE YORK RD
KATY TX 77449-5761

SALGADO GUADALUPE
7611 BROOKLEAF DR
HOUSTON TX 77041-1830

FARLEY JOHN L
7607 BROOKLEAF DR
HOUSTON TX 77041-1830

GONZALEZ JOSE GUADALUPE VEGA
7542 LEMMA DR
HOUSTON TX 77041-1548

OJEDA BLANCA
7523 BROOKLEAF DR
HOUSTON TX 77041-1828

DIAZ YUDY
6610 JACKWOOD ST
HOUSTON TX 77074-7126

LEE TIN
7834 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1287

NAVA MARIA L
7517 BROOKLEAF DR
HOUSTON TX 77041-1848

MORALES JORGE
7127 WILLOW BRIDGE CIR
HOUSTON TX 77095-3233

WEBBER CARL & KATHERINE
205 S MAIN ST
PALMYRA MO 63461-1649

BRUNO FRANK J & JERI L
7507 BROOKLEAF DR
HOUSTON TX 77041-1848

CHIMNEY HILL COMMUNITY ASSOCIATION INC
15995 N BARKERS LANDING RD STE 162
CHIMNEY HILL IV V VI CIA
1400 BROADFIELD BLVD STE 600
HOUSTON TX 77084-5133

CANTU TAMMY
13315 BLAZEY DR
HOUSTON TX 77041-1563

ARCOS YENI M
13319 BLAZEY DR
HOUSTON TX 77041-1563

LOPEZ MIGUEL V & MARIA F
7521 BROOKLEAF DR
HOUSTON TX 77041-1848

CAMCHO ISMAEL BANDA
7519 BROOKLEAF DR
HOUSTON TX 77041-1848

VACA JOSE C & ROSA M
7522 LEMMA DR
HOUSTON TX 77041-1548

GRUPA LINDA KAY
7513 BROOKLEAF DR
HOUSTON TX 77041-1848

MILLIGAN RHONDA SUE
7510 LEMMA DR
HOUSTON TX 77041-1548

SINGH LAL & PARAMJEET
14715 ENGLEBROOK DR
HOUSTON TX 77095-3058

VASQUEZ TOMASA M
7427 BROOKLEAF DR
HOUSTON TX 77041-1827

VILTRES ALEXANDER
13311 BLAZEY DR
HOUSTON TX 77041-1563

SUH JUNG K
7826 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1287

MUNOZ ELIAS & YOLANDA
13314 FIREBRICK DR
HOUSTON TX 77041-1864

RODRIGUEZ JOMAG M
7530 LEMMA DR
HOUSTON TX 77041-1548

VACA JOSE C
7522 LEMMA DR
HOUSTON TX 77041-1548

MALONE MICHAEL
7515 BROOKLEAF DR
HOUSTON TX 77041-1848

BALLARD REVOCABLE TRUST
16506 DUNLEITH CIR
CYPRESS TX 77429-4832

BACHAND MARK R
7830 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1287

SALGADO JUAN U
13146 PEBBLEWALK CIR NORTH
HOUSTON TX 77041-1823

MENDOZA MIGUEL
13307 BLAZEY DR
HOUSTON TX 77041-1563

DIAZ JEORGE
5018 SCHULER ST
HOUSTON TX 77007-3352

NGO TAI VAN
13312 FIREBRICK DR
HOUSTON TX 77041-1864

ALVAREZ MAXIMILIANO & REYNA
13323 BLAZEY DR
HOUSTON TX 77041-1563

GAZI EMRAN H
15703 PARK CENTER WAY
HOUSTON TX 77059-4051

SAVORY REBECA E
16902 KILWINNING DR
HOUSTON TX 77084-1842

MCNINCH KIMBERLY RAE
9125 HIGHWAY 6 N STE 2325
HOUSTON TX 77095-2359

TORRES FERNANDO
7802 PICKFORD KNOLLS CT
HOUSTON TX 77041-1274

TRAN JENNIE
7802 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1283

SANCHEZ ERNESTO
13606 CHIMNEY SWEEP DR
HOUSTON TX 77041-1568

ALAMILLO MYRIAM
13327 BLAZEY DR
HOUSTON TX 77041-1563

NINO JUAN CARLOS M
13320 FIREBRICK DR
HOUSTON TX 77041-1864

PEREZ GLORIA
13614 CHIMNEY SWEEP DR
HOUSTON TX 77041-1568

CURRENT OWNER
7810 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1283

REYES ISMAEL JR
13703 PICKFORD KNOLLS DR
HOUSTON TX 77041-1286

ROBLES DARIO
13318 FIREBRICK DR
HOUSTON TX 77041-1864

SALGADO MARIA F
13335 BLAZEY DR
HOUSTON TX 77041-1563

REED ROWDY R
13618 CHIMNEY SWEEP DR
HOUSTON TX 77041-1568

BRANCH REGINALD W
7806 WESTBROOK BRIDGE DR
HOUSTON TX 77041-1283

CHAVARRIA MARIA G
13622 CHIMNEY SWEEP DR
HOUSTON TX 77041-1568